User Manual Draft for Integrated Road Accident Database (iRAD) Mobile / Web Application.



SUBMITTED TO:

MINISTRY OF ROAD TRANSPORT AND HIGHWAYS (MORTH)

SUBMITTED BY:

NATIONAL INFORMATIC CENTRE SERVICES INCORPORATED



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Chapter-1

1. Introduction to iRAD

The Integrated Road Accident Database (iRAD) Project is an initiative of the Ministry of Road Transport and Highways (MoRTH), Government of India and is funded by World Bank, with objective to improve road safety in the country.

To achieve this, establishment of an accurate and uniform road accident data collection mechanism from all over India, is required. For this purpose iRAD mobile & web application is developed. This is followed by training & handholding support to stakeholder departmental users through state / district roll out managers & master trainers. Beta version of iRAD application is being launched in 59 lighthouse districts of 6 pilot states i.e. Madhya Pradesh, Maharashtra, Karnataka, Rajasthan, Tamil Nadu, Uttar Pradesh on 15th February, 2021. This will facilitate road accident data collection by 4 stakeholder departments Police, Transport, Highways & Health Departments following Standard operating procedure. Through collection of road accident data from all over the country, road accident database will be developed. The collected data will be analysed using different data analytics technique for identification of accident prone areas and causes of the accidents. The analysis output will be represented in appropriate dashboards, accessible to higher authorities of stakeholder departments and MoRTH. And accordingly strategy will be formed for reduction of number of road accident in India and enhance road safety. NICSI & IIT Madras have been jointly entrusted to carry out design, Development, Training, and implementation of iRAD project, along with research & analysis activities.

NICSI is responsible for Development of iRAD mobile (Android and iOS) & web application to facilitate collection & analysis of road accident data, establishing the required cloud infrastructure / Server setup and its maintenance, training to users/stakeholders, establishment of helpdesk & Program roll-out across India. IITM is associated with architecture designing, organizing Stakeholder conferences, development of training content and training of trainers/master trainers, research & data Analytics activities.

iRAD project implementation started through 2 days orientation program & iRAD mobile / web application (alpha version) demonstration / training for stakeholder departments of selected fifty nine lighthouse districts (selected by the respective states). Due to COVID-19 situation, the Orientation Programme was conducted online through Video conferencing with the support of MoRTH, NIC/NICSI and IIT Madras. All the States were requested to share the details of their relevant existing applications for data integration with iRAD, and also to share existing Geospatial data (jurisdiction, location of offices, road network etc.), designation hierarchy / master directory and other relevant details.

The stakeholder departmental users were provided with alpha version of iRAD application, user manual and user credentials and the users were requested to provide feedback through Online feedback mechanism or directly through feedback option in the iRAD application. Based on the User feedback, common APIs & supporting documents are developed for easy integration with existing applications of user departments and based on feasible / suitable user feedback iRAD application is modified / enhances and beta version is being launched on 15th February, 2021 lighthouse districts of pilot states of India.



2. Overview of iRAD & its features

The main objective of the project is development of Integrated Road Accident Database (iRAD), to enrich the accident databases from every parts of the country. The project would generate various types of insights by analyzing the collected road accident data across the country through implementation of data analytics technique. The proposed system would represent the analysis output through Monitoring & Reporting Dashboard & Analytics Dashboard for easy understanding and accordingly forecasting & Decision Making by Apex Authorities for formulation of new policies & strategies. The outcome of the project would be enhanced road safety i.e. 'Safe Road for All' in India.

Ministry of Road Transport and Highways is main stakeholder and decision maker for future planning and policy implementation for enhancement of road safety in the country. Other stakeholders are:

- State / UT Police Department
- State / UT Transport Department
- State / UT Highways Department
- State / UT Health Department

These departments act as data contributor as well as data consumers. Scope of future integration with 108 Ambulance/ ERS, Blood Banks, Insurance Companies, Prison / Court etc. are also envisaged.

The iRAD application would facilitate collection & hosting of all the road accident data, collected in predefined format from accident location throughout the country in a centralized accident database. As per standard operating process currently followed in India, in case of any incident of road accident, multiple stakeholders are associated. Thus, all the stakeholders associated with road accident will be associated with iRAD project also.iRAD would have customized interfaces for all the key stakeholders, which comprise of Police, Transport and Highways & Health Departments currently. Additionally, blood bank, insurance and other associated departments are also being considered for on-boarding in the future.

- **2.1** Customised Mobile & Web application with multi-lingual support View / update access of iRAD application is being provided through customized web & mobile interfaces for the various users / stakeholders. The same application will be used by all the States/UTs with respective logo and language selection facility
- **2.2** User management module facility for user management through creation of User credential by stakeholder department. Created user credential based secured login.
- **2.3** User roles Multiple user roles of iRAD application are
 - Central Administrator
 - State Administrator
 - District Administrator
 - Station / Office Administrator
 - Data Collector / the end-user.
- **2.4 Horizontal Integration -** The iRAD application is horizontally integrated between Police, Transport, and Highways & Health Departments currently to facilitate timely exchange of information among the users of different stakeholders of States / Union Territories in the country.



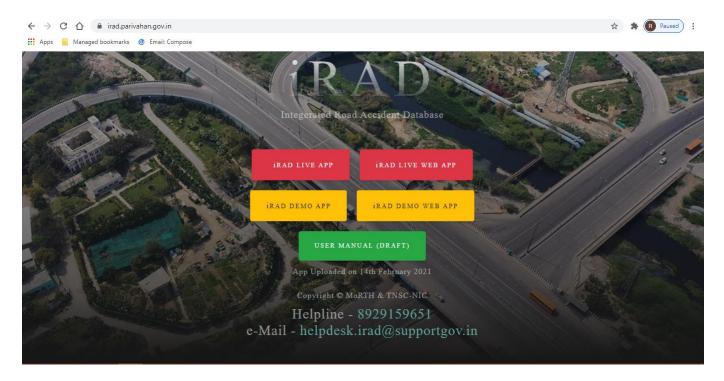
- **2.5** Inter & Intra-departmental workflow iRAD support road accident SOP based workflow inside department following departmental hierarchy and reporting structure. Also inter-departmental workflow is supported following standard SOP.
- **2.6 Hierarchy & Role based data collection** based on departmental designation, hierarchy & role based activities are supported in iRAD. user role-based data capturing, processing / handling and respective data dissemination facility is available.
- **2.7** Easy data collection supported through combo-box / Radio button Data collection is easy with availability of combo-box / radio button
- 2.8 Data Collection & iRAD inter-departmental workflow The major responsibility of data entry rests with the Police Department. After capturing the relevant road accident details by the officials of Police Department an alert is sent to the officials of Transport and Highways Departments. This follows by motor vehicle inspection request letter generation by the officials of Police Department to the Motor Vehicles Inspector of Transport Department and based on the request by the Police Department the vehicle is inspected by the Motor Vehicles Inspector concerned and the details pertaining to the Transport Department is captured, the Accident Information Report (AIR) is generated as per the Motor Vehicles Act and the Rules made there under by the respective States / UTs. Similarly, the details pertaining to the Highways Department are captured by the concerned Assistant Engineer of Highways / Public Works Department.
- 2.9 Spatial and non-spatial data collection facility iRAD mobile & web application, is a single integrated and role-based application. for collection & viewing of accident related information through handheld devices (Mobile/Tablet) / web application. The backbone of iRAD depends on collection of accurate non-spatial data of all road accident with respective spatial details (integrated with Geographic Information System) i.e. accurate location information for every road accident, in terms of Latitude & longitude value throughout the country. Apart from spatial & Non-spatial data, it has got facility to capture photo and video of accident site.
- 2.10 Integration with existing services In order to reduce data entry effort & data collection time, iRAD is integrated with Vahan & Sarathi services. Web Service Interface is created between iRAD Application and VAHAN and SARATHI to pull data pertaining to Vehicles and Driving Licenses so that the task of field data entry is minimized. Thereafter, the data is pushed to CIPRUS/CCTNS/other state specific application and FIR generation process is simplified and the First Information Report (FIR) is generated by the officials of Police Department and the data is disseminated to multiple stakeholders under whose jurisdiction the accident site comes in.
- **2.11 Simplified FIR creation through integration with existing system** Exchange of data between iRAD application and current system being used for FIR creation to reduce redundant effort for road accident data collection and pushing of FIR number to iRAD (currently this work is in progress).



- **2.12 iRAD Dashboard** The iRAD web application is having credential relevant dashboards to represent the results of basic summary analysis of the data collected from the accident site in form of charts and reports for respective area of operation.
- **2.13 Offline data entry** In absence of internet connectivity, facility for offline data entry & storage is available.

3. Downloading iRAD application & User Manual –

iRAD mobile application & user manual can be downloaded from below link – https://irad.parivahan.gov.in/



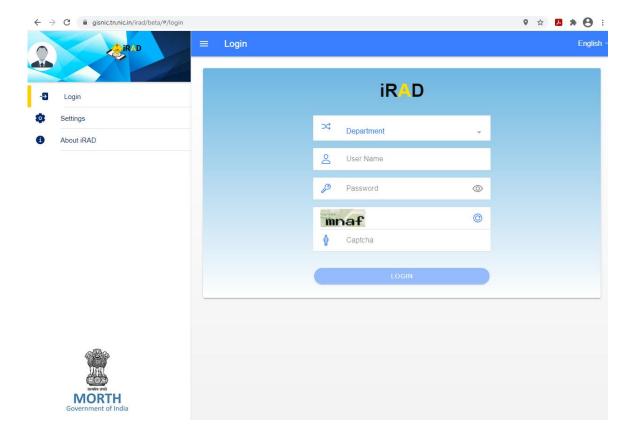
For hands on practicing, Demo application needs to be downloaded by clicking on "Download Demo Apk".

For collection of actual accident data (live data) Live APk needs to be downloaded by clicking on "Download Live Apk".

For downloading of iRAD user manual, "User Manual" button needs to be clicked.



iRAD web application can be accessed from below link https://irad.parivahan.gov.in/irad/webapp



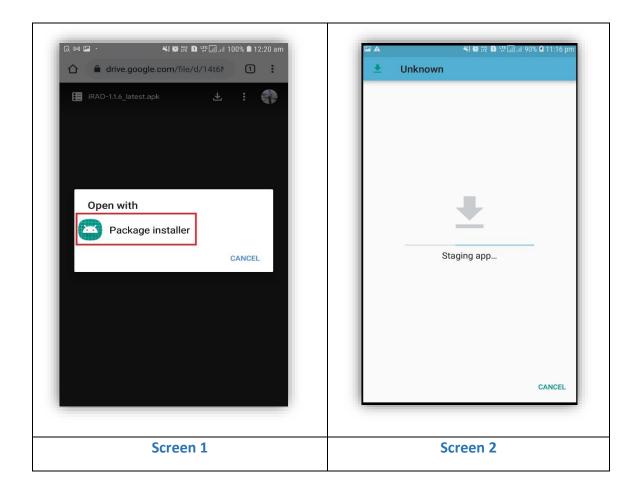


Chapter-2

2. Using iRAD Mobile Application

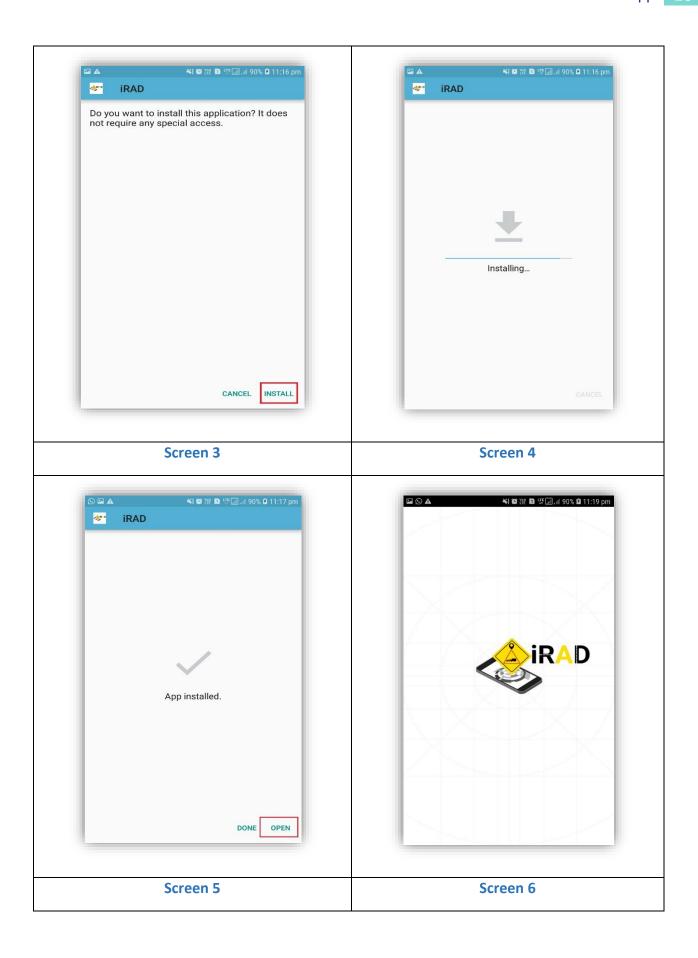
2.1 Installing iRAD Mobile Application

- 1. Download iRAD mobile application
- 2. Install the application in tab / mobile that will be used for data collection.
- 3. On click of apk file following screen will appear on your mobile/tab.
- 4. On click of package installer app installation begin (Screen 1 and Screen 2).



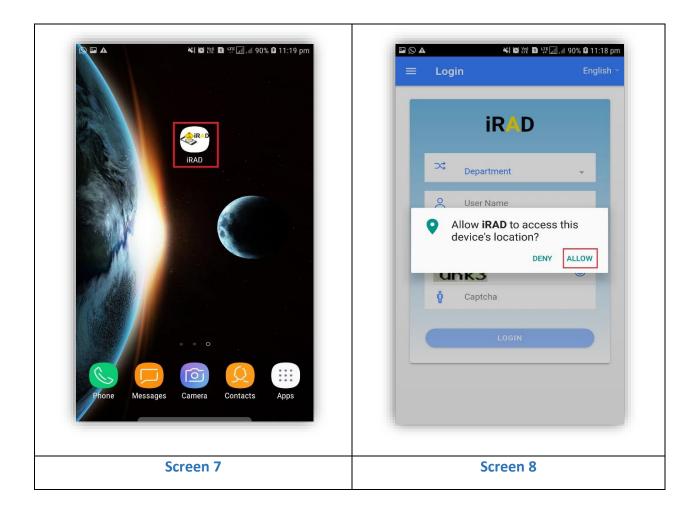
- 5. The below window will open click on Install (Screen 3).
- 6. The application will be installed in your handheld device (mobile / Tablet) (Screen 4).
- 7. After the application is installed in your handheld device (mobile / Tablet) click on open (Screen 5).
- 8. After click on app will first welcome screen will appear with iRAD logo (Screen 6).







- 9. After installation of app simultaneously short cut icon will be created for regular usage. (Screen 7).
- 10. iRAD Application login page will open while opening for first time it will show the following messages "Allow iRAD to access tis device's location?" and "Allow iRAD to phone calls" click on "Allow" (Screen 8).



2.2 Use of iRAD Application

iRAD application will be used by Police, Transport, Highways & Health Departments. Department specific use & step by step methods are provided below —

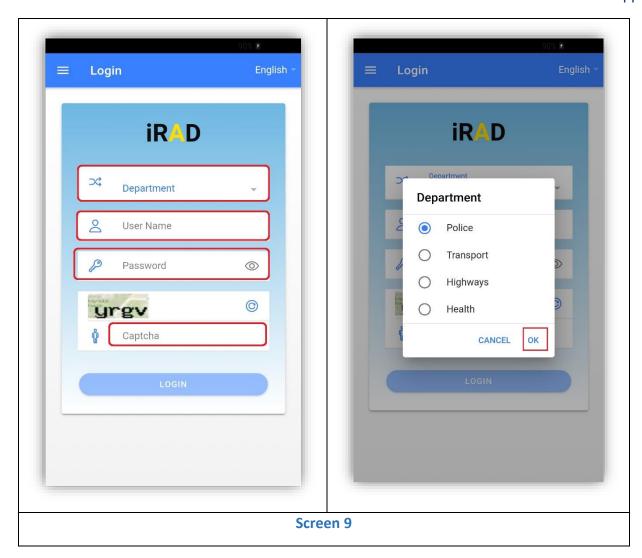
2.2.1 Log into iRAD Mobile Application

Login IDs and passwords are used as a form of authentication in the iRAD app. To log in to the RADMS system, every user needs a Login ID and a Password. The system checksfor the validity of the Login ID and the Password. Existing login id of uses which is being used for other systems of the state will be used as login credential. In case of unavailability of such login credential, new Login ID and the Password will be made available by the System Administrator, initially default password will be provided. User can change this password and set as per one's choice (Screen 9).



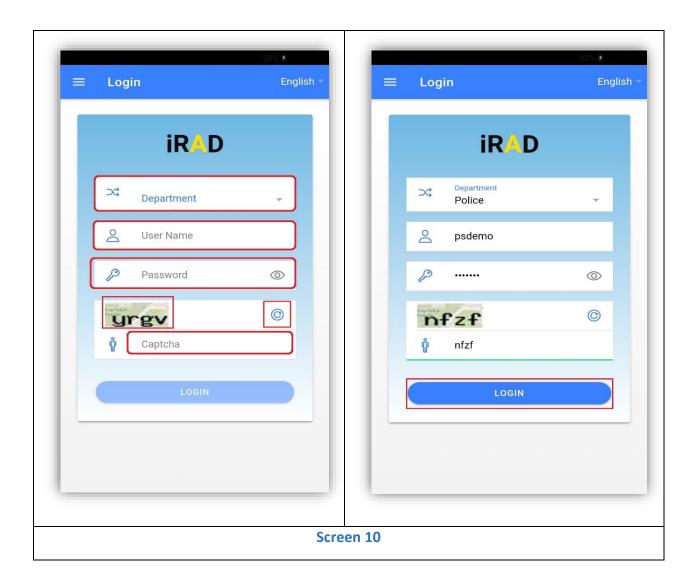
POLICE DEPARTMENT





- 1. In the log in page following four fields are available
 - 1. Department
 - 2. User Name
 - 3. Password
 - 4. Captcha
- 2. Click on following 3 department's name will be displayed in (Screen 9).
- 3. Select "Police" / "Transport" / "Highways" as applicable > Click OK
- 4. Enter your User Name
- 5. Enter Password
- 6. Enter Captcha (Screen 10).
- 7. In case wrong captcha value is entered / new captcha is required, Click on

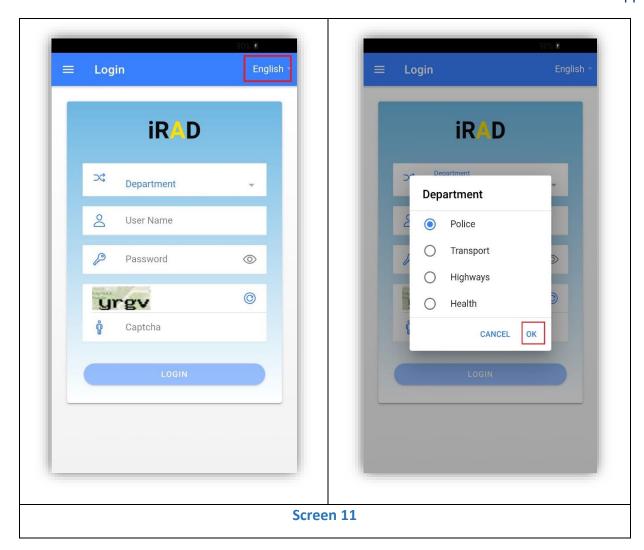
- 8. Regenerate captcha value / Refresh button new captcha value will be available Enter the value in space specified to enter captcha.
- 9. Click on "LOGIN" button (Screen 10).



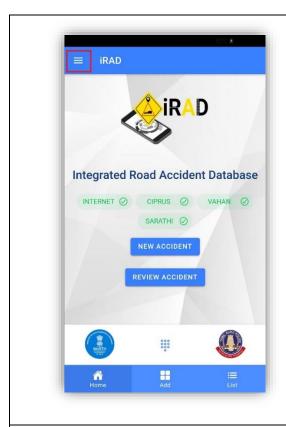
2.2.2 Setting Preferred Language

- 1. iRAD app in login page on top right language option is displayed (Screen 11).
- 2. By default English is displayed once clicked on English, List of languages will be displayed as per convenience user needs to select preferred Language click on ok. Application will be translated to selected language (Screen 11).



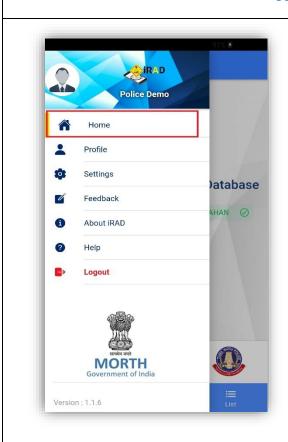


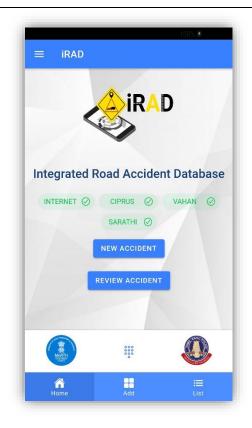
- 3. Click on Top left part of landing page as shown in (Screen 12) below User details is displayed 7 options are available Home, Profile, Settings, Feedback, about iRAD, Help, Logout.
- 4. Clicking on Home on side bar landing page will appear (Screen 13).





Screen 12



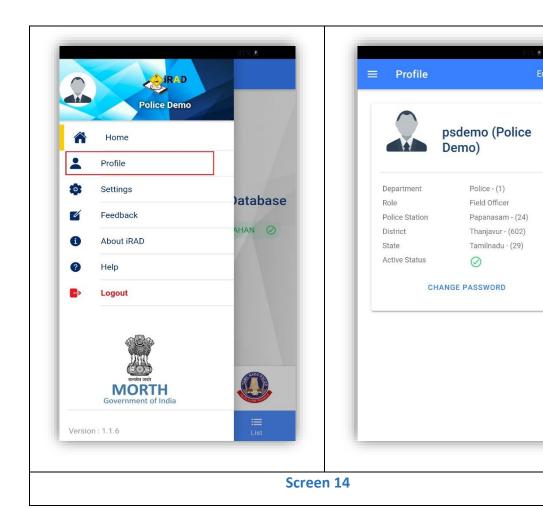


Screen 13



2.2.3 Checking User Profile in iRAD App

- 1. Click on Profile details will be displayed (Screen 14) containing below details
 - a. User Name
 - b. Department
 - c. Role
 - d. Police Station (Police Department)
 - e. District
 - f. State
 - g. Active Status





2.2.4 Checking Settings for app.

h. On click settings in side bar app will check for an update in local storage (Screen 15).



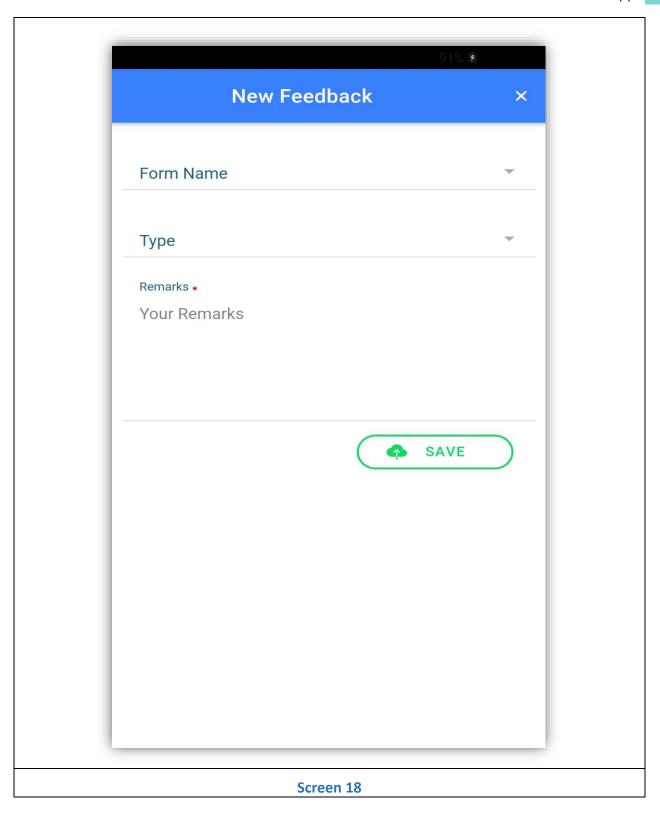


2.2.5 Providing feedback on app.

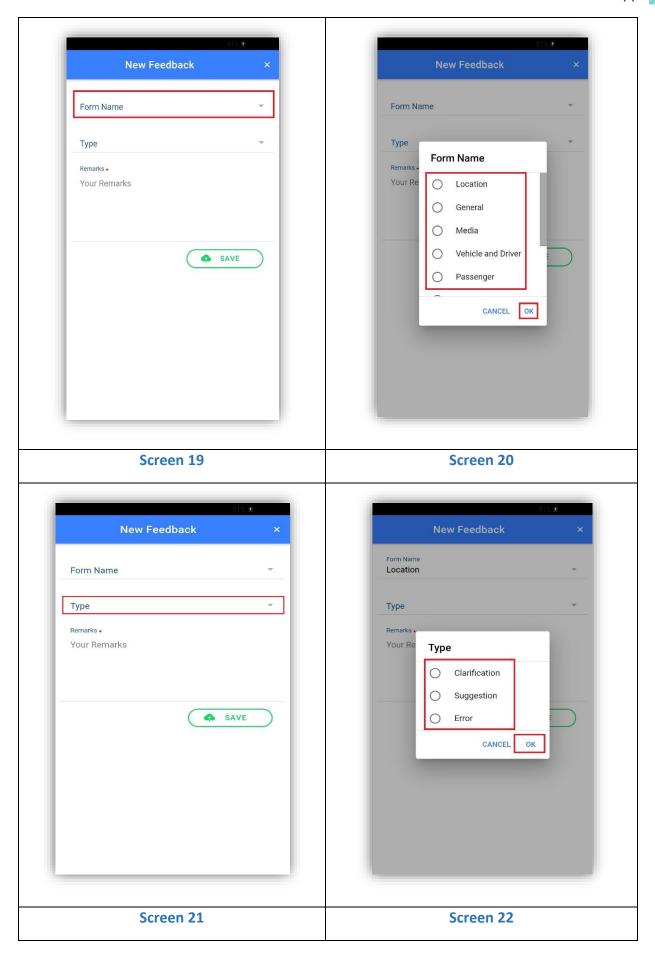
- 2. On click feedback button in sidebar the list of feedback will appear (Screen 16).
- 3. On top of screen the total number of feedbacks given number will appear (Screen 17).
- 4. On click right corner of the feedback screen click on button feedback form will appear (Screen 17).
- 5. On click of form name list of form names will appear click on radio button to select desired form name like location, vehicle driver, media and passengers click on ok button (Screen 19 & 20).
- 6. On click of type of feedback window contains list of clarification, suggestion and error will appear select radio button click on ok button to select the list (Screen 21 and Screen 22).
- 7. After entering above two fields need to enter any remarks is there that is mandatory field (Screen 23).
- 8. After entering all the three fields click on ok button to submit the feedback (Screen 24).

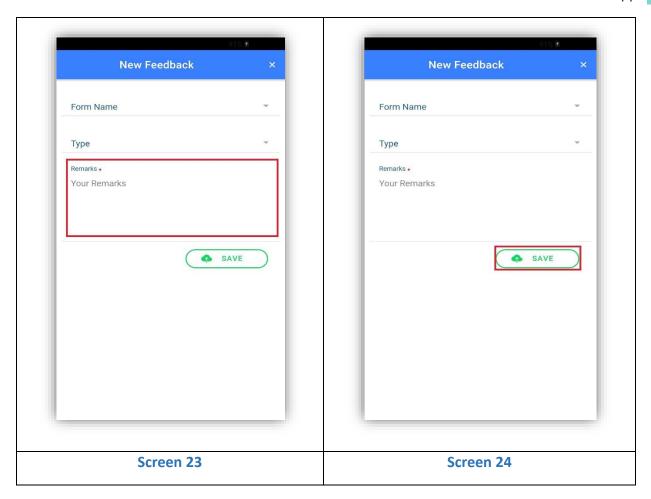












2.2.6 Get information about iRAD process flow.

9. Click on about iRAD app process flow screen will appear (Screen 25).

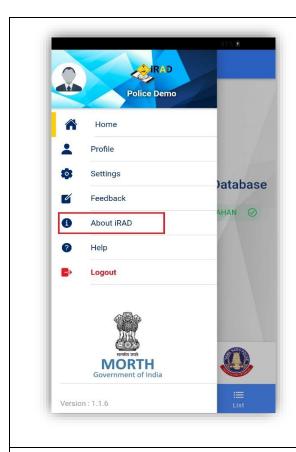
2.2.7 Get information about iRAD app help line number and Email.

10. Click on side bar menu help the new screen will appear having the details of help line and email information (Screen 27 and 28)

2.2.8 Logout & Re-Login into iRAD Application.

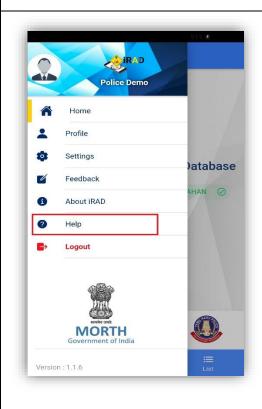
11. Click on Logout (Screen 29 and 30).







Screen 26 Screen 25





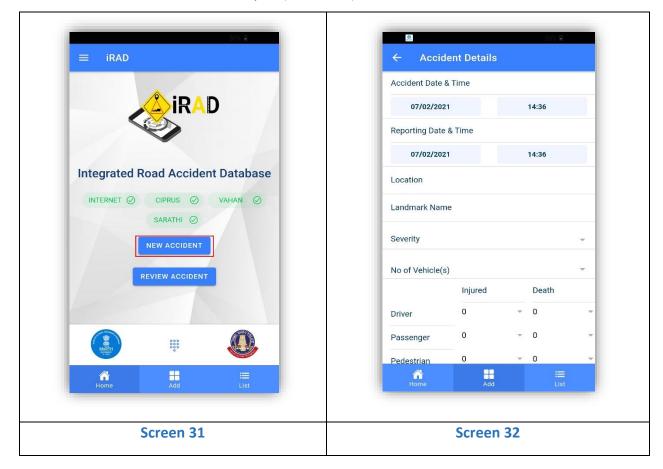
Screen 27 Screen 28





Chapter-3

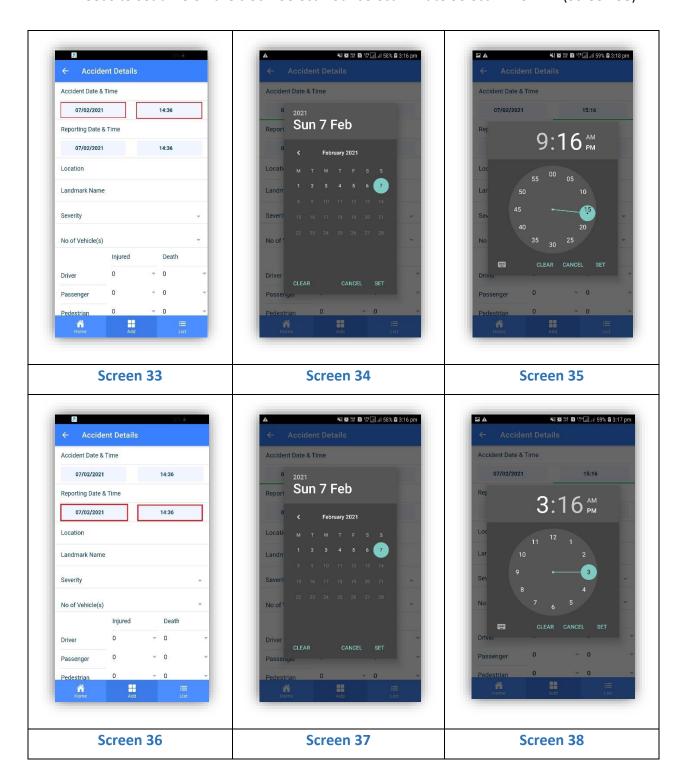
- 3.1 Using iRAD by Police Department (User Role: Data collector): Registering New Accident.
 - 1. Click on "NEW ACCIDENT" (Screen 31).
 - 2. Location details screen will open (Screen 32).



- **3.** User needs to set Accident Date and Time. The page will open with current date &time, iRAD application allows to record up to 4 days old accident (Screen 33).
- 4. Select accident date by clicking on date field select accident date from the calendar displayed (dates more than 15 days older than current date are disabled) click on "SET" (Screen 34).
- 5. Select accident time by setting time on clock by default current time is displayed, user needs to set time on the clock. Select Hour select Minute Select AM or PM (Screen 35).
 Note Accident which took place more than 4 days ago are not possible to record in the iRAD system. Thus, user are requested to record Accident data within stipulated time frame. Accident reported late than specified time limit of 15 days is not allowed to record in iRAD system.



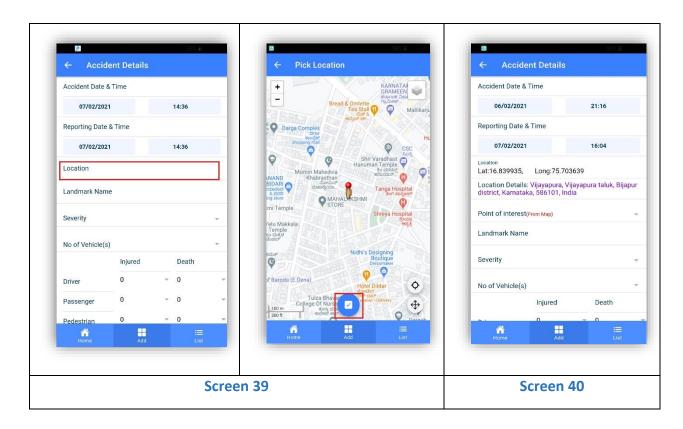
- 6. User needs to set Reporting Date and Time. The page will open with current date &time, iRAD application allows to record up to 1 days old accident (Screen 36).
- **7. Select Reporting date** by clicking on date field select Reporting date from the calendar displayed Click on "SET" (Screen 37).
- **8. Select Reporting Time** by setting time on clock by default current time is displayed, user needs to set time on the clock. Select Hour select Minute Select AM or PM (Screen 38).





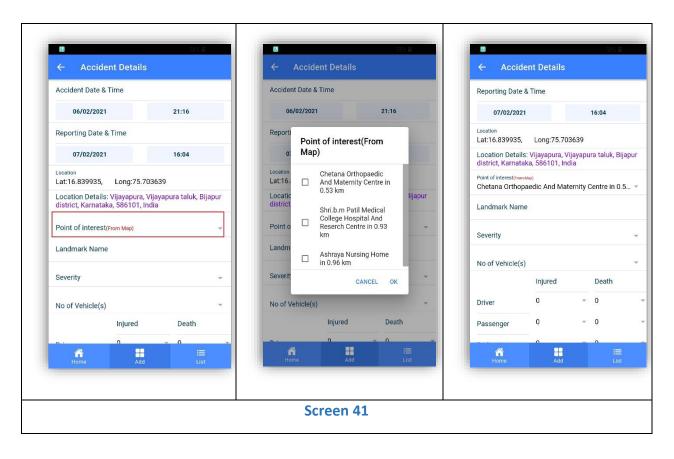
3.1.1 Location Details

- **9. Select Accident Location** User needs to select accident location on map click on location google street map will open (Screen 39).
- **10. Picking Latitude-Longitude information of accident location** The latitude- longitude value of the point on the map indicated by the end point of the Pin icon. To collect the precise location the user may adjust the position of the pin by pan movement of the map manually. After which user needs to click on the icon available at the bottom center of the screen and the latitude longitude value gets captured (Screen 40).

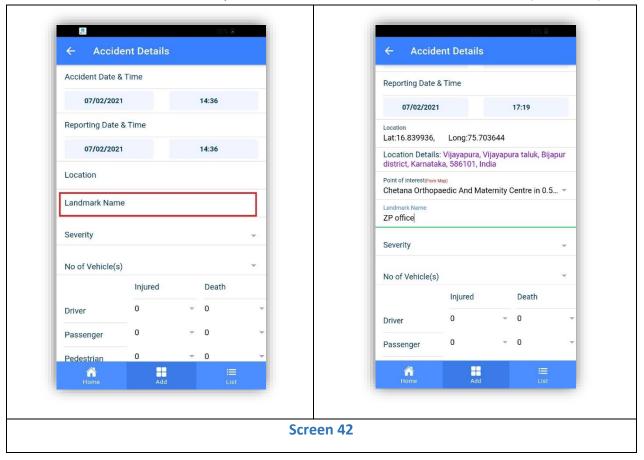


11. Select Point of interest – Click on Point of interest list of 3 points of interest will be displayed (these are well known points around selected accident location automatically captured from map with their distance in Km from select location) against every point there is check box available Select the preferred point / points click on ok Select Points / Points will be recorded (Screen 41).



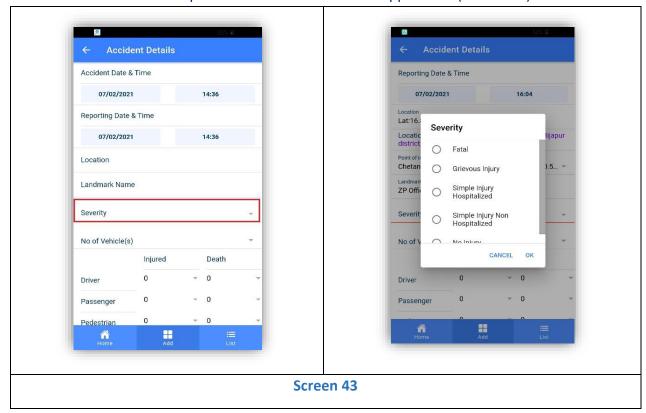


12. Enter Landmark Name Key in the name of landmark of accident location (Screen 42).

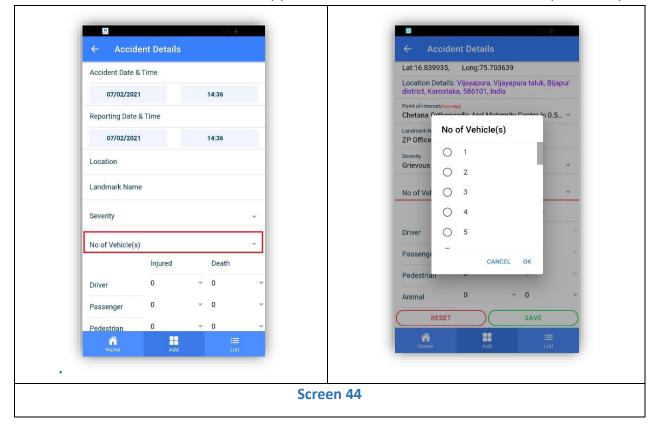




13. Select Severity of Accident click on Severity Type list will be displayed against each option, one Radio Button will be available select appropriate option by clicking Radio button click on ok the selected option will be recoded in iRAD application (Screen 43).



14. Select Number of Vehicle(s) associated with the accident from the available dropdown list select the number of vehicle(s) associated with the accident click on ok (Screen 44).

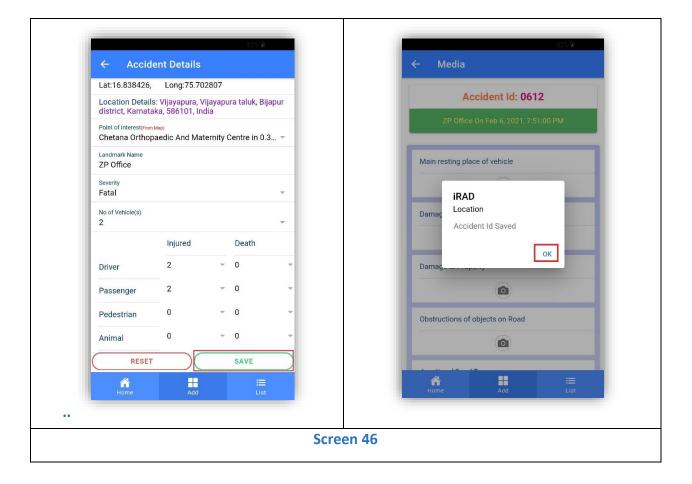


- **15.** Select Number of Driver(s) impacted by the accident user needs to select number of drivers impacted by the accident. Two options are available for this purpose injured & death (Screen 45).
 - a. Select number of injured Drivers click on injured dropdown list will be displayed showing the list of numbers select the appropriate value from dropdown list click ok.
 - b. **Select number of Drivers who died c**lick on Death dropdown list will be displayed showing the list of numbers select the appropriate value from dropdown list click ok.
- **16. Select Number of Passenger(s) impacted by the accident** user needs to select number of passengers impacted by the accident. Two options are available for this purpose injured & death (Screen 45).
 - a. Select number of injured Passengers click on injured dropdown list will be displayed showing the list of numbers select the appropriate value from dropdown list click ok.
 - b. Select number of Passengers who died click on Death dropdown list willbe displayed showing the list of numbers select the appropriate value from dropdown list click ok.
- **17. Select Number of Pedestrian(s) impacted by the accident** user needs to select number of pedestrian(s) impacted by the accident. Two options are available for this purpose injured & death (Screen 45).





18. Saving accident details – In order to save accident details entered in iRAD application user needs to click on save button on saving of accident Location & other details entered in iRAD application, Accident Id (auto-incremental number) will be auto-generated. Application will show message "Accident Id Saved" along with accident Id, landmark of accident, date and time of accident click on Ok (Screen 46).

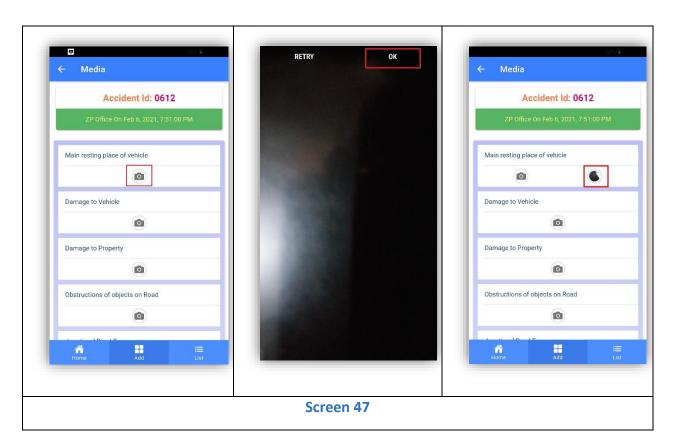


3.1.2 Media

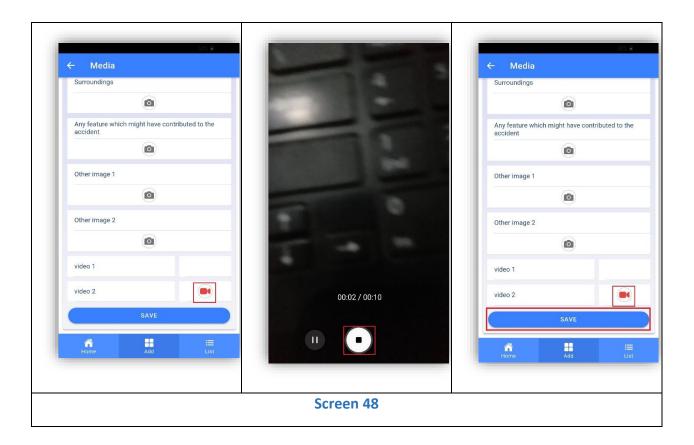
- 19. The photo can be captured under multiple groups as listed below
 - i. Main resting place of Vehicle
 - a. Main resting place of Vehicle
 - b. Damage to Vehicle
 - c. Damage to Property
 - d. Obstructions of Objects on Road
 - e. Junction / Road Type
 - f. Road Surface
 - g. Skid Marks
 - h. Surroundings



- i. Any feature which might have contributed to the accident
- j. Other Image 1
- k. Other Image 2
- ii. Two videos can be captured & uploaded under Video1 & Video 2
 - I. Video 1
 - m. Video 2
- **20. Upload captured photo** Once accepted, the photo will be added in media page against Damage to Vehicle small preview small round window will appear right side of the camera icon button. (Screen 47).
- **21.** Capture video pertaining to the accident For capturing of video, click on the symbol of the Video next to Video1 or Video 2 Video capture window will open start recording the video. After capturing the images and video's click on save button to upload the media files. (Screen 48).







Note – In accident site, user needs to capture basic information of accident & location details and create accident id. User needs to also capture Photo & Video of accident site.

In iRAD application user is allowed to record rest of the data after returning to their base location i.e. police station to facilitate easy time management and multitasking activity of user.

However, in order to maintain the data accuracy and resist unwilling data loss, it is always advisable that, user should collect all required data from accident site just after the accident has occurred / reported.

3.1.3 Accident Entry

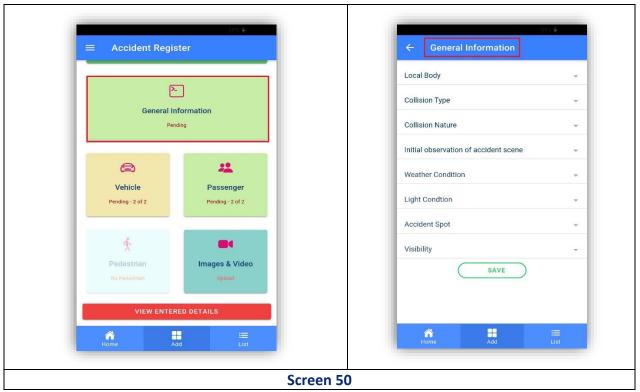
- **22. Accident Entry page** Accident entry page displays Accident Id, Landmark, Accident date and Time at the top. Additionally it includes the following 5 heads for capturing of accident data (Screen 49)
 - a. General Information
 - b. Vehicle & Driver
 - c. Passenger
 - d. Pedestrian
 - e. Images & Video



23. Data capture status - in accident entry page, initially all 5 tabs display data capture status "Pending". After recording & saving of required data, status changed to completed (Screen 49).



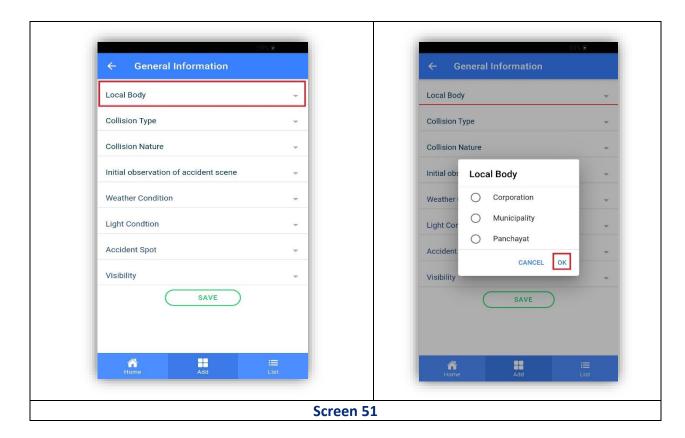
24. Opening General Information Page In accident entry page click on General information Tab General Information page will open (Screen 50).



3.1.3.1 General Information

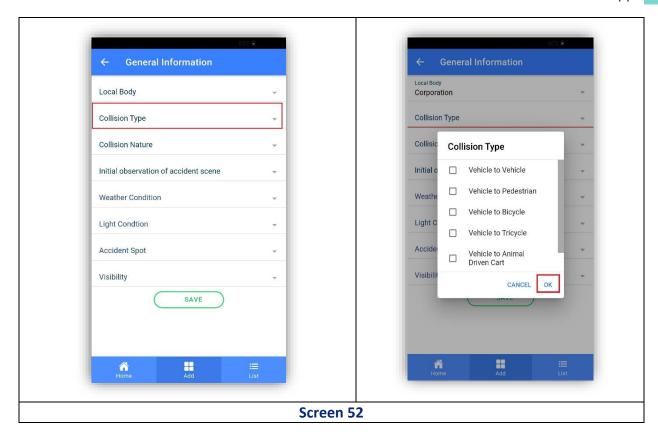
- **25.** Select Local Body click on Local Body Dropdown list will be displayed showing following 3 local body types
 - 1. Corporation
 - 2. Municipality
 - 3. Panchayat

Select the appropriate local body of accident location by clicking radio button next to local body type (Screen 51).

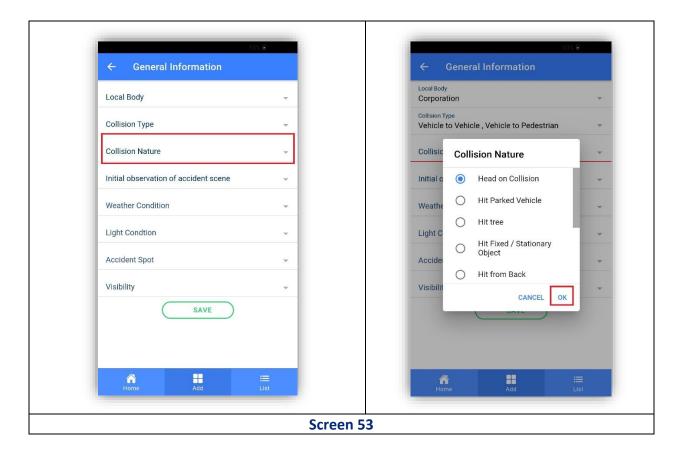


26. Select Collision Type – Click on Collision Type > Dropdown list will be displayed > Select the appropriate value from dropdown list by clicking radio button next to the applicable collision type (Screen 52)



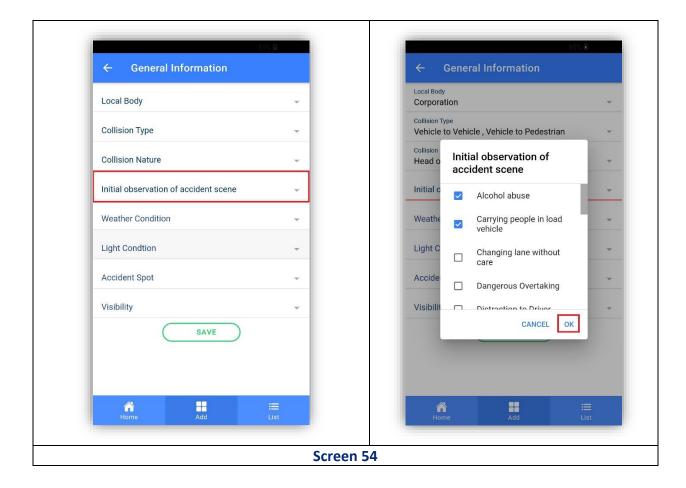


27. Select Collision Nature - Click on Collision Nature Dropdown list will be displayed Select the appropriate value from dropdown list by clicking radio button next to the applicable Collision Nature (Screen 53).

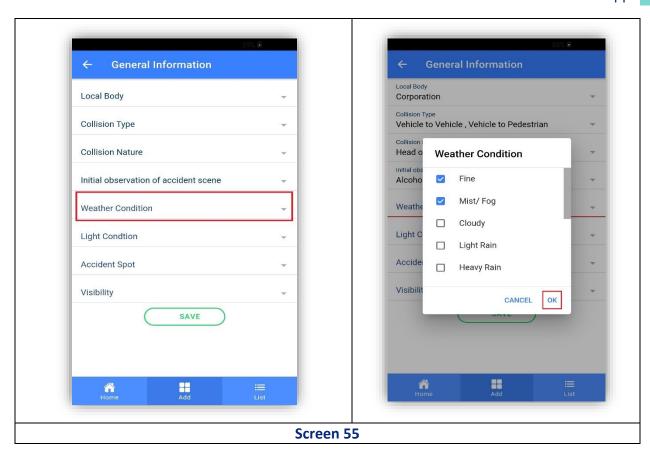




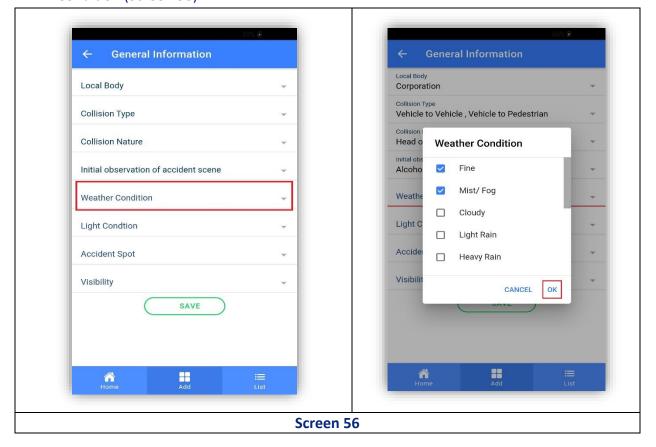
28. Select Initial Observation of Accident Scene Click on Initial Observation of Accident Scene Dropdown list will be displayed Select the appropriate value from dropdown list by clicking radio button next to the applicable Initial Observation of Accident Scene (Screen 54).



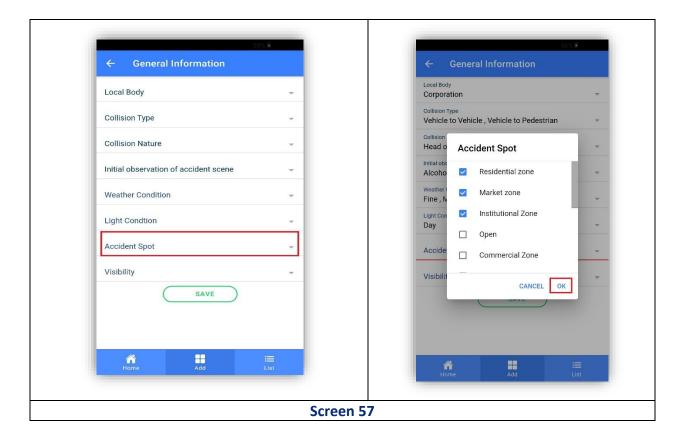
29. Select Weather Condition - Click on Weather Condition Dropdown list will be displayed Select the appropriate value from dropdown list by clicking radio button next to the applicable Weather Condition (Screen 55).



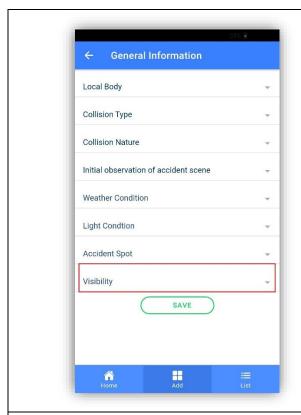
30. Select Light Condition - Click on Light Condition Dropdown list will be displayed Select the appropriate value from dropdown list by clicking radio button next to the applicable Light Condition (Screen 56).

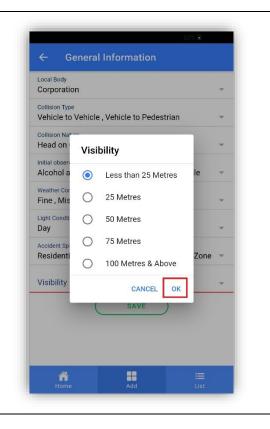


31. Select Accident Spot - Click on Accident Spot Dropdown list will be displayed > Select the appropriate value from dropdown list by clicking radio button next to the applicable Accident Spot (Screen 57).

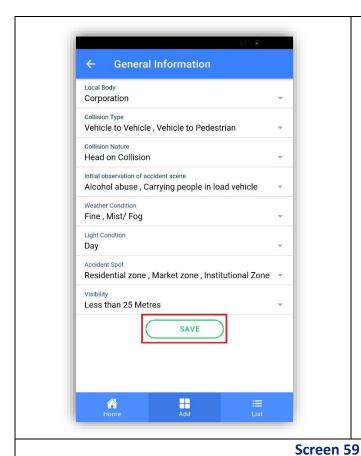


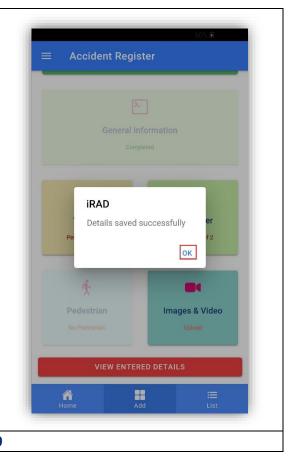
- **32.** Select Visibility Click on Visibility Dropdown list will be displayed Select the appropriate value from dropdown list by clicking radio button next to the applicable Visibility condition (Screen 58).
- **33. Save General Information** Click on save button details saved successfully message appears Click on Ok. Once the recorded data under General information Tab are saved successfully, in Accident Entry page, General Information Tab shows Completed and becomes disabled (Screen 59).





Screen 58





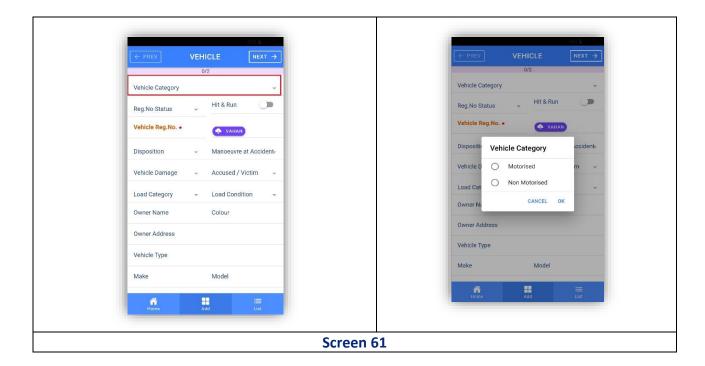
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3.1.3.2 Vehicle

34. Opening Vehicle Page – In accident entry page click on Vehicle & Driver Tab, Vehicle page will open (Screen 60).



- **35.** Click on vehicle category the two options will appear (Screen 61).
 - i. Motorised.
 - ii. Non-Motorised.

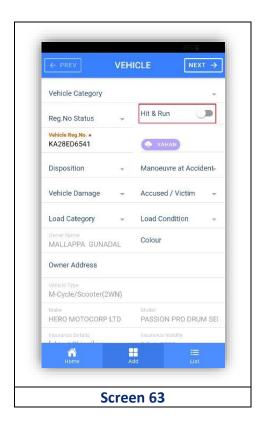




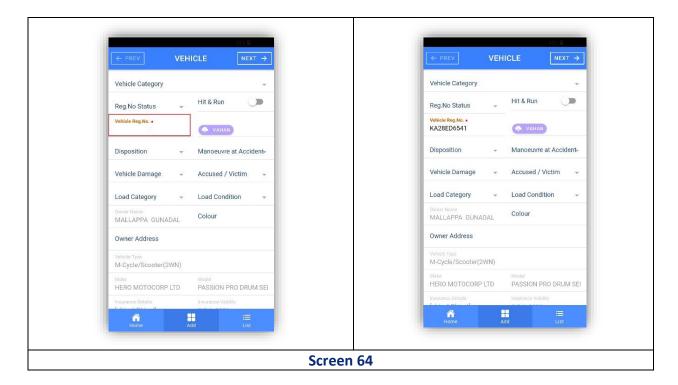
- **36.** Select registration status of vehicle (Screen 62)
 - 1. Known.
 - 2. Unknown.
 - 3. Without Registration



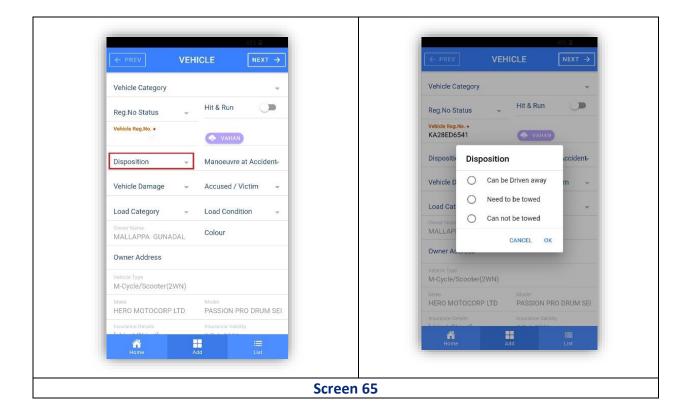
37. Record Hit & Run In case of Hit & Run, Switch needs to drag the button to right side next to Hit & Run (Screen 63).



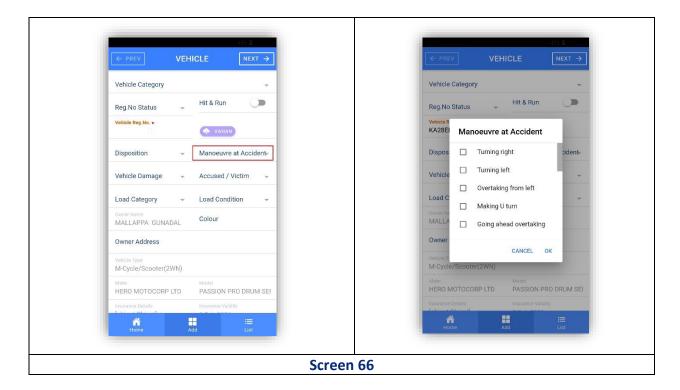
38. Select the Registration number status on click radio button given value from list clicking radio button to the applicable click ok (Screen 64).



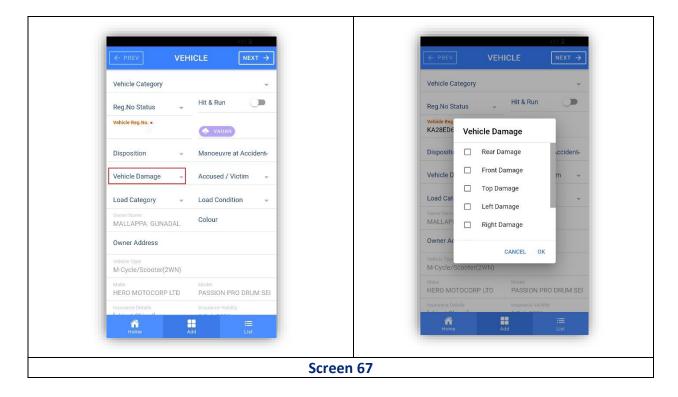
39. Select Disposition Click on Disposition Dropdown list will be displayed select the appropriate value from dropdown list by clicking radio button next to the applicable disposition (Screen 65).



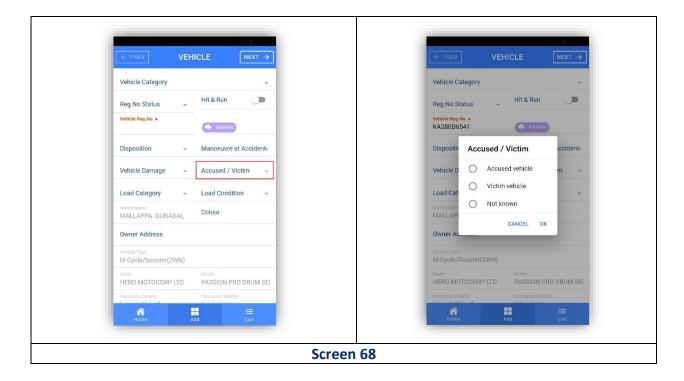
40. Select Manoeuvre at Accident click on Manoeuvre at Accident Dropdown list will be displayed Select the appropriate value from dropdown list by clicking radio buttonnext to the applicable Manoeuvre at Accident Click Ok (Screen 66).



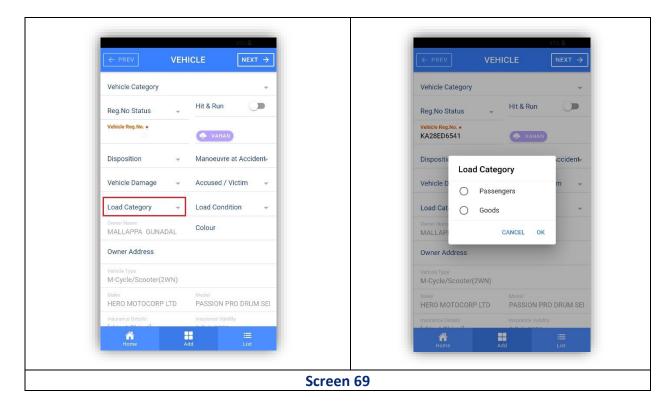
41. Select Vehicle Damage - click on Vehicle Damage Dropdown list will be displayed Select the appropriate value from dropdown list by clicking radio button next to theapplicable Vehicle Damage click ok (Screen 67).



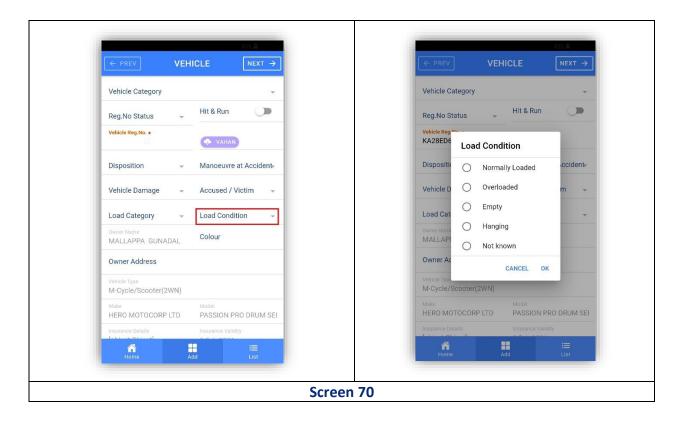
42. Select Accused/Victim click on Accused / Victim Dropdown list will be displayed select the appropriate value from dropdown list by clicking radio button next to the applicable Accused / Victim to select whether the vehicle is accused / victim click ok (Screen 68).



43. Select Load Category click on Load Category Dropdown list will be displayed select the appropriate value from dropdown list by clicking radio button next to the applicable Load Category click ok (Screen 69).



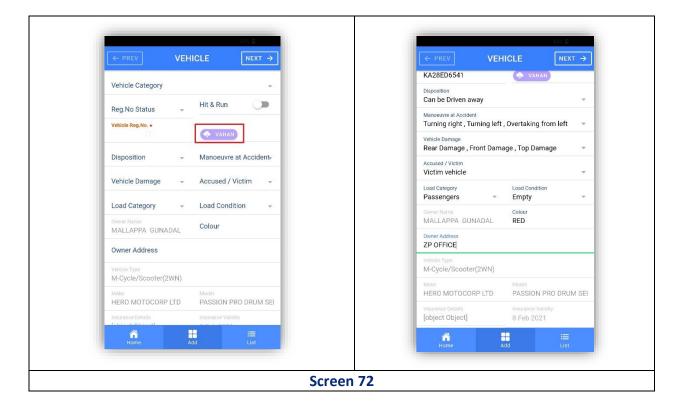
44. Select Load condition click on Load Condition > Dropdown list will be displayed Select the appropriate value from dropdown list by clicking radio button next to the applicable Load Condition click ok (Screen 70).



45. Record Vehicle color click on color Keypad will open key in the color of the Vehicle (Screen 71).



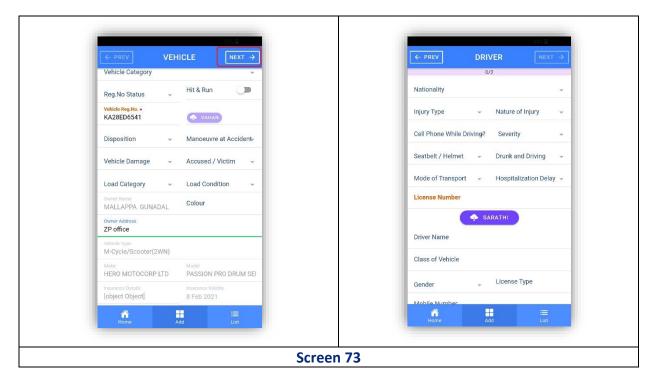
46. Record Vehicle Registration Number click on Light condition keypad will open key in the Vehicle Registration Number click on Vahan Relevant data from Vahan Service of Transport Department will be fetched and will be shown (Screen 72).



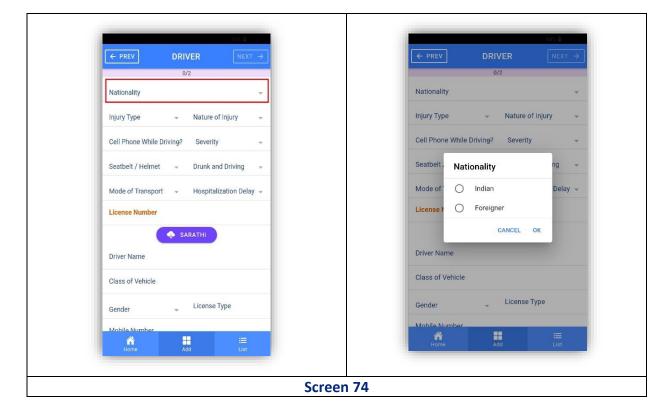


3.1.3.3 Driver

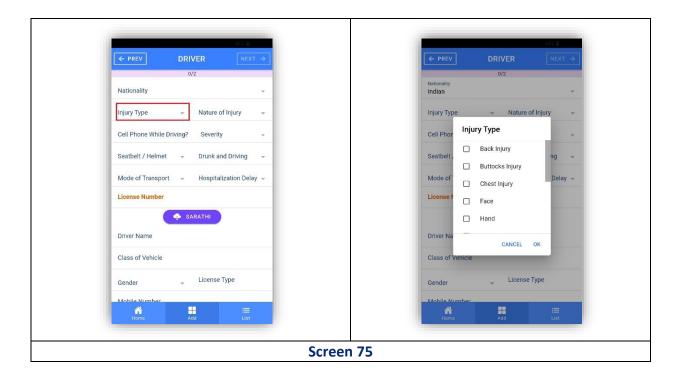
47. Opening Driver Page in Vehicle page after completion of data entry click on next respective vehicle driver page will open (Screen 73).



48. Select Nationality of Driver - Click on Nationality Dropdown list will be displayed select the appropriate value from dropdown list by clicking radio button next to the applicable Nationality Indian / Foreigner Click Ok (Screen 74).



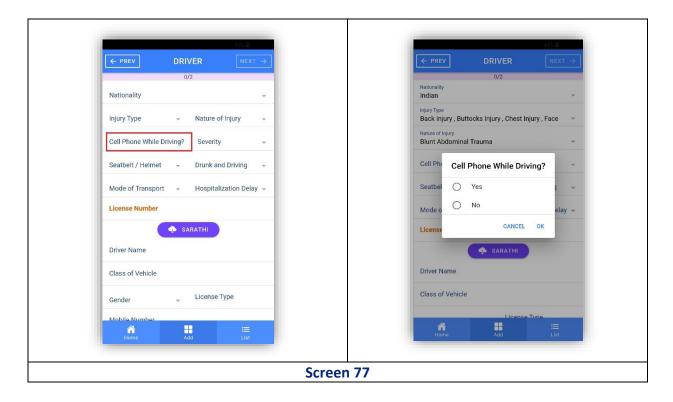
49. Select **Injury Type** of Driver click on Injury Type dropdown list will be displayed Select the appropriate value from dropdown list by clicking radio button next to theapplicable Injury Type click ok (Screen 75).



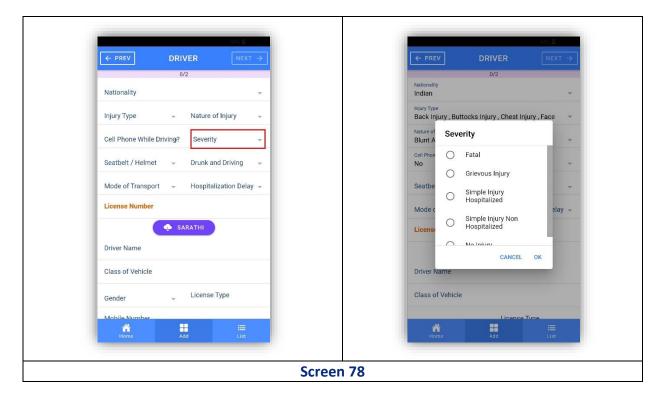
50. Select **Nature of Injury** of Driver Click on Nature of Injury dropdown list will be displayed select the appropriate value from dropdown list by clicking radio button next to the applicable Nature of Injury click ok (Screen 76).



51. Record information of Cell phone use while driving click on Cell Phone While Driving Dropdown list will be displayed showing Yes / No Select the appropriate value from dropdown list by clicking radio button next to the applicable Cell Phone usewhile driving Yes / No click ok (Screen 77).

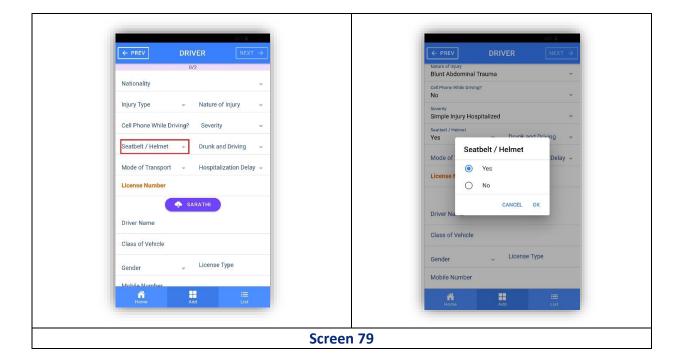


52. Select Severity Click on Severity Dropdown list will be displayed Select the appropriate value from dropdown list by clicking radio button next to the applicable Severity click ok (Screen 78).



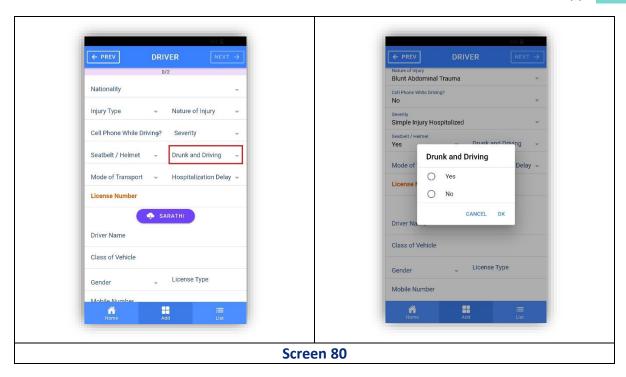
Note: Based on Number of Vehicle & Driver entered during registration of accident in the iRAD Application, system will create option to record details of individual vehicle & respective driver in these pages.

53. Record information on use of Seatbelt / Helmet - Click on Seatbelt / Helmet dropdown list will be displayed showing Yes or No Select the appropriate value fromdropdown list by clicking radio button next to the applicable option Yes or No click ok (Screen 79).

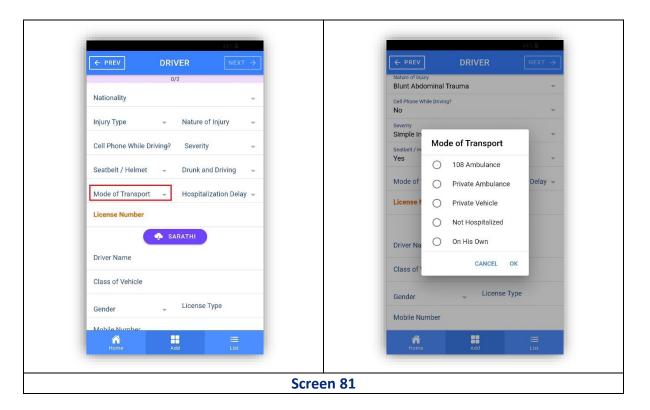


54. Record information on use of Alcohol while driving click on Drunk and Driving Dropdown list will be displayed Select the appropriate value from dropdown list by clicking radio button next to the applicable Drunk and Driving information Yes / No Click Ok (Screen 80).



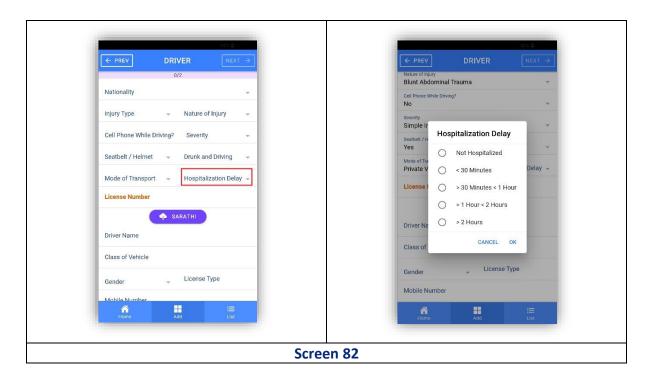


55. Select Mode of Transport to Hospital click on Mode of Transport dropdown list will be displayed select the appropriate value from dropdown list by clicking radio button next to the applicable Mode of Transport click Ok (Screen 81).

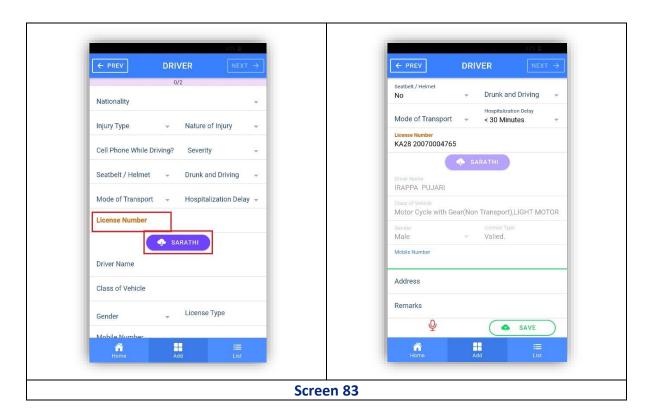




56. Record information on time taken for Hospitalization - Click on Hospitalization Delay dropdown list will be displayed select the appropriate value from dropdown list by clicking radio button next to the applicable Hospitalization Delay click ok (Screen 82).

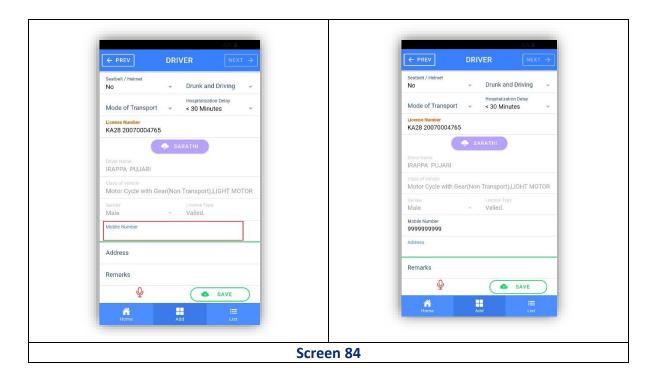


57. Record Driving License Number - Click on License Number Keypad will open Key in the License Number Click on "Sarathi" Button this will fetch data from Sarathi Service of Transport Department & will be shown (Screen 83).

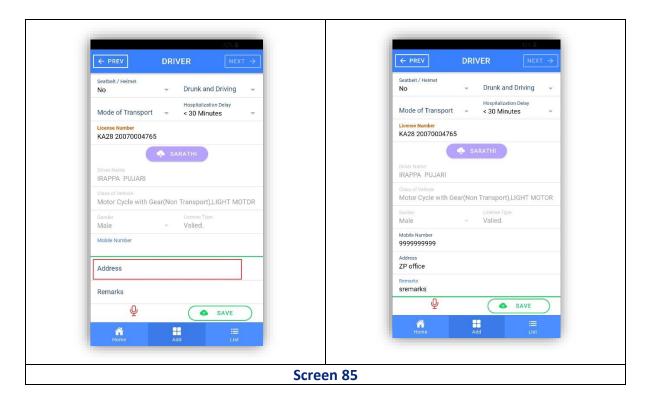




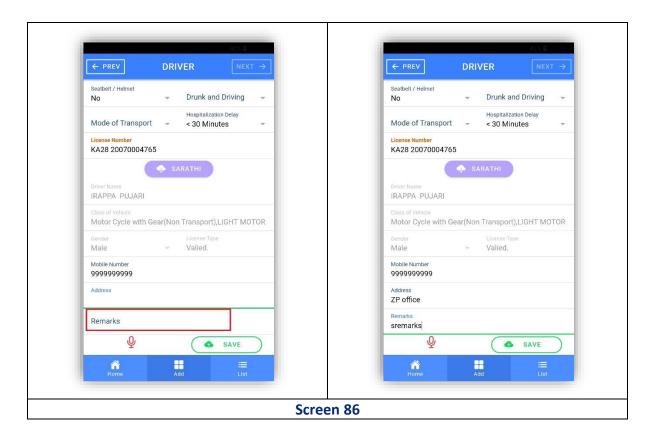
58. Record Mobile Number - Once License Type is recorded in iRAD Sarathi Service is clicked Registered Mobile Number is automatically fetched from Sarathi Service (Screen 84).



59. Record Address - Click on Address Keypad will open key in the Address (Screen 85).



60. Record Remarks - Click on Remarks Keypad will open Key in the Remarks (Screen 86).



61. Save information of Vehicle & Driver - Click on Save button Vehicle & Driver Save Successfully Message will display click on Ok (Screen 87).





3.1.3.4 Passenger

62. Opening Passenger Page – In accident entry page Click on Passenger Tab > Passenger page will open (Screen 88).



63. Select Vehicle by which the Passenger was traveling during accident click on Vehicle Dropdown list will be displayed showing list of Vehicle Registration Number associated with the accident Select the appropriate value from dropdown list by clicking radio button next to the applicable Vehicle Number click ok (Screen 89).





64. Record Name of the Passenger click on Name Keypad will open Key in the Passenger Name (Screen 90).



65. Record Gender of the Passenger - Click on Gender Dropdown list will be displayed showing options Select the appropriate value from dropdown list by clicking radio button next to the applicable gender information of passenger click ok (Screen 91).



66. Record Occupation of the Passenger Click on Occupation Dropdown list will be displayed showing options > Select the appropriate value from dropdown list by clicking radio button next to the applicable Occupation information of passenger click ok (Screen 92).



67. Record Action of the Severity click on severity of action dropdown list will be displayed showing options select the appropriate value from dropdown list by clicking radio button next to the applicable information about Severity Action Click Ok (Screen 93).





68. Record Nature of Injury of the Passenger Click on Nature of Injury Dropdown list will be displayed showing options select the appropriate value from dropdown list by clicking radio button next to the applicable information about Nature of Injury Click Ok (Screen 94).



69. Mode of Transport of the Passenger to Hospital Click on Mode of Transport Dropdown list will be displayed showing options > Select the appropriate value from dropdown list by clicking radio button next to the applicable information of Mode of Transport Click Ok (Screen 95).





70. Hospitalization Delay of the Passenger click on Hospitalization Delay Dropdown list will be displayed showing options select the appropriate value from dropdown list by clicking radio button next to the applicable information about Hospitalization Delay Click Ok (Screen 96).



71. Nature of Injury of the Passenger Click on Nature of Injury Dropdown list will be displayed showing options select the appropriate value from dropdown list by clicking radio button next to the applicable information about Nature of Injury Click Ok (Screen 97).





72. Position of the Passenger Click on Passenger Position Dropdown list will be displayed showing options select the appropriate value from dropdown list by clicking radio button next to the applicable information about Passenger Position Click Ok (Screen 98).



73. Record information on use of Seatbelt / Helmet - Click on Seatbelt / Helmet Dropdown list will be displayed showing Yes or No Select the appropriate value from dropdown list by clicking radio button next to the applicable option Yes / No > Click Ok (Screen 99).





74. Action of the Passenger - Click on Passenger Action Dropdown list will be displayed showing options select the appropriate value from dropdown list by clicking radio button next to the applicable information about Passenger Action Click Ok (Screen 100).



75. Age of the Passenger Click on age Keypad will open key in the passenger age (Screen 101).





76. Mobile Number of the Passenger – Click on mobile keypad will open Key in the Passenger Mobile Number (Screen 102).



77. Nationality of the Passenger Click on Nationality Dropdown list will be displayed Select the appropriate value from dropdown list by clicking radio button next to the applicable Nationality Indian / Foreigner Click Ok (Screen 103).





78. Address of the Passenger - Click on Address Keypad will open Keypad in the passenger Address (Screen 104).

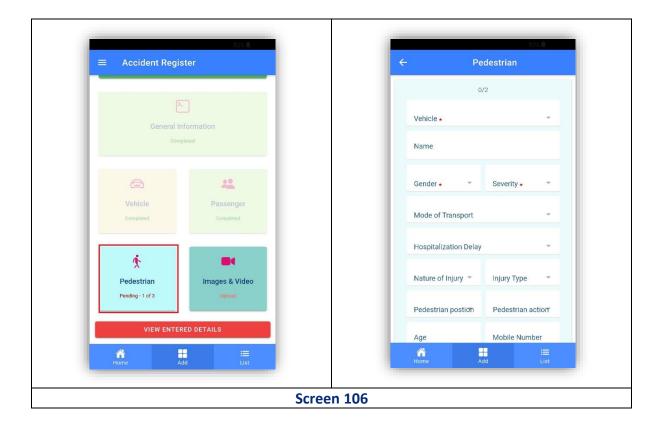


79. Information of the Passenger Click on Save button "Passenger Details saved successfully" message will Display Click on Ok (Screen 105).



3.1.3.5 Pedestrian

80. Opening Pedestrian Page – In accident entry page > Click on Pedestrian Tab > Pedestrian page will open (Screen 106).



81. Select Vehicle that has affect the Pedestrian - Click on Vehicle Dropdown list will be displayed showing list of Vehicle Registration Number associated with the accident (Vehicle Registration Numbers already recorded in iRAD System under Vehicle & Driver tab in Vehicle page) Select the appropriate value from dropdown list by clicking radio button next to the applicable Vehicle Number > Click Ok (Screen 107).





82. Record Name of the Pedestrian Click on Name Keypad will open Key in the Pedestrian Name (Screen 108).





83. Gender of the Pedestrian - Click on Gender Dropdown list will be displayed showing options select the appropriate value from dropdown list by clicking radio button next to the applicable gender information of affected Pedestrian Click Ok (Screen 109).

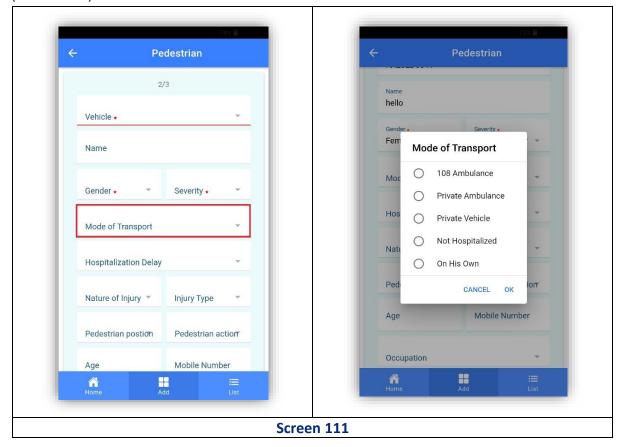


84. Severity of Injury of the Pedestrian - Click on Severity Dropdown list will be displayed showing options select the appropriate value from dropdown list by clicking radio button next to the applicable information on Severity of Injury of the Pedestrian Click Ok (Screen 110).





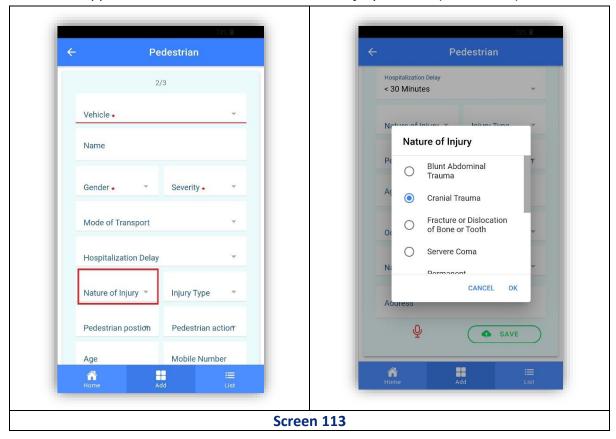
85. Mode of Transport of the Pedestrian to Hospital Click on Mode of Transport Dropdown list will be displayed showing options Select the appropriate value from dropdown list by clicking radio button next to the applicable information of Mode of Transport Click Ok (Screen 111).



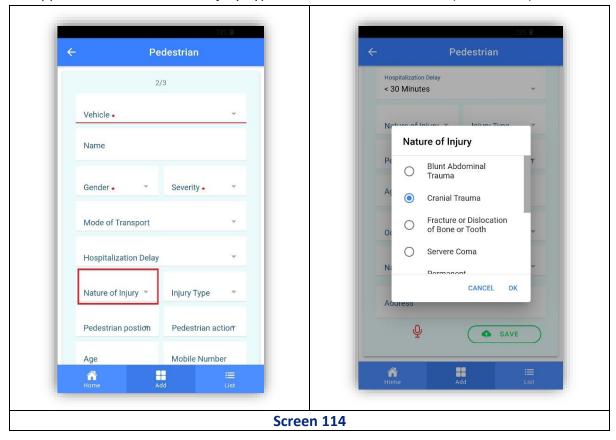
86. Hospitalization Delay of the Pedestrian - Click on Hospitalization Delay Dropdown list will be displayed showing options select the appropriate value from dropdown list by clicking radio button next to the applicable information about Hospitalization Delay Click Ok (Screen 112).



87. Nature of Injury of the Pedestrian Click on Nature of Injury Dropdown list will be displayed showing options select the appropriate value from dropdown list by clicking radio button next to the applicable information about Nature of Injury Click Ok (Screen 113).



88. Injury Type of the Pedestrian - Click on Injury Type Dropdown list will be displayed showing options Select the appropriate value from dropdown list by clicking radio button next to the applicable information on Injury Type of the Pedestrian Click Ok (Screen 114).



89. Injury Type of the Pedestrian - Click on Injury Type Dropdown list will be displayed showing options Select the appropriate value from dropdown list by clicking radio button next to the applicable information on Injury Type of the Pedestrian Click Ok (Screen 115).





90. Action of the Pedestrian - Click on Pedestrian Action Dropdown list will be displayed showing options > Select the appropriate value from dropdown list by clicking radio button next to the applicable information about Pedestrian Action Click Ok (Screen 116).





91. Record Age of the Pedestrian – Click on Name > Keypad will open Key in the Pedestrian's Age (Screen 117).

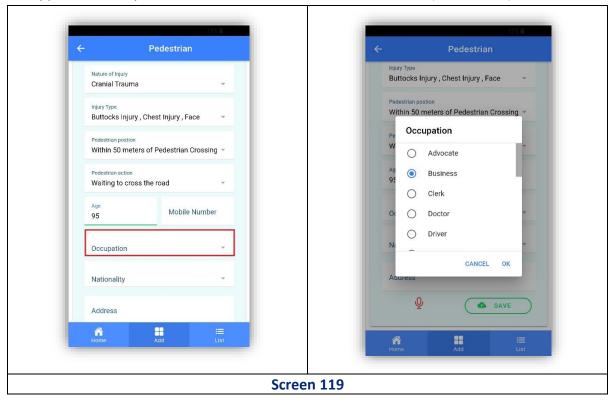


92. Mobile Number of the Pedestrian Click on Name Keypad will open Key in the Pedestrian's Mobile Number (Screen 118).





93. Occupation of the Pedestrian Click on Occupation Dropdown list will be displayed showing options select the appropriate value from dropdown list by clicking radio button next to the applicable Occupation information of the Pedestrian Click Ok (Screen 119).



94. Nationality of the Pedestrian - Click on Nationality Dropdown list will be displayed > Select the appropriate value from dropdown list by clicking radio button next to the applicable Nationality Indian / Foreigner click ok (Screen 120).



- **95.** Address of the Pedestrian Click on Address Keypad will open Key in the Address of the Pedestrian (Screen 121).
- **96. Information of the Pedestrian** Click on Save button "Pedestrian Details saved successfully" message will Display Click on Ok (Screen 121).





POLICE DEPARTMENT (Admin)



Chapter-4

4.1 Using iRAD by Police Department (User Role: Station Admin): Review Recorded Accident

4.1.1 Accident Dashboard

1. Accident Dashboard - After login in iRAD app click on "Click to Continue" Dashboard will open with following 8 Tabs (Screen 122). All the accident details collected by data collector (of police) are segregated into these 8 tabs based on nature of accident.





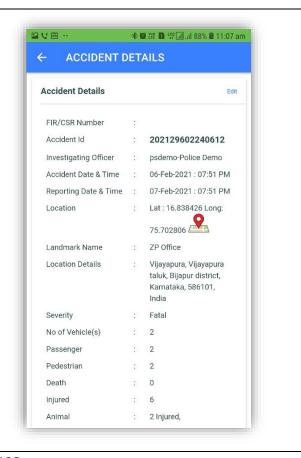
4.1.2 View Accident List

- 2. Accident List Click on "List" at the bottom right corner of Dashboard page Accident List will open. The accident Lists are categorized into 3 groups with count of accident under every group is displayed (Screen 123)
- a. Pending
- b. Completed
- c. To be deleted.

4.1.3 View Accident Details

 Accident Details - Statin admin could view individual accident details by clicking "View" button against individual accident Id. This user could also delete accident from iRAD system (Figure 123).





Screen 123

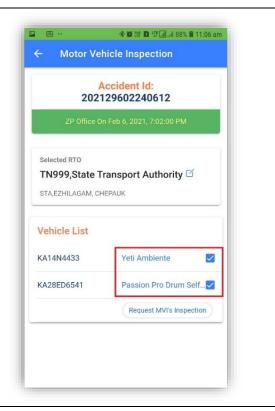


4.1.4 Workflow of Police Station Admin

4. Workflow of Police Station Admin -

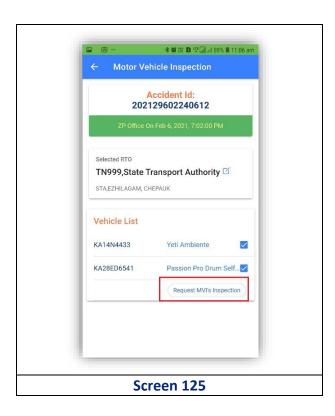
- a. Accidents recorded by field offices of Police (data collector) once save the data in iRAD App, it goes to Police Station Admin.
- b. Based on requirements (especially for FIR) Police Station Admin could select vehicle for which inspection is required against individual Accident Id.
- c. Station Admin send inspection request to Motor Vehicle Inspector (MVI) for the selected vehicle (Screen 124)
- d. Application ask for user confirmation for MV Inspection request for selected vehicle before sending to MVI of Transport Department (Screen 125).



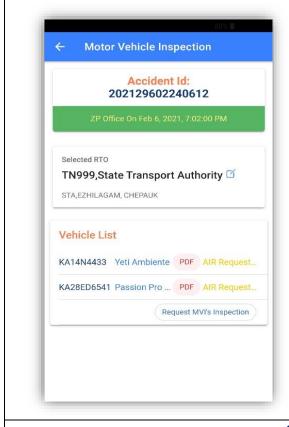


Screen 124





e. Once submitted by MVI, Police Station Admin will be able to see the inspection report of Motor Vehicle Inspector under Accident List Completed MVI Completed Download .PDF (Figure 126).





Screen 126

TRANSPORT DEPARTMENT



Chapter-5

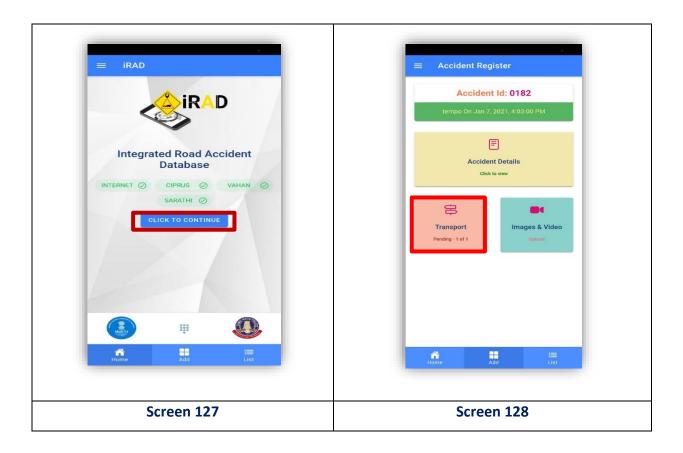
5. Using iRAD by Transport Department (User Role: Motor Vehicle Inspector): Inspection of Vehicle met with Accident

5.1 Motor Vehicle Inspection

- Station Admin send inspection request to Motor Vehicle Inspector (MVI) for the selected vehicle
- 2. Motor Vehicle Inspector receive the inspection request under Accident list select Transport enter name and password and captcha and press log in button (Screen 127).

5.2 Dashboard

- a. Click to continue
- b. Click on Add Accident entry page will open.





5.2.1 Transport

In Accident entry page, Motor Vehicle inspection data is recorded under Transport Tab

1. Select Vehicle

Select vehicle registration number from dropdown list, under an accident Id for which inspection request is raised by Police Station Admin (Screen 128)

2. Select Registration Number Type

Select vehicle registration number type from dropdown list (Screen (129)



3. Select Registration Validity

Select vehicle registration validity from date picker

4. Registration Number based auto population of data

Once vehicle registration number is selected, from VAHAN Service relevant data gets auto populated in iRAD App.

1. Class of Vehicle

a. MVI needs to Key in the class of vehicle (screen 130)

2. Owner Name



a. MVI needs to Key in the owner name (update)

3. Vehicle Description

a. Select vehicle description from dropdown list (Screen 131).

4. Color of Vehicle

a. MVI needs to Key in the Colored Vehicle.

5. RC Validity of Vehicle

Select RC validity from date picker



6. ULW in KG

MVI needs to Key in the ULW in KG (Screen 132).

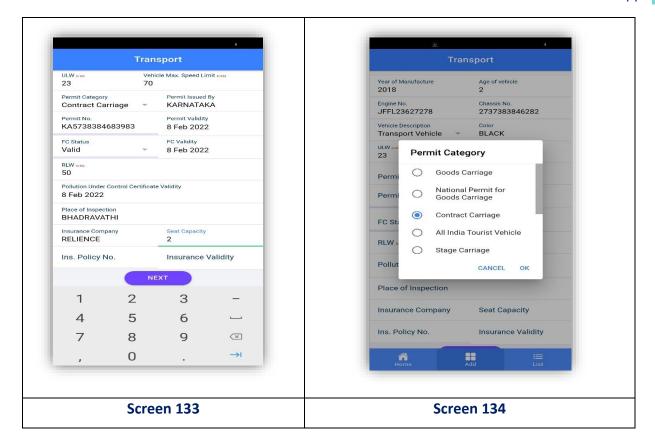
7. Max Speed Limit of Vehicle

MVI needs to Key in the Max Speed Limit of Vehicle (Screen 133).

8. Permit Category

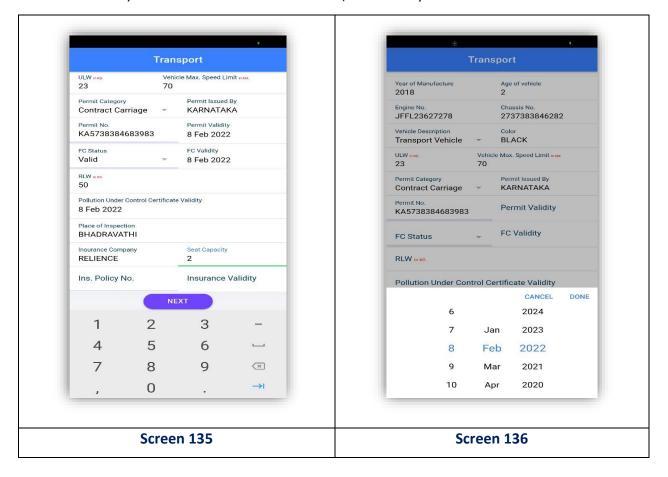
Select the permit category in the given option (Screen 134).





9. Permit Validity

Select the validity date of vehicle as shown in the (Screen 136).





10. Fc Status

Select fc status as shown in the below (Screen 137).

11. Fc Validity

Select the Fc validity date as shown in the (Screen 138).



12. RLW IN KGS

MVI needs the weight of RLW enter the weight of vehicle (Screen 139).

13. Pollution under control Certificate validity

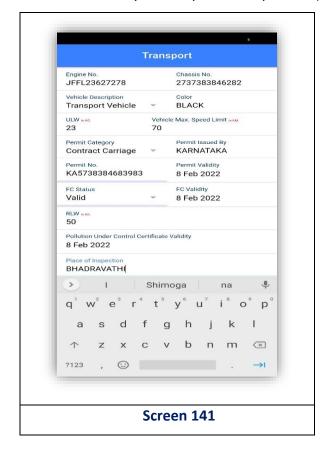
MVI needs the date of pollution under control certificate (Screen 140).





14. Place of Inspection

MVI needs to Key in the Space of Inspection (Screen 141).



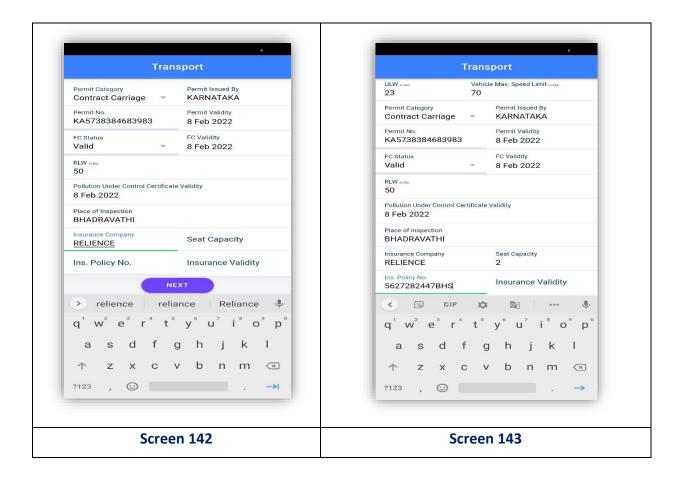


14. Insurance Company

MVI needs the name of the insurance company (Screen 142).

15. Insurance policy number

MVI needs the key value of insurance policy number (Screen 143).



16. Seat Capacity

MVI needs to Key in the Seat capacity (Screen 144)

17. Insurance Validity

MVI need the validity of insurance click next (Screen 145).





18. Length of Vehicle

MVI needs to Key in the Length of Vehicle (Screen 146).

19. Width of Vehicle

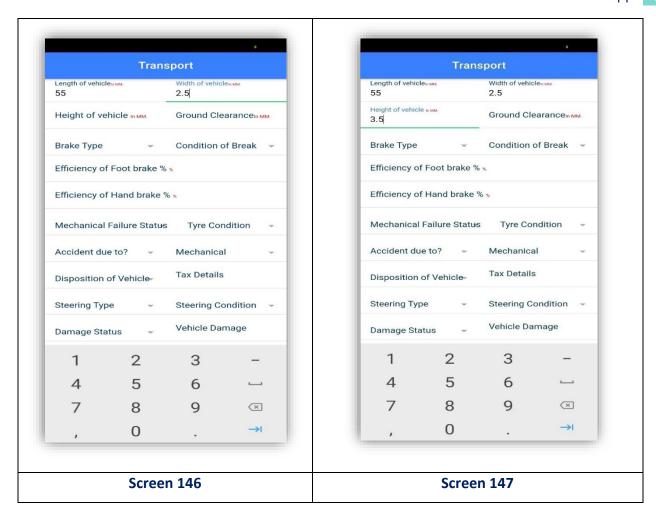
MVI needs to Key in the Width of Vehicle (Screen 147).

20. Height of Vehicle

MVI needs to Key in the Height of Vehicle (Screen 148).

21. Ground Clearance

MVI needs to Key in the Ground Clearance (Screen 149).



22. Select Break Type

Select Break Type from dropdown list (Screen 150).

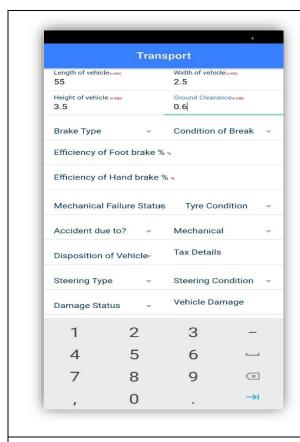
23. Select Condition of Brake

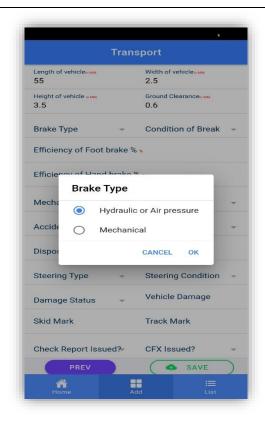
Select Condition of Break from dropdown list (Screen 151)

24. Efficiency of Foot brake %

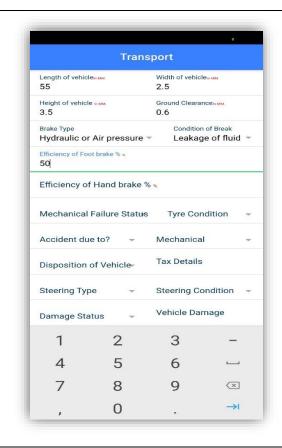
MVI needs to Key in the Efficiency of Foot brake %(Screen 152).



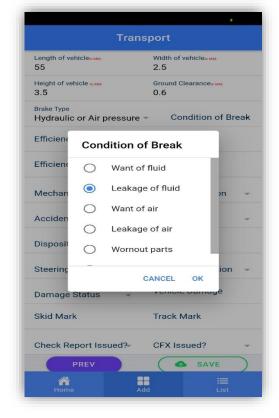




Screen 148 Screen 149



Screen 150



Screen 151

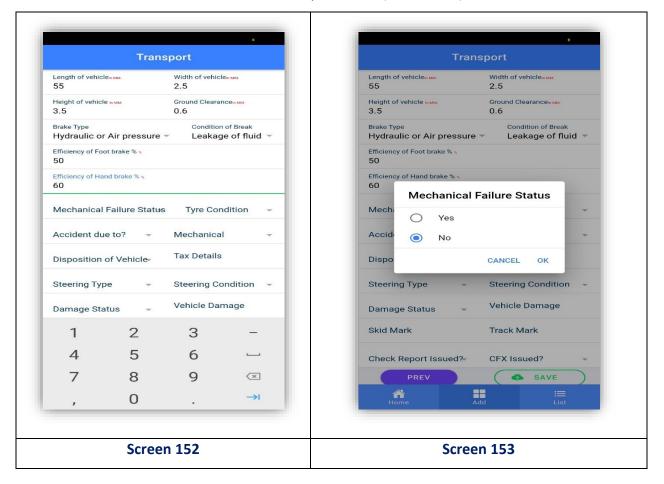


25. Efficiency of Hand brake %

MVI needs to Key in the Efficiency of Foot brake %(Screen 152).

26. Select Mechanical Failure Status

Select Mechanical Failure Status from dropdown list (Screen 153).



27. Select Tyre Condition

Select Tyre Condition from dropdown list (Screen 154).

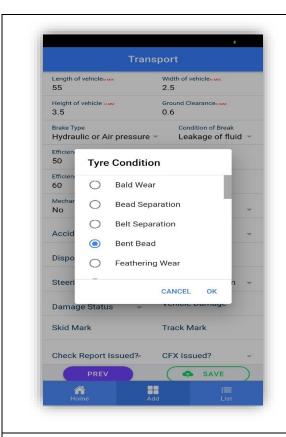
28. Select Accident Due to

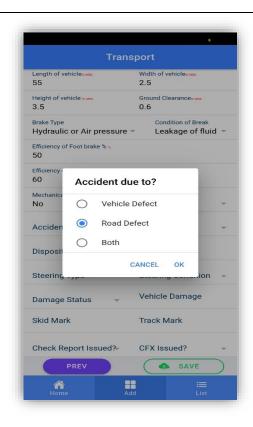
Select "Accident Due to from dropdown list (Screen 155).

29. Select Mechanical

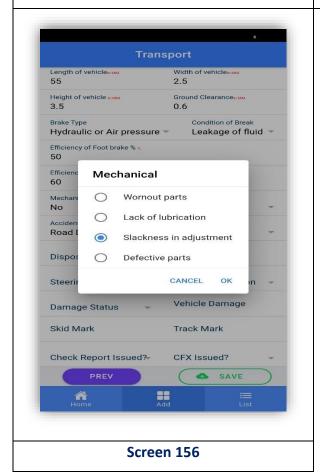
Select Mechanical from dropdown list (Screen 156).







Screen 154 Screen 155



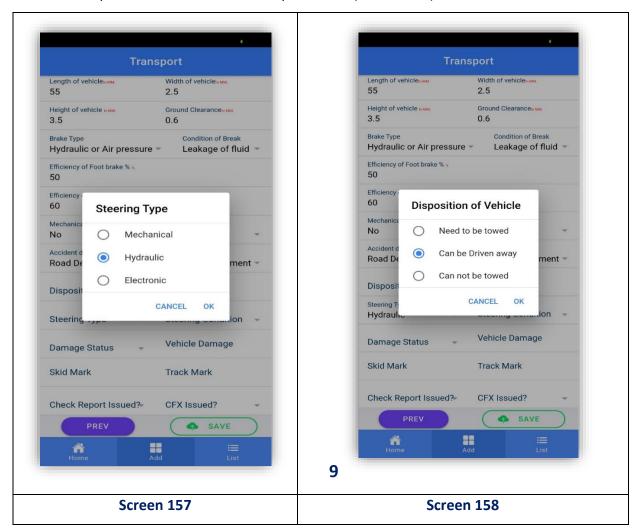


30. Select Steering Type

Select Steering Type of Vehicle from dropdown list (Screen 157).

31. Select Disposition of Vehicle

Select Disposition of Vehicle from dropdown list (Screen 158).



32. Tax Details

MVI needs to Key in the Tax Details (Screen 159).

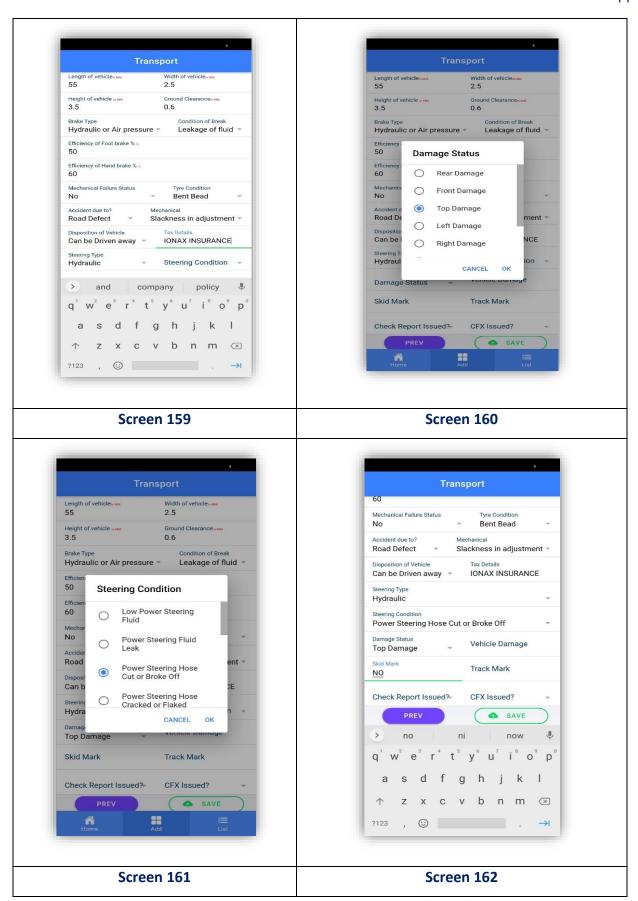
33. Damage Details

Select the damage details (Screen 160).

34. Select Steering Condition

Select Steering Condition of Vehicle from dropdown list (Screen 161).







35. Skid Mark

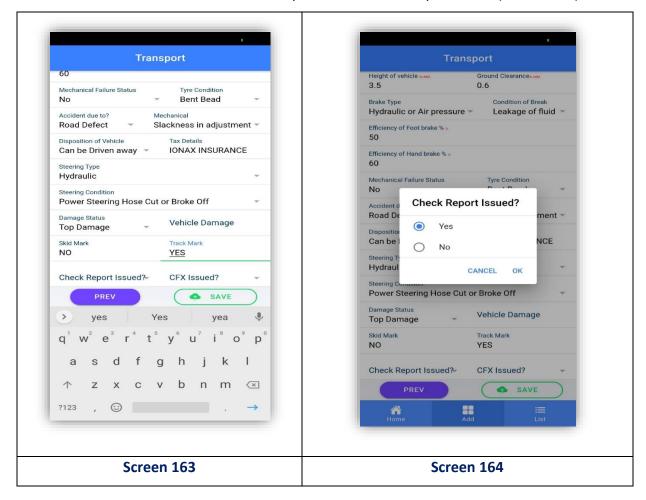
MVI needs to Key in the Skid Mark (Screen 162).

36. Track Mark

MVI needs to Key in the Track Mark (Screen163).

37. Check Report Issued

MVI needs to select status of Check Report Issued from dropdown list (Screen 164).



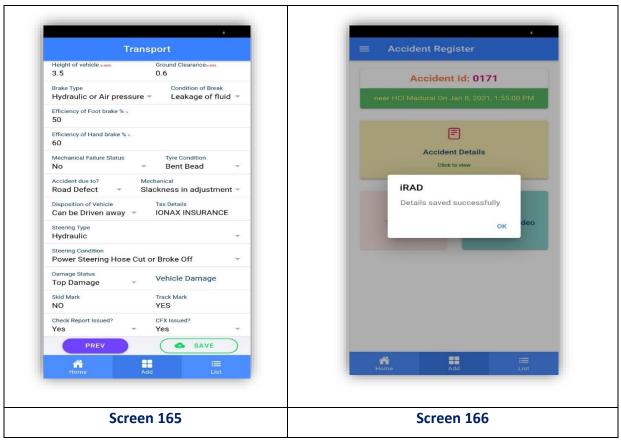
38. Select Damage Status of CFX Issued from dropdown list (Screen 165).

Save Motor Vehicle Inspection Details

After recording all required information in iRAD Click Save button "Details saved successfully" message will appear in Accident List (Screen 166).

- a) Click on save button (Screen 166)
- b) Follow the same procedure to add transport





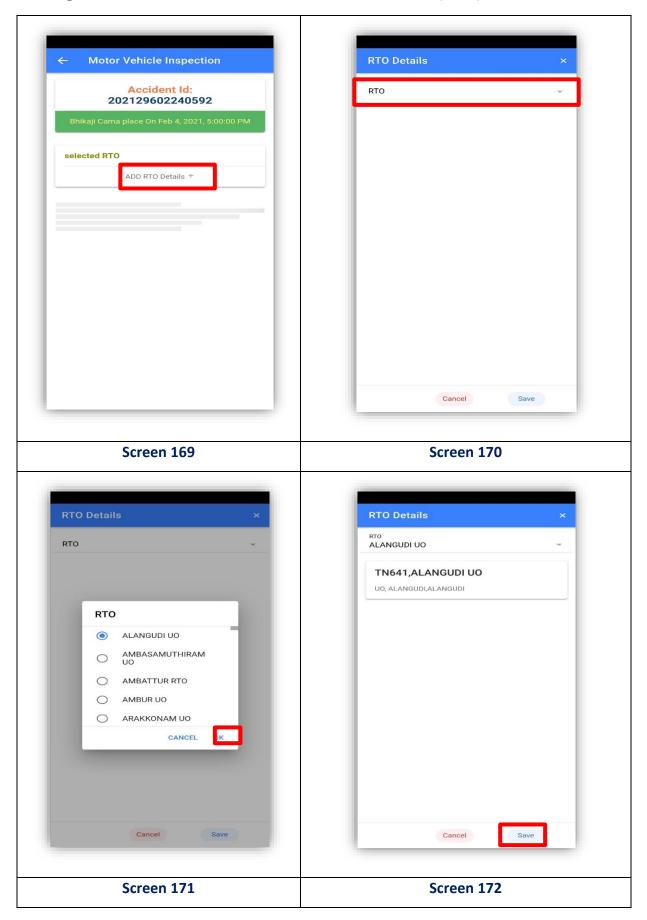
Pending count will be reduced

The Accident Id for which MVI is done will be added in "Completed" list of Accident (Screen 167,169).





Adding TRANSPORT AND ROAD DETAILS Screen (169)





HIGHWAY DEPARTMENT



Chapter-6

6.1 Using iRAD by Highways Department (User Role: Highways Engineer): Inspection of Accident Site

1. Accident Site Inspection

a) Once the Accident data will be recorded and saved by user of Police Department, it goes to Highways department. The Highways Engineers need to Inspect Accident Site and Collect required data.

2. Viewing Accident details

 a) Highway Engineer Log in Select Accident Id from Accident List for which data is required to be viewed Accident details page opens up showing all data collected for that Accident Id.





3. Inspection of Accident Site

From "Pending "accident list > Select Accident Id for which inspection to be done Click "Add" Accident Entry Page opens up > Click on "Road Details" Tab "Road Details" Page opens up (Screen 174).

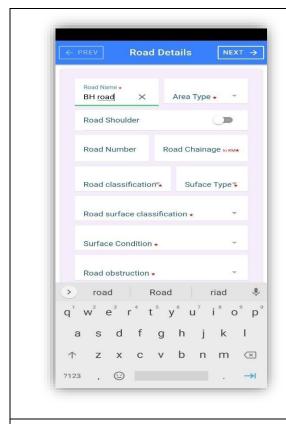


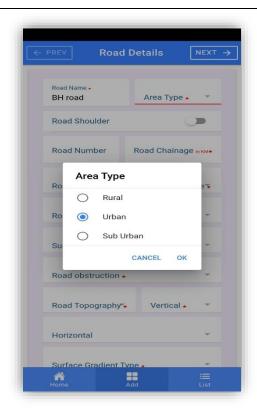
4. Track Mark

MVI needs to Key in the Road Name (Screen 176).

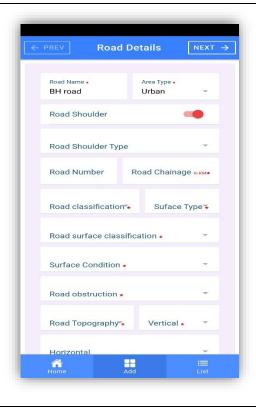
5. Select Area Type

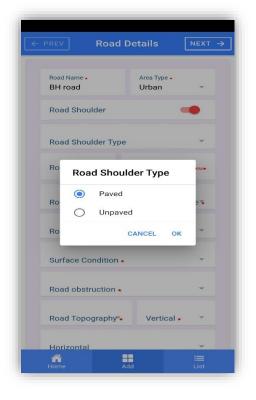
MVI needs to select Area Type from dropdown list (Screen 177).





Screen 177 Screen 178





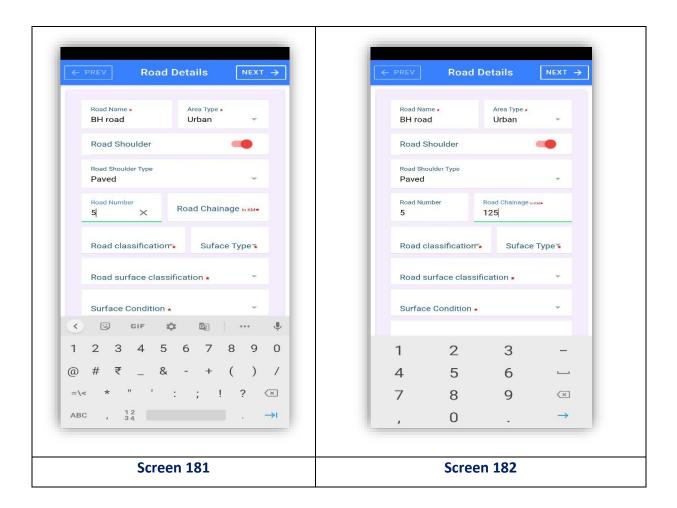
Screen 179 Screen 180

6. Road Number

MVI needs to Key in the Road Number (Screen 178).

7. Road Chain age

In KM-MVI needs to Key in the Road Number (Screen 179).



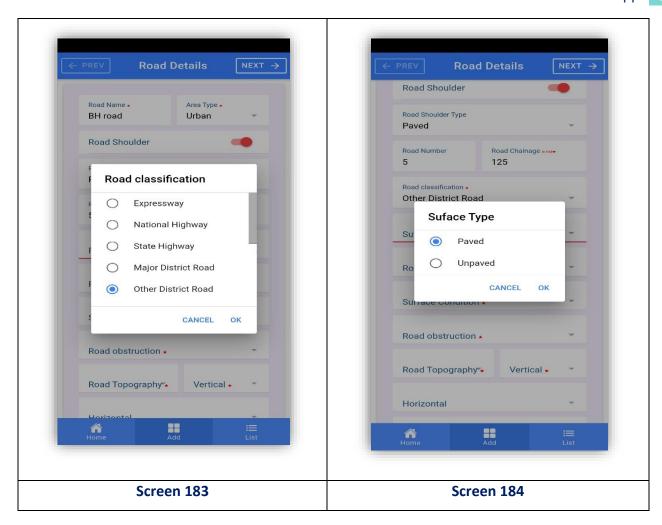
8. Select Road Classification

MVI needs to select Road Classification from the drop down list (Screen 180)

9. Select Road Surface Type

MVI needs to select Road Surface Type from the dropdown list (Screen 181).





10. Select Road Surface Classification

MVI needs to select Road Surface Classification from the dropdown list (Screen 182).

11. Select Surface Type

MVI needs to select Surface Condition from the dropdown list (Screen 183).

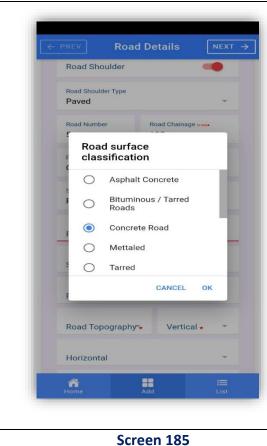
12. Select Road Obstruction

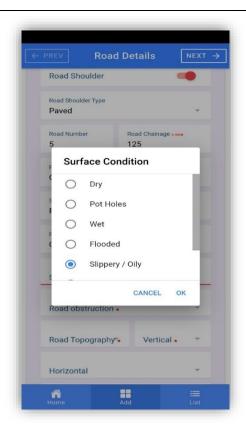
MVI needs to select Road Obstruction from the dropdown list (Screen 184)

13. Select Road Topography

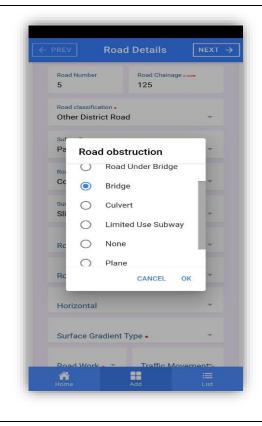
MVI needs to select Road Topography from the dropdown list (Screen 185).

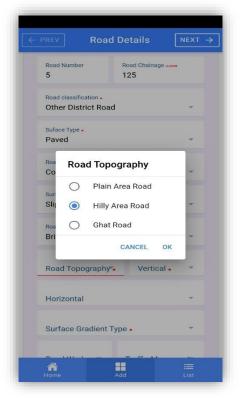












Screen 187

Screen 188

14. Select Vertical/ Horizontal

MVI needs to select Vertical Horizontal (Screen 186).

Condition (Fields names based on selected topography) from the dropdown list (Screen 187)

15. Select Surface Gradient Type

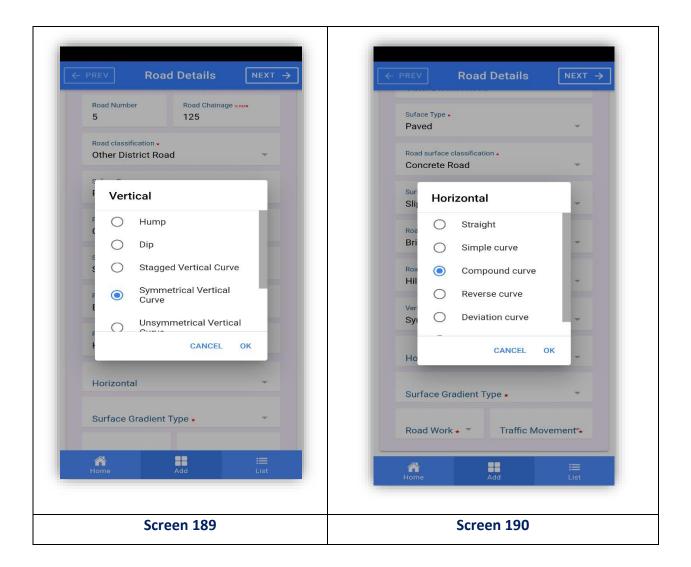
MVI needs to select Surface Gradient Type from the dropdown list

16. Select Road Work

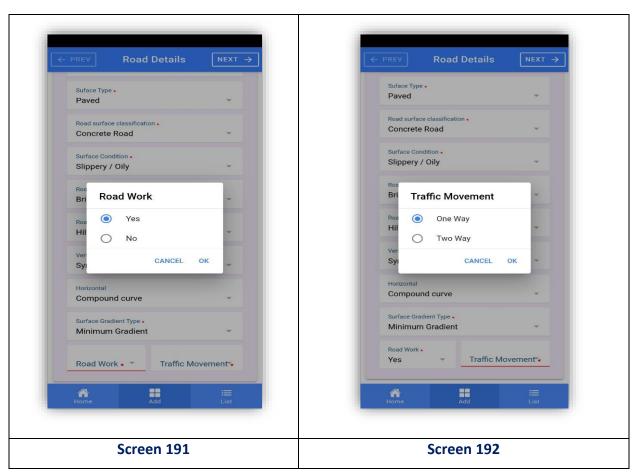
MVI needs to select Road Work from the dropdown list (Screen 188)

17. Select Traffic Movement

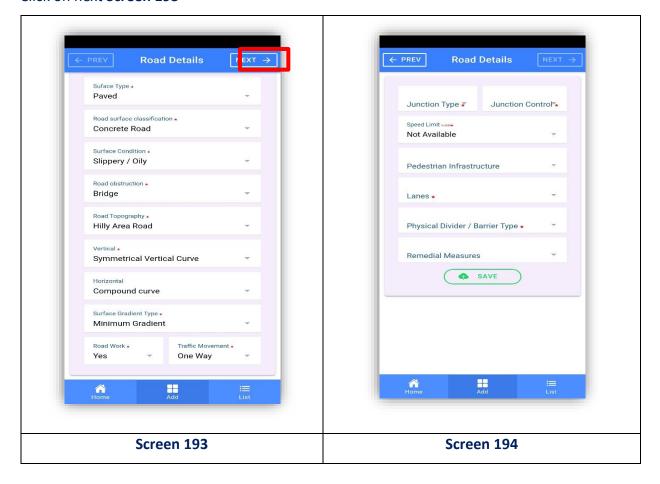
MVI needs to select Traffic Movement type from the drop down list (Screen 189).







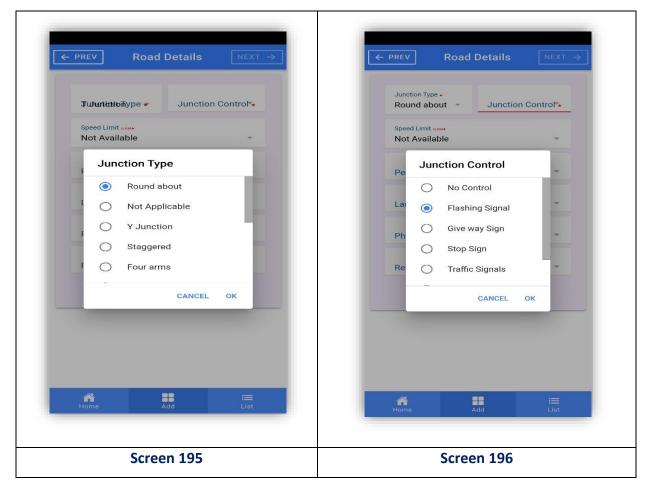
Click on next Screen 193





18. Select Junction Type

MVI needs to select Junction Type from the dropdown list (Screen 195).



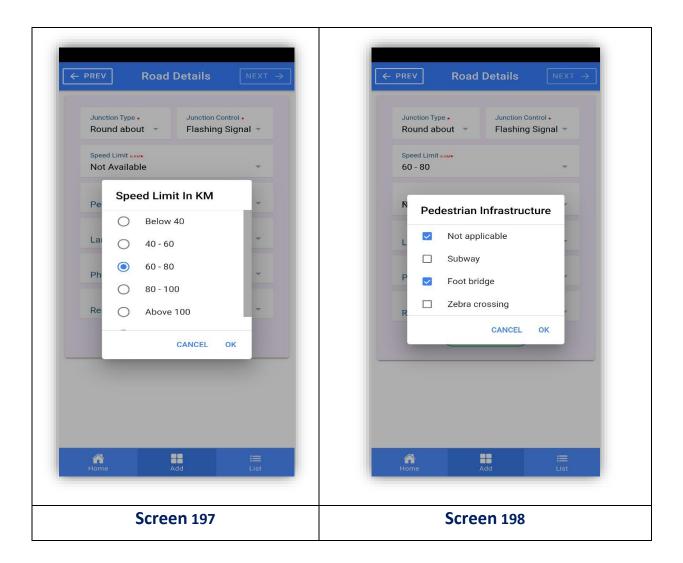
19. Select Junction Control

MVI needs to select Junction Control from the drop down list (Screen 196).

20. Select Speed Limit in KM

MVI needs to select Speed Limit in KM from (Screen 197)

21. The dropdown list (Screen 194).

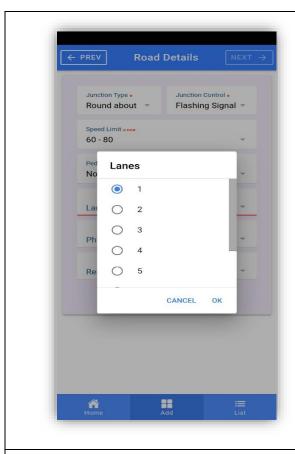


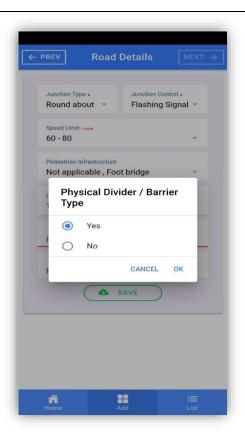
22. Select Pedestrian Infrastructure

MVI needs to select Pedestrian Infrastructure from the dropdown list (Screen 198).

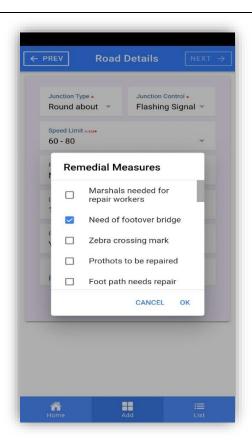
23. Select Lanes

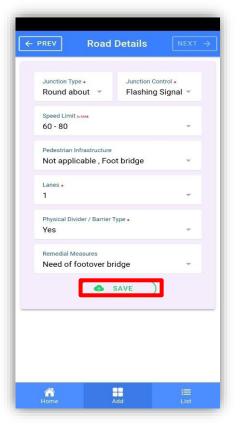
MVI needs to select Lanes from the dropdown list (Screen 199).





Screen 199 Screen 200





Screen 201 Screen 202

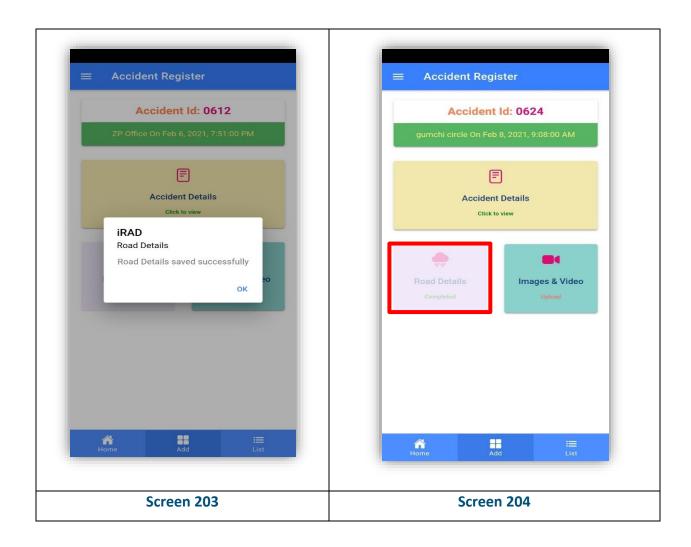


24. Select Physical Divider / Barrier Type

MVI needs to select Physical Divider / Barrier Type from the dropdown list (Screen 200).

25. Select Remedial Measure

MVI needs to select Remedial Measure from the dropdown list (Screen 201).

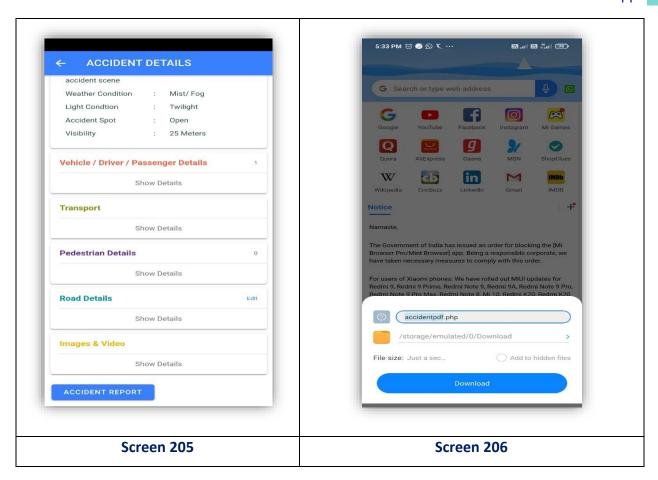


After click ok is shows completed as show in the Screen (203).

Accident View- click on Accident Details- (Screen 204).

The page displays all the documents of the accident which can be downloaded as shown in the below (Screen 205,206).



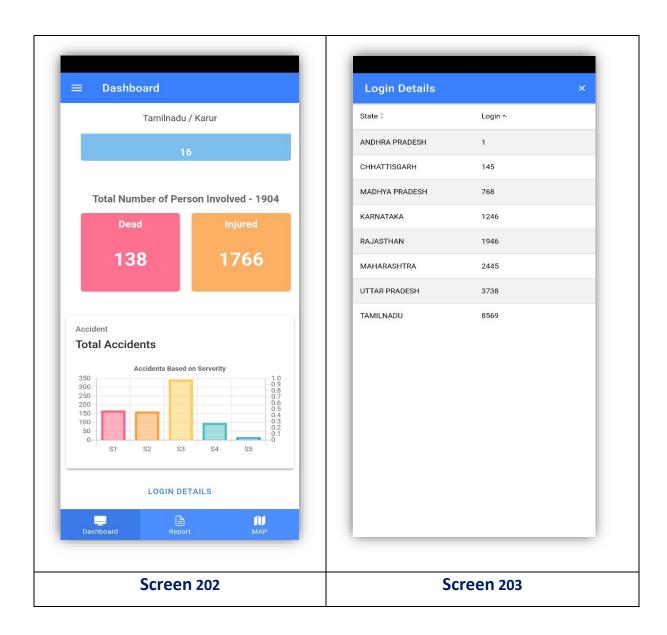


Chapter-7

7.1 Using iRAD by District Admin

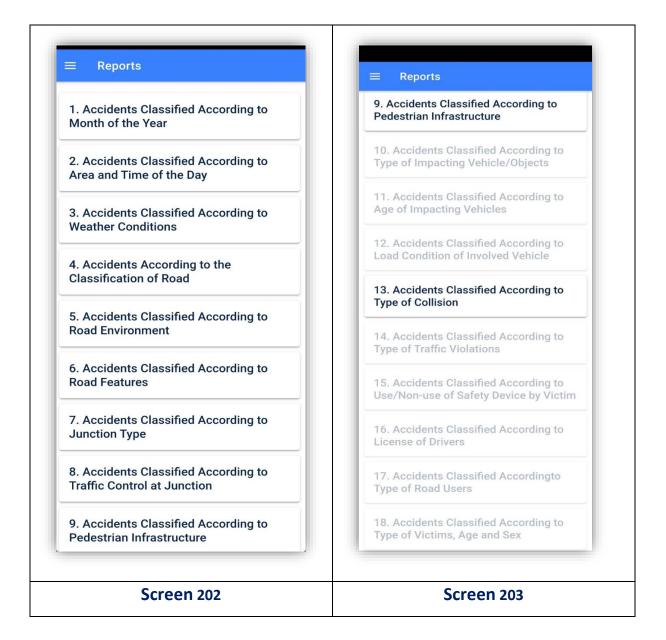
Dashboard

- a) Accident Statistical and Analytical view of specific District
- b) Login Details





c) List of Reports which are generated





d) This map represents accident details throughout India



