



ACCIDENT PREVENTION, IDENTIFICATION AND REPORTING SYSTEM



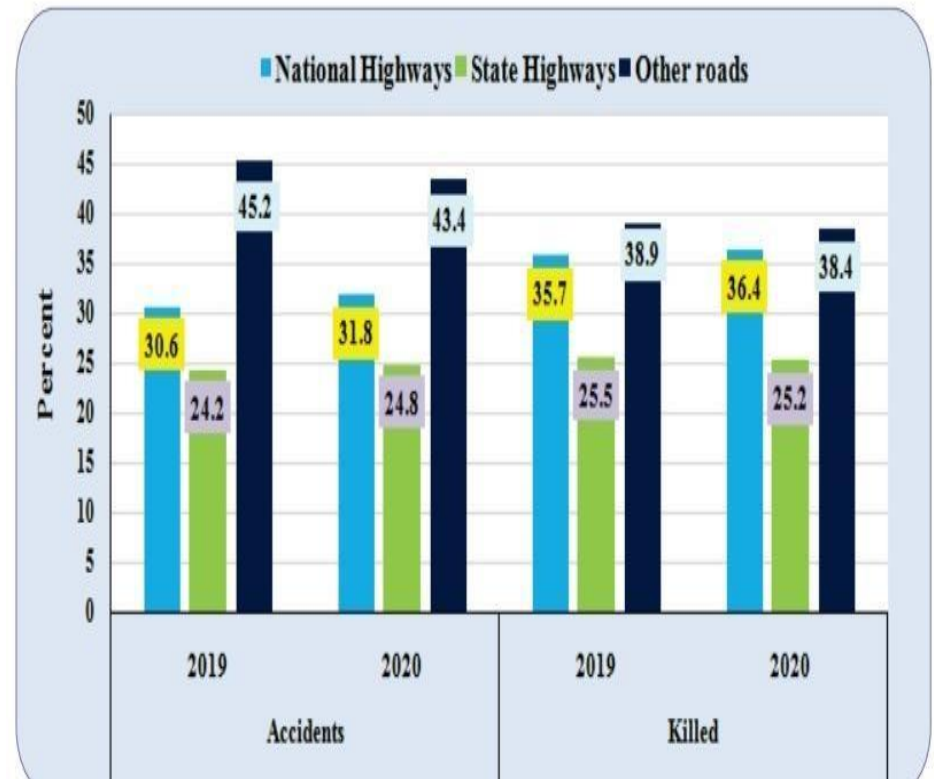
PROBLEM STATEMENT

In the modern world of science and technology. Transportation system is an integral part of living. Automobiles play a vital role in our daily life but like every other thing, with some positives there are negatives too. **Road accidents are the major threat to human lives.** Speed is the key factor responsible for many of the accidents. Therefore, there is a need to control all the accidents.



STATISTICS

According to WHO Road traffic injuries are the leading cause of death for children and young adults aged 5-29 years. Approximately 1.3 million people die each year as a result of road traffic crashes. These stats prove the problem statement's impact on the society.



PROBLEMS IN THE PREVIOUS METHODS

One of the methods for accident detection was, manual accident detection, which relied on the passengers passing by the accident spot who notify the concerned emergency authorities for any safety measures to be taken but this method was having loophole in it because its efficiency was not reliable because someone have to witness the accident also this method incorporates delays and inaccuracies due to witness's expression problem.



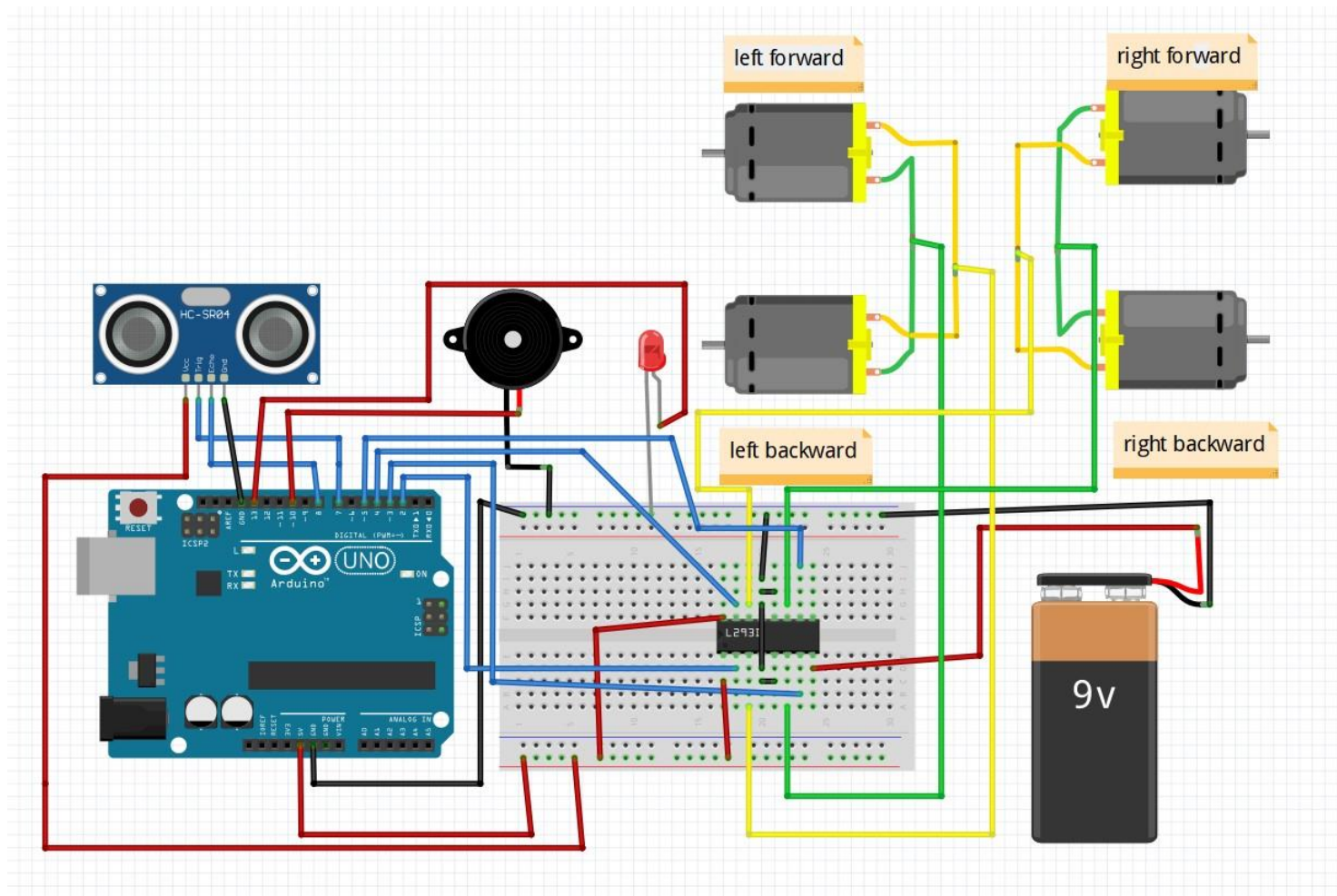
IDEA PROPOSED

This project proposes a quite efficient and optimal way to control accidents.

- First the project deals with prevention of accident by sending alarm for taking care of a nearby vehicle to prevent from front collision.
- If due to some reasons collision occurs then the next step is detection, for that purpose smart phone based accident detection and notification system which will track the accident with the help of deployed impact sensors, will process the data through micro-controller unit and then with a Smartphone app GPS, GSM it will send a notification to the nearest emergency services and to the victim's family.
- Along with this our system has an additional feature of accident reporting. People can report the accident information and details to police officials, this feature will be very useful specifically for hit and run accidents.



ACCIDENT PREVENTION (SCHEMATICS)



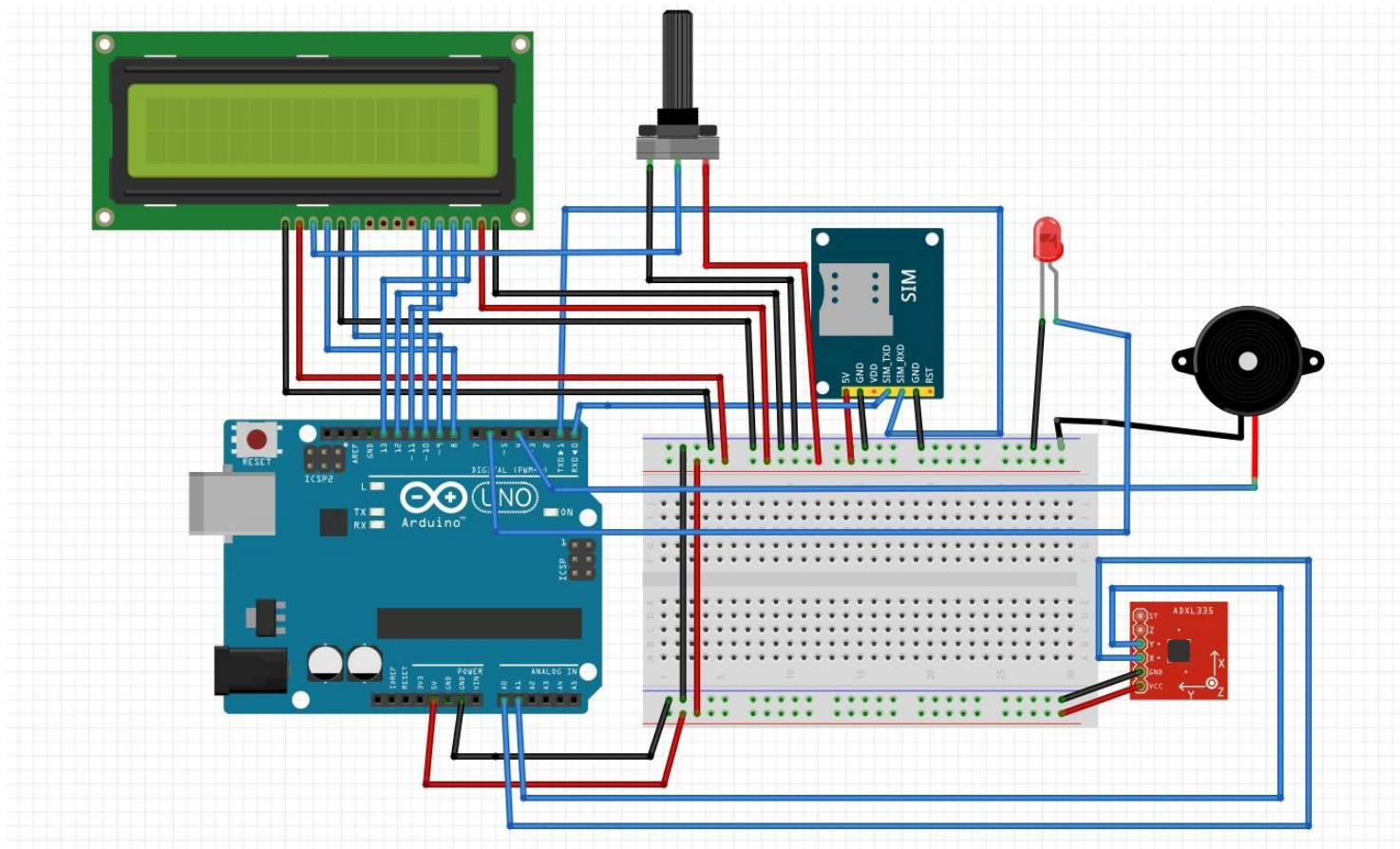
ACCIDENT PREVENTION

In above schematics we explained the working of Accident prevention. For that we have used-:

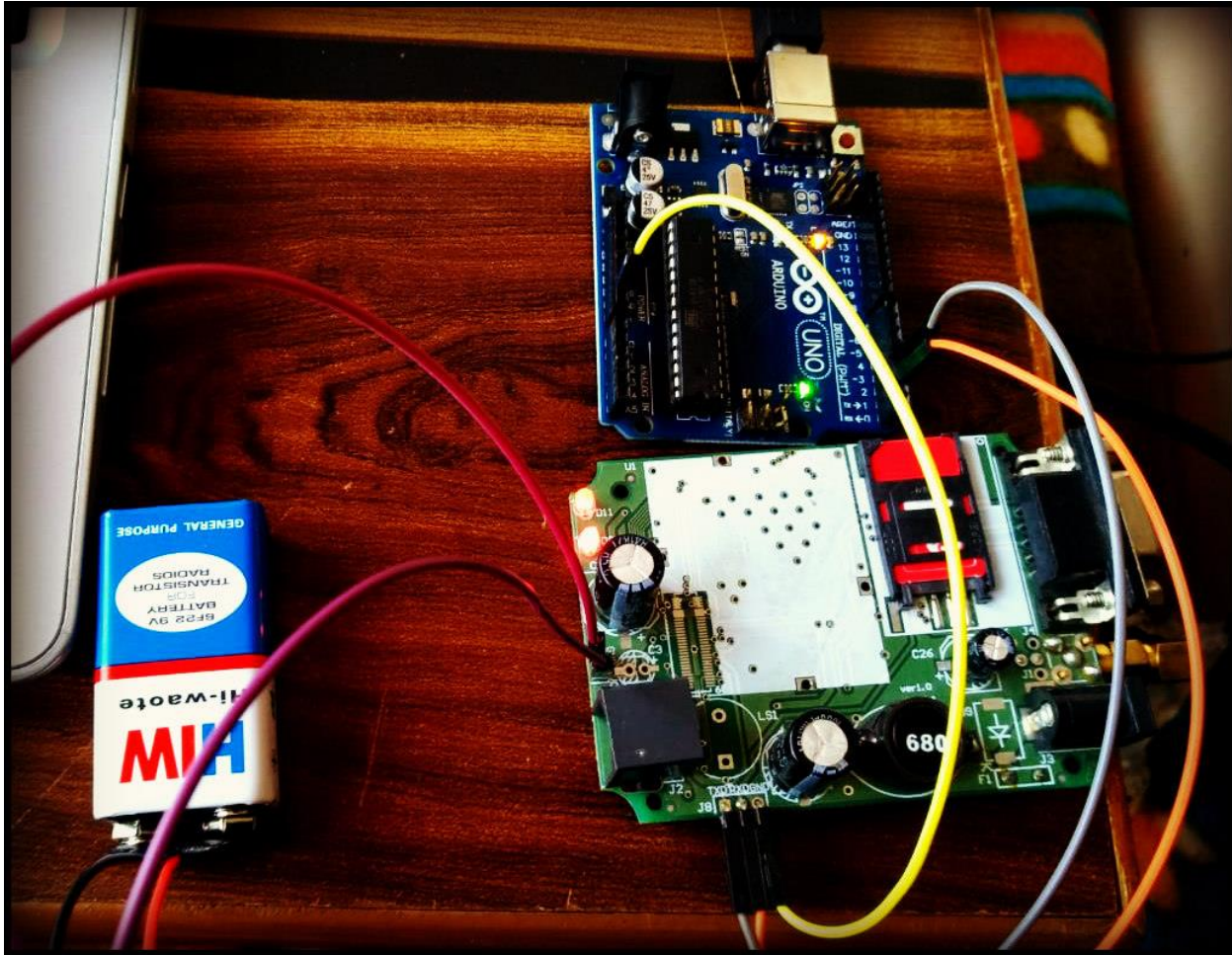
- ARDUINO UNO BOARD
- ULTRASONIC DISTANCE SENSOR
- 9V BATTERY
- DC MOTOR
- BUZZER
- LED
- BREADBOARD

Our Accident Prevention works to prevent vehicle collisions. It detects the distance between two vehicle using Ultrasonic distance sensor and as soon as the vehicle comes close to a specific distance where the possibility of the accident is there then it will send an alarm to both the vehicles. We have shown this with the help of buzzer and led.

ACCIDENT IDENTIFICATION (SCHEMATICS)



DEMONSTRATION



ACCIDENT IDENTIFICATION

In the above schematics, we have explained the working of our Accident Identification, for that we have used->

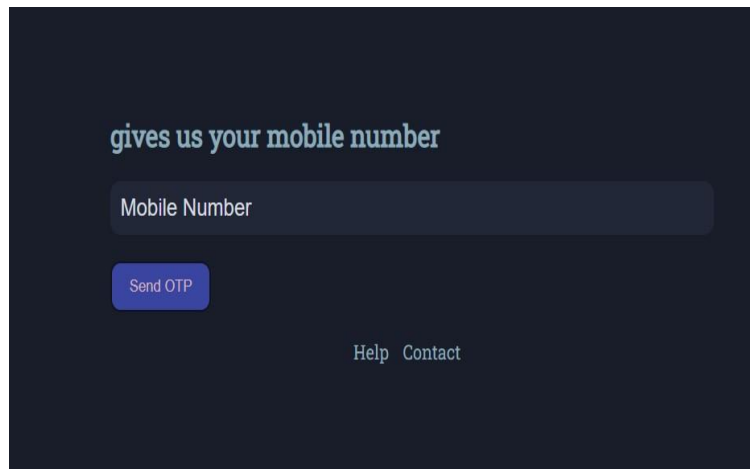
- ARDUINO UNO BOARD
- ALPHANUMERIC LCD
- BUZZER
- LED
- GPRS MODULE

So if due to some circumstances the collision happens then the Accident Identification system will come into action. It will detect the Accident and will immediately send the message to the emergency medical service team. It will also send the current location of the vehicle with the help of GPRS module.

ACCIDENT REPORTING

The idea is to create a portal through which people can report an accident to the police officials .

- People can login in the portal via OTP verification.
- After that, they can make a profile by providing some basic personal information.
- Then they can simply report the accident information to the police



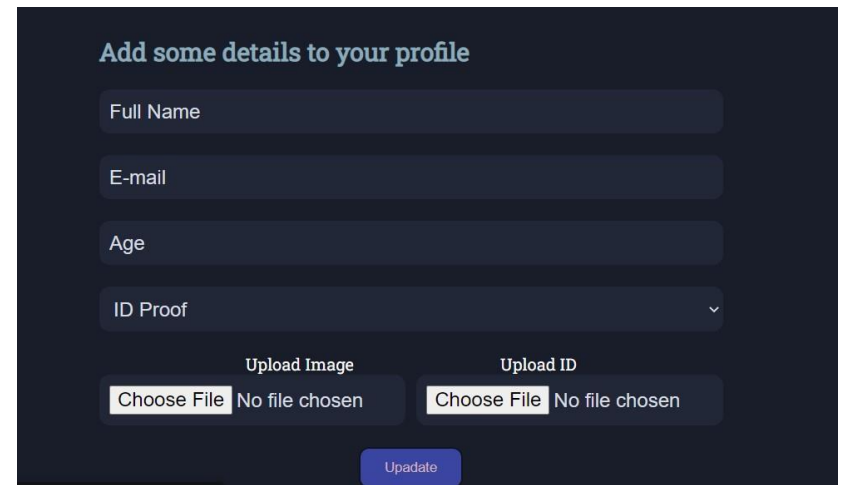
gives us your mobile number

Mobile Number

Send OTP

Help Contact

This is a dark-themed form for OTP verification. It features a text input field labeled 'Mobile Number' and a blue 'Send OTP' button. At the bottom, there are links for 'Help' and 'Contact'.



Add some details to your profile

Full Name

E-mail

Age

ID Proof

Upload Image

Choose File No file chosen

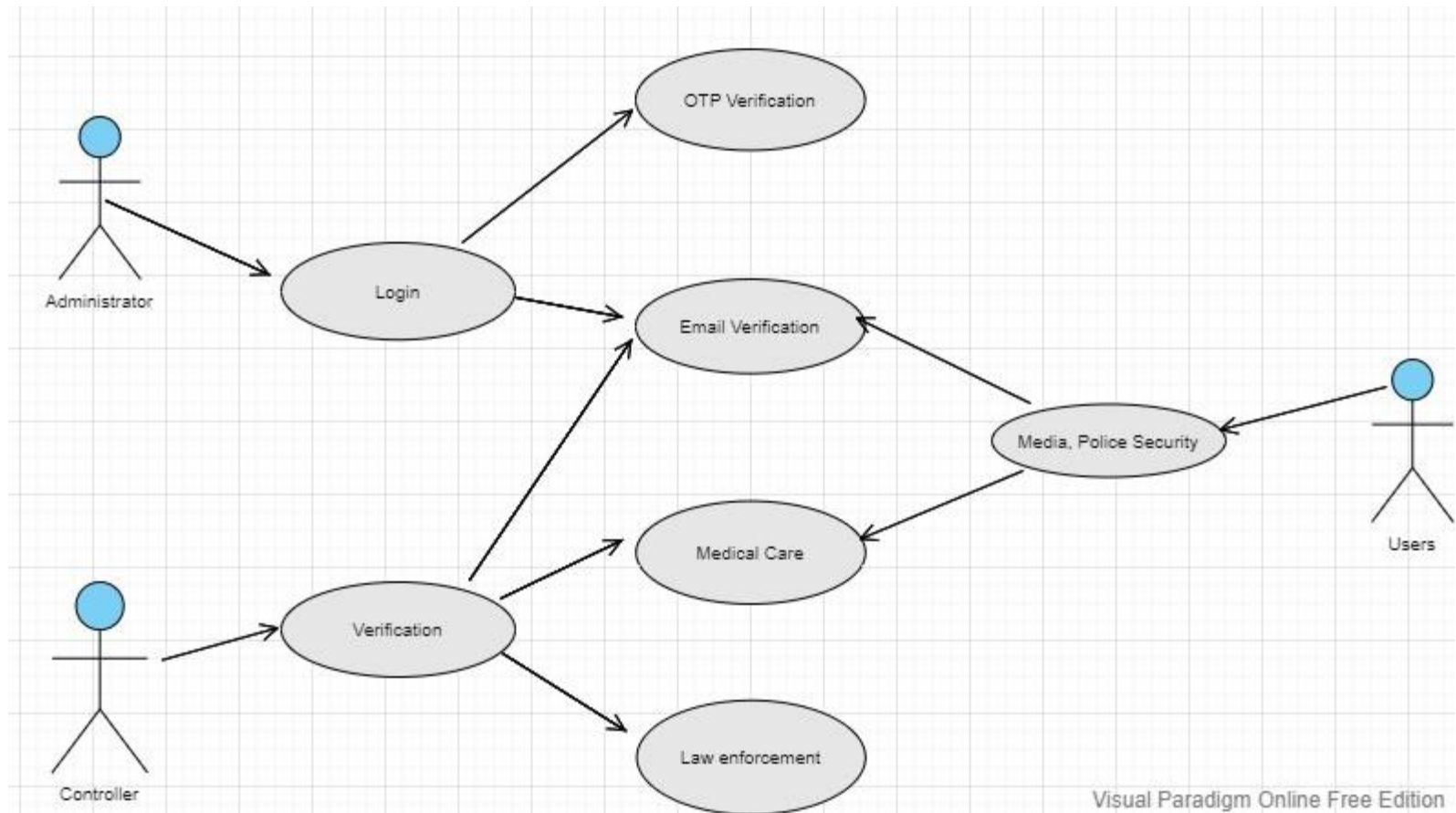
Upload ID

Choose File No file chosen

Update

This is a dark-themed form for adding profile details. It includes input fields for 'Full Name', 'E-mail', and 'Age', and a dropdown for 'ID Proof'. Below these are two file upload sections: 'Upload Image' and 'Upload ID', each with a 'Choose File' button and the text 'No file chosen'. An 'Update' button is at the bottom.

ACCIDENT REPORTING (SEMANTICS)



BUSINESS PLAN

- As we all know, nowadays car companies are focusing more on customer's safety. Government is also bringing new rules regarding the safety of the passengers travelling in four wheel vehicles.
- There are many new ideas being implemented by the automobile companies such as ADAS system (Advance driver-assistance system) , but it's a very expensive solution it can't be implemented on cheaper vehicles.
- So we can implement our idea on a bigger scale as it'll be cheaper solution.





THANK YOU