

COMMUTER SAFETY

together everyone
TEAM
achieves more

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**Dynamic detection of accidents and alerting
the remote emergency services smartly**

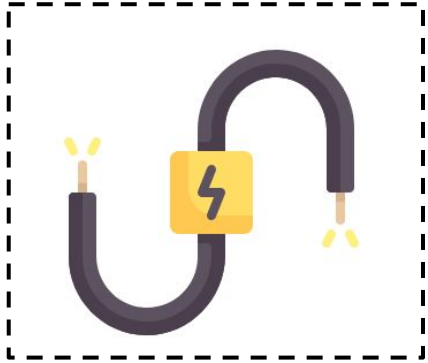




THE PROBLEM STATEMENT

- The news papers are full of articles where a road accident is caused due to **lack of awareness** and **lack of proper communication**.
- The **neglect** and **poor maintenance** of Indian roads have made the road travel very hazardous.
- The number of **deaths due to road accidents** in India is increasing at an alarming rate
- **Pavements** on both sides of the road are not free from encroachments.
- The **repair shops** park their vehicles right on the road space, poor road and street drainage further add to the problem of accidents.
- **Motorcycle drivers** are at an increased risk for serious and fatal injuries due to the dangerous road conditions

CAUSES OF ACCIDENTS



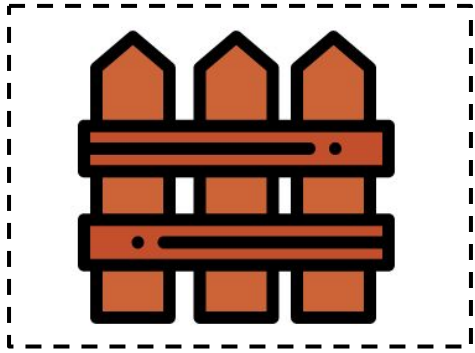
LIVE WIRES



POTHOLES



BROKEN PAVEMENTS



DAMAGED FENCE



UNDER CONSTRUCTION



FALLING TREES



OUR PROPOSAL - PROJECT MODULES

1

DETECT - MODULE



2

ALERT - MODULE



Our Innovation

DETECT - MODULE

Detecting accident will be done by two concepts.

1) **Danger zone**

It will be created using **crowdsourcing** and **web crawlers** and will be indicated by the **Geo-fence**.

The severity of a zone will be defined by the **NLP** powered **Sentiment Analysis** which will be applied on the **user's Views & Comments**.

HOW THE **DANGER ZONES** ARE CREATED:

1.



**SPOTTED
DANGER**

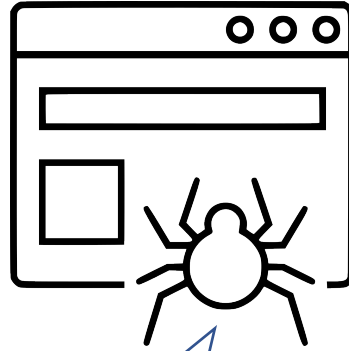
ASSUMING A USER
FINDS POTHOLE WHILE
TRAVELLING

2.



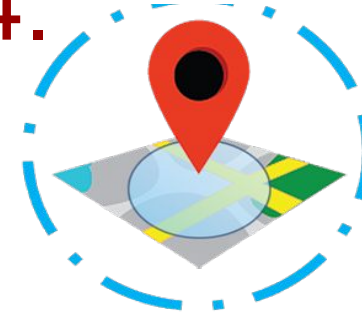
USER WILL UPLOAD
THE PICTURE AND
GIVE THE
DESCRIPTION ABOUT
THE DANGEROUS
PLACE WHICH HE/SHE
HAS SPOTTED

3.

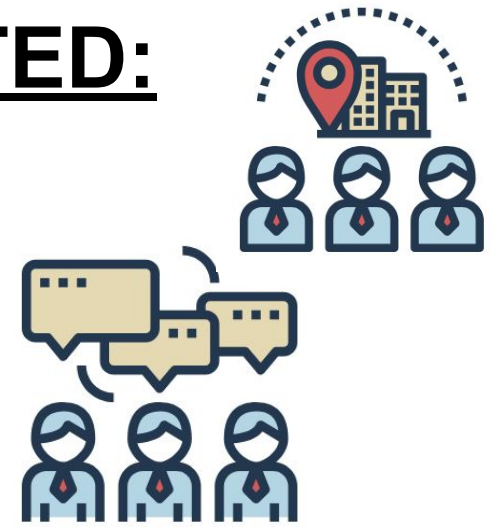


WEB-CRAWLER WILL
CRAWL THROUGHOUT
ALL THE SOCIAL
MEDIA PLATFORM TO
CHECK FOR SOME
NEWS REGARDING
THE LOCATION
UPLOADED BY USER

4.



GEO-FENCE WILL BE CREATED WITH LIGHT COLORS
INDICATING DANGEROUS ZONES. GRADUALLY IT
WILL CHANGE ITS COLOR OR MAY BE REMOVED.
APP-USER ENTERING THE GEO-FENCE WILL BE
NOTIFIED ABOUT THE THREATS OF THAT AREA. HE
CAN ADD COMMENTS/SOLUTIONS ALSO.



5.



LOCATION WILL BE MARKED AS
ACCIDENT PRONE



SENTIMENT ANALYSIS
WILL BE APPLIED ON
THE ZONES TO
DEPICTS ITS SEVERITY

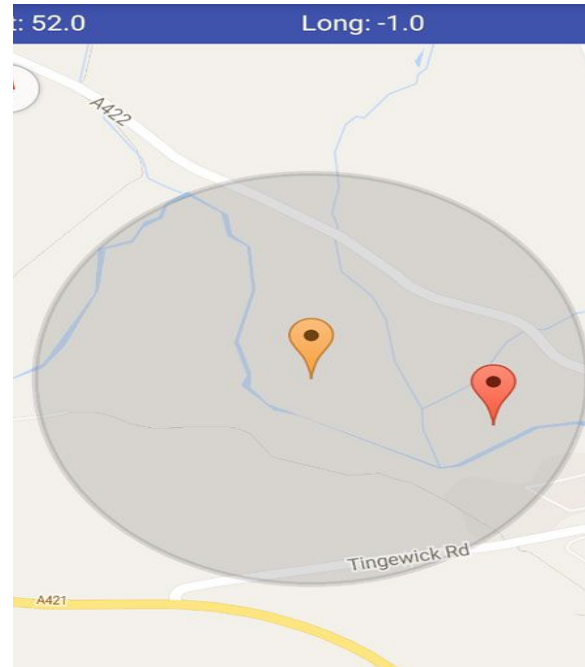


LOCATION WILL BE REJECTED

HOW THE **DANGER ZONES** ARE CREATED:



**MULTIPLE ZONES RESEMBLING
THE DIFFERENT DANGEROUS
AREA**

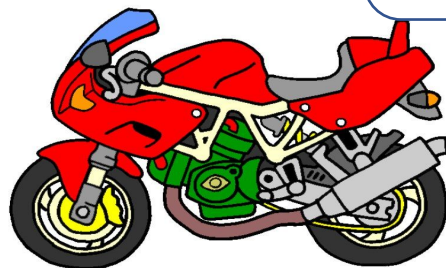
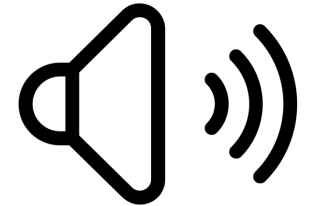
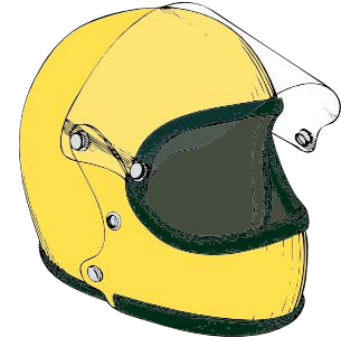
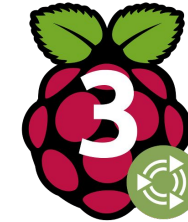
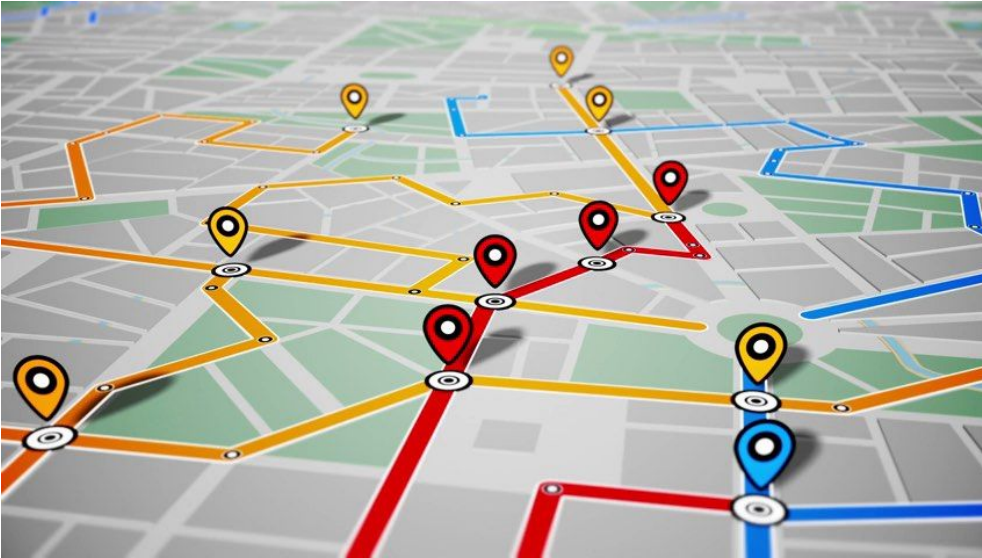


**OUR SYSTEM WILL KEEP ON
TRACKING THE USERS
CONTINUOUSLY AND WILL
NOTIFY IF THE USER ENTERS
THE LOCATION**

KEY FEATURES -

- 1) Aims at creating awareness amongst citizens/commuters about unsafe, accident prone and dangerous areas in the cities by using their current location.
- 1) This allows the user to take necessary precautions or select an alternative route.
- 1) It makes the commuters' journey safer and also helps the authorities to save numerous lives that would've been lost due to lack of awareness about the accidents/dangers in the surrounding.

HOW THE DANGER ZONES ARE CREATED:



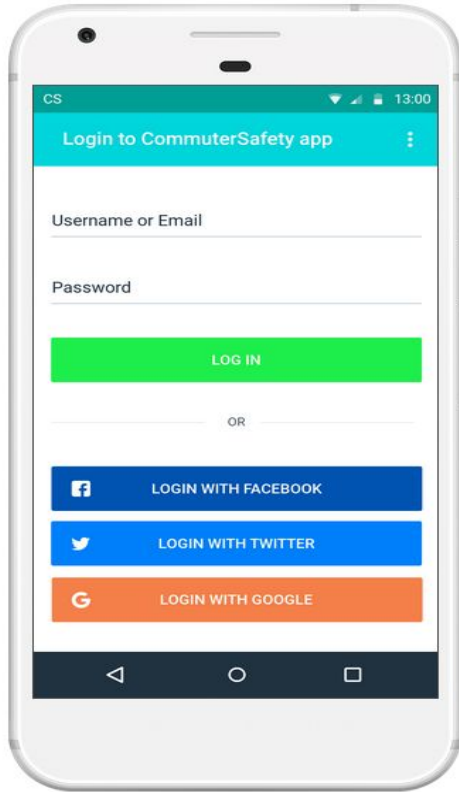
SUPPOSE A CAR ENTERS A DANGEROUS ZONE (GEO-FENCE)

OUR SYSTEM WILL SPEAK OUT THE DESCRIPTION OF THE DANGEROUS AREA THEREBY SPREADING AWARENESS OF AN ACCIDENT PRONE ZONE.

THIS WOULD ALLOW USER NOT TO ENTER BY FINDING SOME OTHER ROUTE OR MAKING THEM ALERT ABOUT THE DANGER THAT MAY OCCUR WHILE TRAVELING

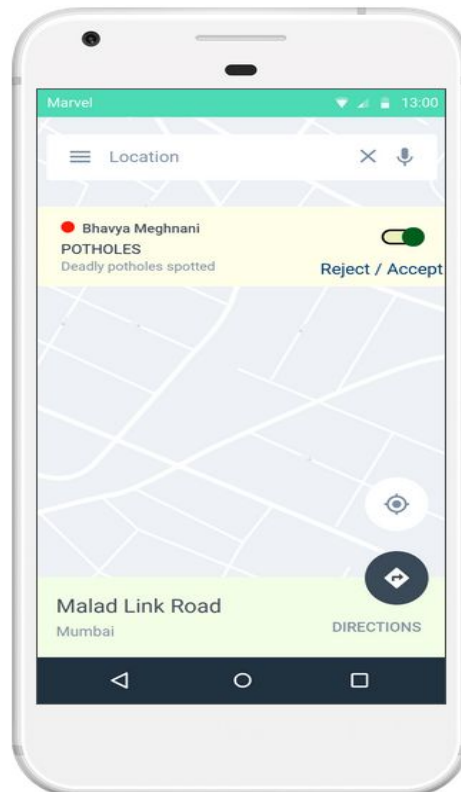
Add-Ons

WIREFRAMES



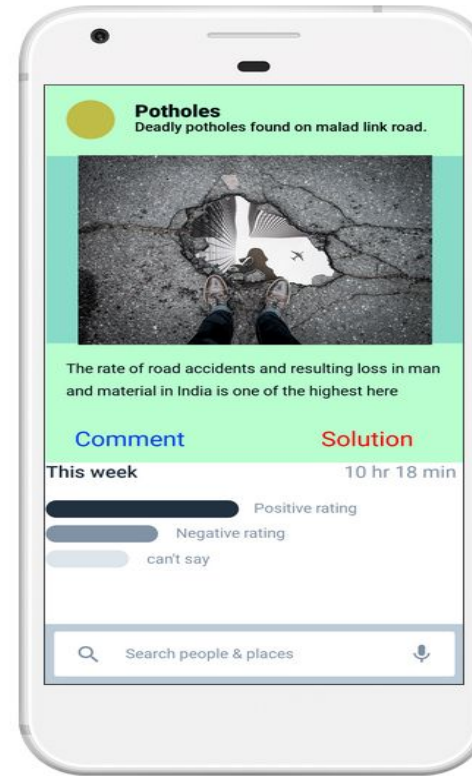
1. Log In /Sign Up:

The app requires permission to use the camera, location, etc. Each user will have a specialized account.



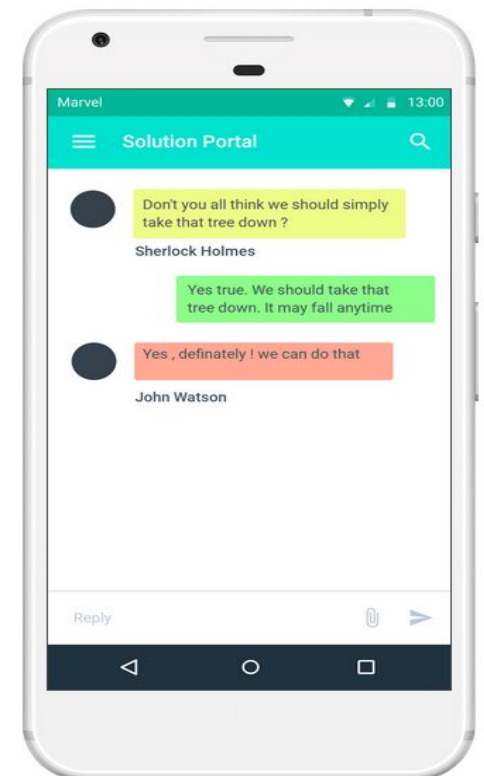
2. Wall:

The app tracks your location and gives you live updates if you pass by a potential danger zone, along with pictures and comments about the same.



3. Danger Description:

Each danger zone (Geofence) will be accompanied by a verified image and a list of user comments. One can add /view the comments.



4. Solution Forum:

All the users would be able to view the potential danger zones and comment on them, based on which the zone will change colours or be removed.

EXISTING TECHNOLOGY



DRAWBACKS

- A platform wherein you can just give voice and share stories and concerns in society.
- Does not notifies the user about the unsafe zone dynamically using its current live location.
- It does not prevent the user to enter into an accident prone zones.
- Non scalable & reliable app

TARGET AUDIENCE



Students



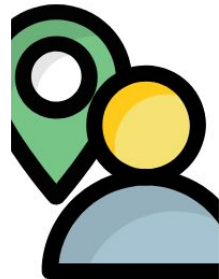
Office going people



People new to the city



**Foreigners unaware about
the city and its places**



Local residents

Meeting The Criteria

FEASIBILITY -

1. Commuter Safety app can be **easily downloaded and adapted** by the citizen of our country as it aims at giving the information of the accident prone zones without paying any cost for it.
2. **Realtime database** like firebase is available for storing and retrieving position of users in the form of coordinates.
3. Also , it **smartly notifies the user** when they enter any particular zone thereby executing and spreading the awareness only when they are engaged with zone.

COST -

1. Commuter Safety is very cost effective project and extremely easy to install.
2. The idea Commuter Safety is adaptive and extremely scalable as it entirely works on the newly emerging technologies that are beneficial in living of the user.
3. A flexible system that can be integrated into any system.
4. It is developed using resources which are reliable and scalable in terms of updates

SOCIAL IMPACT -

1. Our project can be beneficial to a wide audience consisting of everyday commuters, students, working class, tourists including foreigners and local residents. Each human being has a moral duty to help others and through the app “Commuters’ Safety” citizens can tell others about potential danger zones.
2. The app empowers people to do their bit towards society. This application will help save many lives that are lost because of lack of awareness and miscommunication.
3. This helps the people living nearby the danger zone to be aware of the potential threat to their locality.
4. Our project creates a social awareness among people regarding the necessary steps needs to be taken to tackle such dangerous threat and help their fellow commuters to be safe and sound so they can return to their family after their daily chores securely.

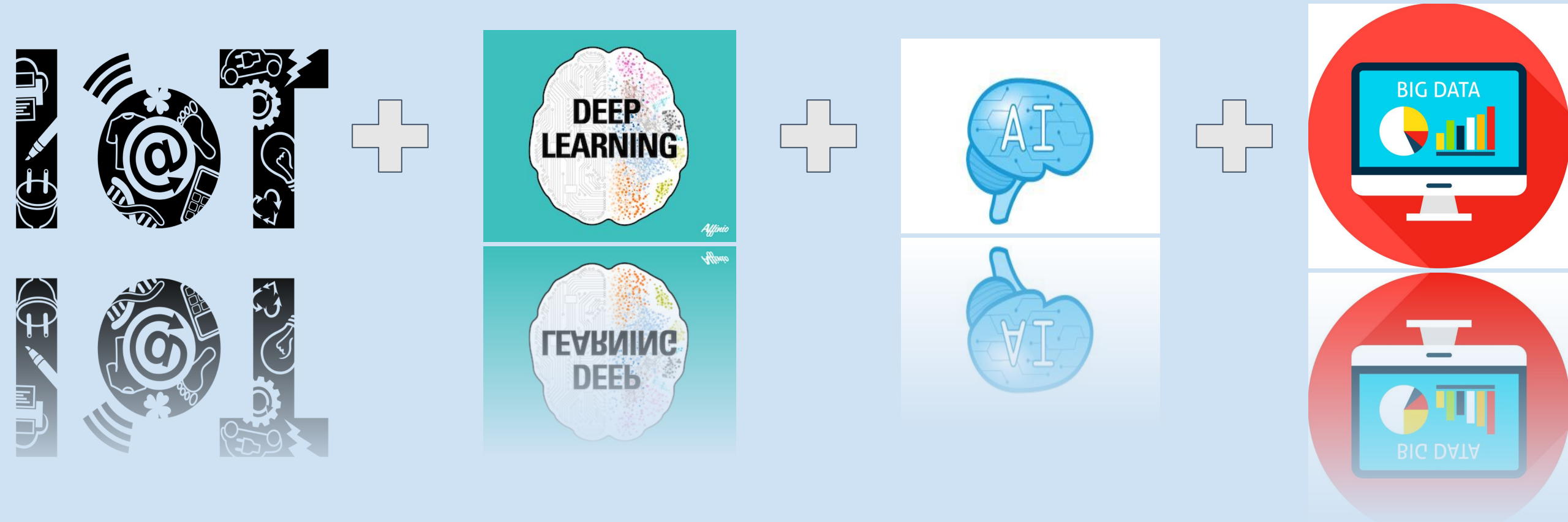
SUSTAINABLE / DURABLE -

1. It is a **one-time-invest** project which then evolves automatically in the background without any user's activity.
2. It is a **self-directing project** that helps the user to alert and give information about the various dangerous zones while they are traveling.
3. It is dependent on user's comments and data images and social media sites which will help the system to **self-learn and adapt the changes** according to the future inputs.
4. As long as any **minor or major faults** that exists in the **transportation facility of our country** , the project **survives by spreading awareness** of such dangerous zones.

ENHANCEABILITY -

1. We can reach out as many **municipal corporation** and many such **helping organization** which will **help them in getting information about the dangerous zone** as its difficult for any organization to cover all such accident prone zones.
2. Also we will take this project to each and every ward zones and administrative divisions which will help them to **know about the area** under them and also what people think of a particular location which will further help them in building those areas a better and safer place to live in.
3. This will definitely **decrease the death rates** as people will be **well aware** about the accident prone zone beforehand.
4. We can reach out to many companies related to transportation , so that they can integrate this system with their vehicle during manufacturing.

Technologies Used



HOW TO AVOID DYING?



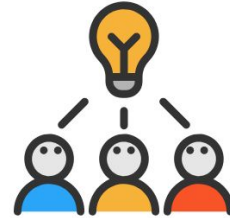
HIRE A
BODYGUARD



KNOW YOUR
FUTURE



FIGHT FOR
YOUR LIFE



RECKON SOME
SOLUTIONS



OR SIMPLY DOWNLOAD
AND INSTALL
**“COMMUTER
SAFETY”** PROJECT

IMPACT

- Our project can be beneficial to a wide audience consisting of everyday commuters.
- Each human being has a moral duty to help others and through the app “Commuters’ Safety” citizens can tell others about potential danger zones.
- The app empowers people to do their bit towards society.
- This application will help save many lives that are lost because of lack of awareness and miscommunication.

Conclusion

- This system will definitely help in **decreasing the death rates** as people will be well aware about the accident prone zone beforehand.
- Also most of the accidents are caused by either **drunk driving or sleepy condition** which can be **detected and prevented by our system**.
- We can reach out as many **municipal corporation** and many such helping organization which will help them in **getting information** about the **dangerous zone** as its difficult for any organization to cover all such **accident prone zones**.

The End.