

THERES A MONSTER AMONG US

7 PEOPLE DIES EVERYDAY
DUE TO THIS MONSTER
AND THATS 2555 DEATHS PER YEAR

THIS MONSTER CREATES AN
AVERAGE RISE OF **60%** IN
HARMFUL EMISSIONS



WE **LOSS** OVER A **MILLION**
GALLONS OF FUEL AND ESSETIAL
RESOURCES DUE TO THIS MONSTER

A DIRECT **40% INCREASE** IN
TIME TRAVEL

THIS MONSTER IS KNOWN AS A **BAD ROAD**

BUT WHAT DEFINES A BAD ROAD?

A **BAD ROAD** is simply a road or street which is flooded with potholes, degenerated construction and overloaded traffic which results in a bad user experience and many tragic events

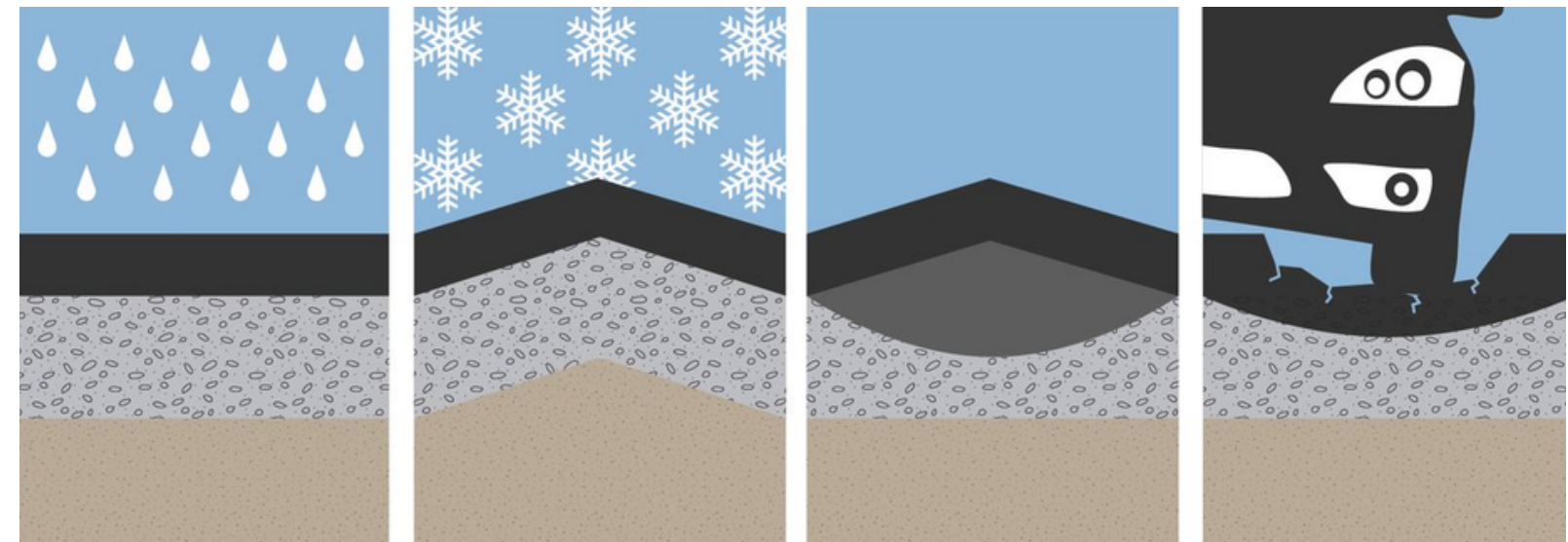


BUT WHAT CAUSES SUCH TERRIBLE CONDITIONS OF ROAD?

THE MAJOR CAUSE WHICH WE CAN IN THE
ABOVE STATED EXAMPLES AND PICTURES
ARE ONE THING "**A POTHOLE**"

BUT WHAT IS A **POTHOLE** AND HOW IT IS CAUSED !!

A pothole is formed when a circular current of water carrying small pebbles and sediment begins to wear away a rock surface. The force of water and the sediment it carries is greater than the resistance of the rock. Once the process has begun, it continues and the rock in that location continues to erode away.



SO NOW WE KNOW THE PROBLEM AND WHAT CAUSES THE PROBLEM

BUT IS THERE A SOLUTION FOR IT ??

As potholes was and is a major issues there were a lot of new techniques that were built to tackle this problem some of them worked some of them failed some was expensive some was tedious.

01. LASER/ULTRASONIC SENSOR

The 3D laser scanner uses a technique that employs reflected laser pulses to create accurate digital models of existing objects.

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02. DRONE MAPPING

Drone Mapping work along with the technology of photogrammetry which is the science of making measurements from photographs.

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03. VIBRATION SENSOR

Vibration based method employs accelerometers as sensors. This is a device that measures total specific external force on the sensor.

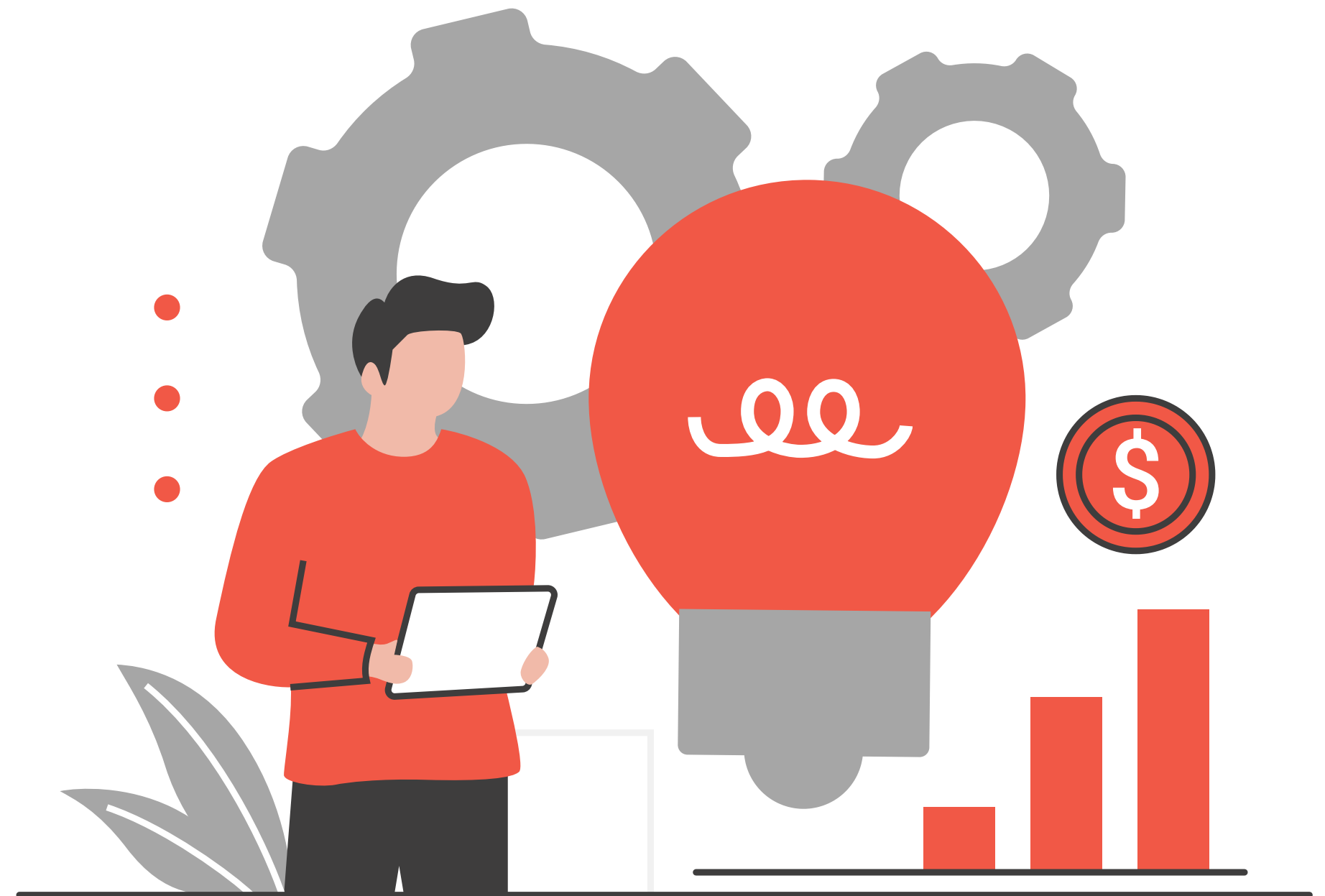
04. IP

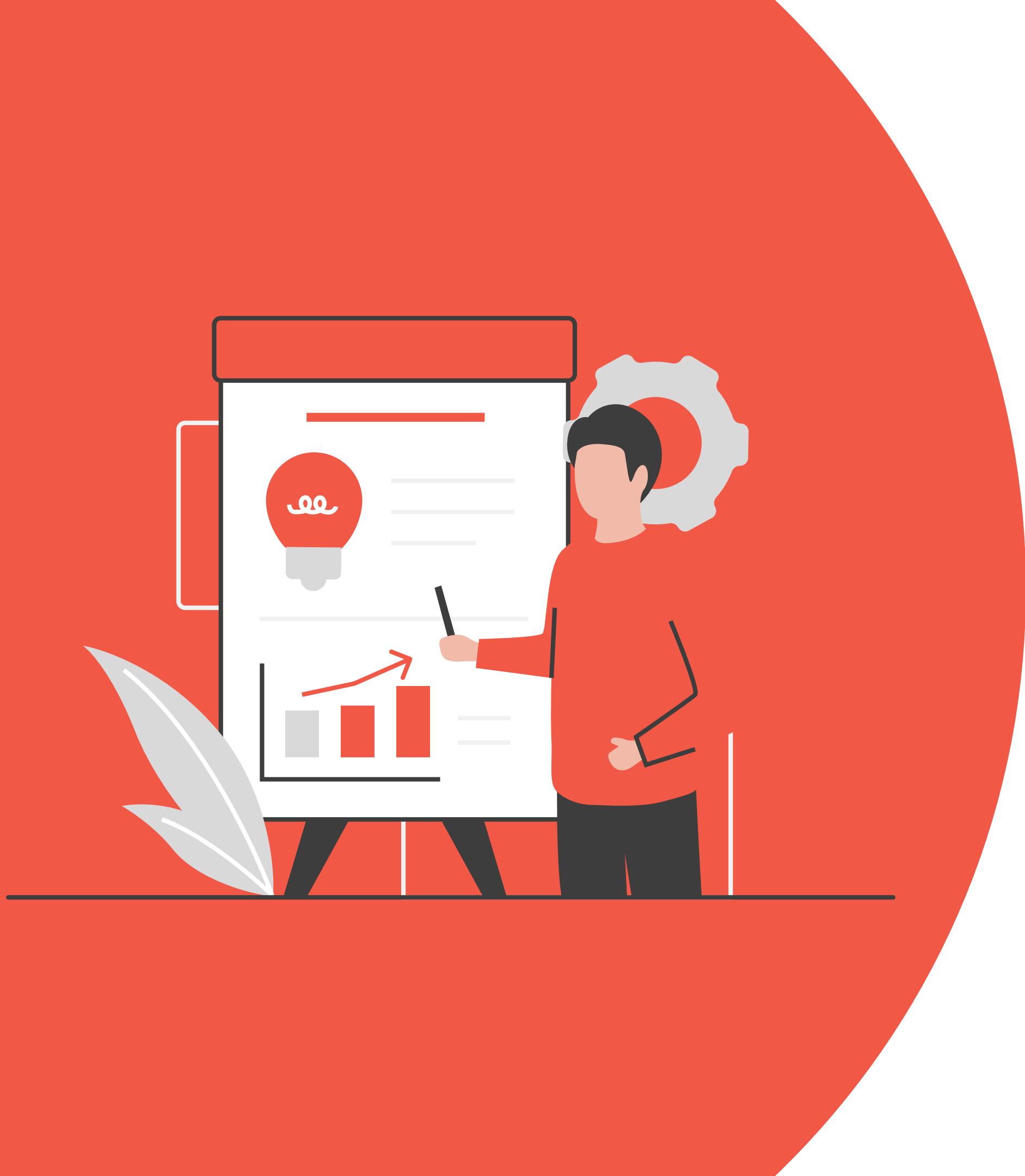
Image processing is a method to perform some operations on an image, in order to get an enhanced image or to extract some useful information from it.

SO THERE ARE IDEAS AND SOLUTION TO CURE THIS PROBLEM RIGHT ??

yes there were but some of them were just very tedious
some required advanced technology
and some were just utterly expensive
and many of them are just not feasible

SO WE REALLY NEED A SOLUTION !!





SO HERE WE PRESENT **GOSAFE**

**GOSAFE IS A PWA BUILT WITH THE
HELP OF UNL API.**

SO WHAT IS GO SAFE ?

GOSAFE is basically a p2p app which helps
user to find the best route
To coordinate with people easily in case of
emergency.
And to make this world a better place

BUT HOW? LETS SEE ...

 **SO WE PROVIDE OUR USER
WITH 3 MAJOR FEATURES**

REPORT POTHOLE/ ANY OTHER INCONVENIENCE

ITs an webapp for the people by the people and from the people. Basically you can now report an inconvenience (for eg. a pothole) by clicking a live picture of it . that data will be checked and collected and then it will get forwarded to the required govt. facilities. But you'll ask why will you do that ??? so guys heres the deal for every pothole or issue you register you basically contribute to the well being of the society and that will end up rewarding you for the same

EMERGENCY CHATS

not everyone will be there when you need them. So here you can just keep the people you rely the most on just one click away from you.

which will help you to seek for guidance and aid in case of emergency as soon as you need

MAP WITH BETTER NAVIGATION

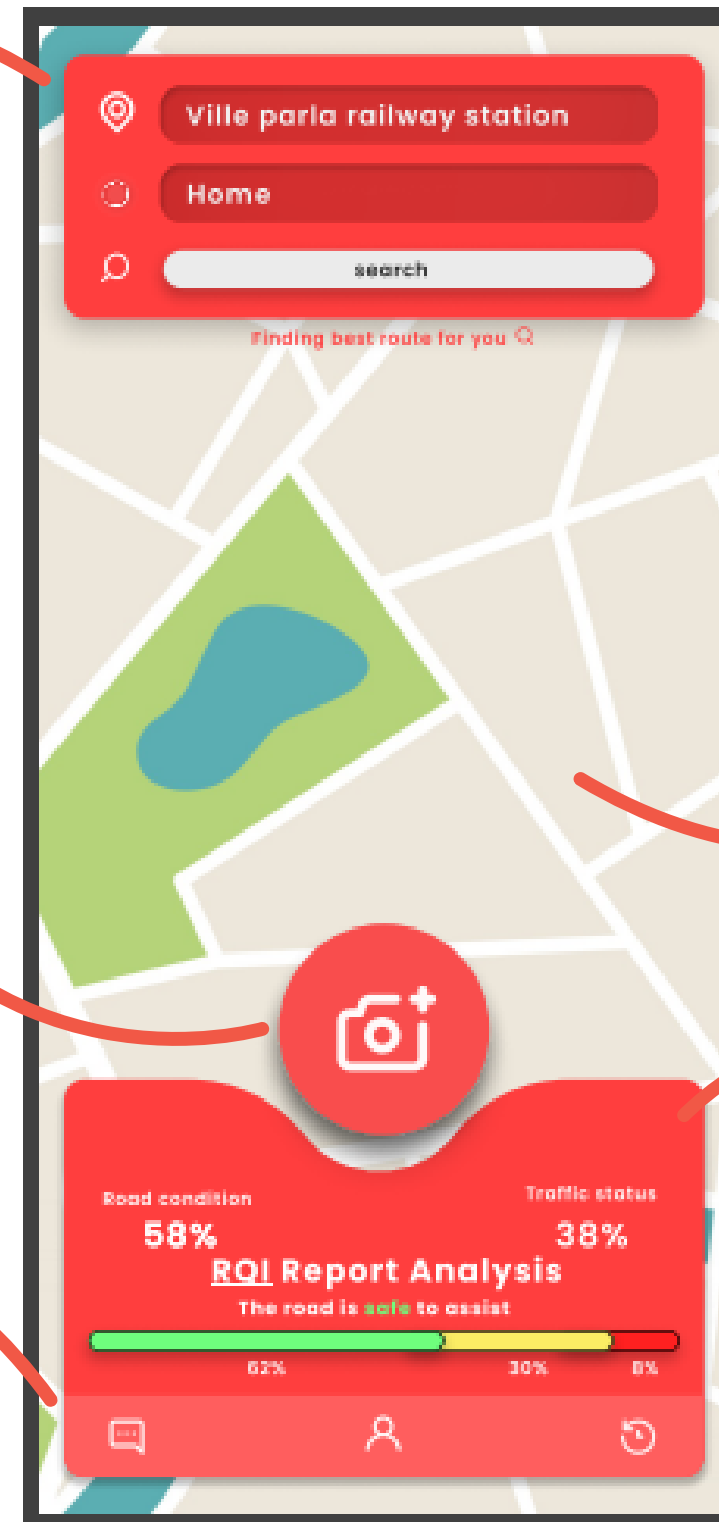
For giving a better analysis of area we are using the gradient system of the map with our own made algorithm (in progress) which will help us define areas on the basis of zone system (green, yellow and red) which will help user to navigate through the best route.

FLOW OF THE WEB APP

A from too route search button to **navigate** you in **finding the best route**

A **click and upload button** to register any inconvenience you encountered

Bottom navbars to navigate you through the panels like your **account** **emergency chats** and **history**



AFTER YOU LOGIN/SIGN UP YOU WILL BE DIRECTED TO THE DASHBOARD WHERE THE MAIN THING BEGINS

UNL map api map which is used here to show the route + display info of it and pass it to the screen of user.

Based on your search result here it is our detailed analysis of the road and the condition of the road you are taking on the basis of user fed data and **Road Quality Index**

FEATURES OF PROPOSED SOLUTIONS



FOR PEOPLE BY PEOPLE

this app is basically you helping yourself and same goes for the others this web app will encourage people to report inconvenience and to make a database that will help to encounter more problems



REWARD SYSTEM

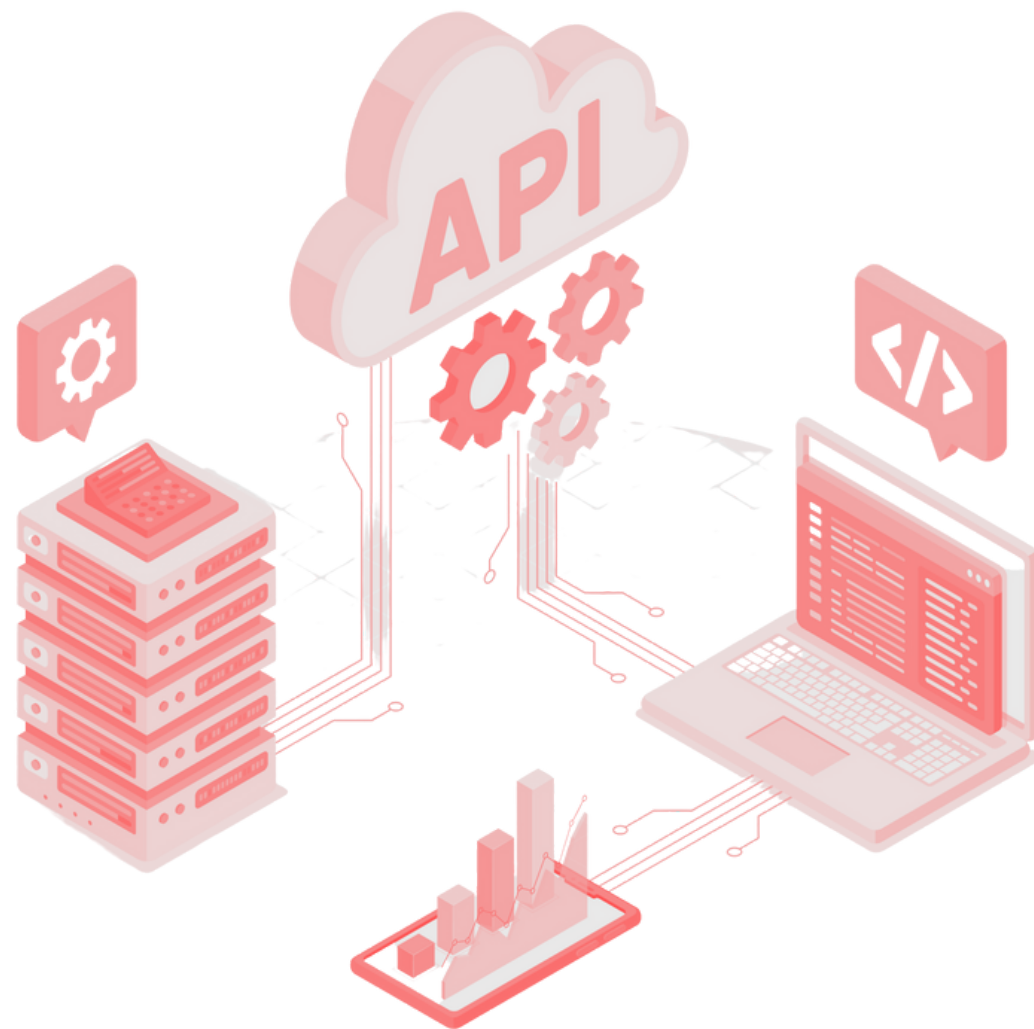
The app will detect genuine responses and reward its user to boost their moral support and to keep the community going



EMERGENCY CHATS

At the time of emergency there are only few true ones that will come up to you. so here's the emergency chat feature which has a list of your SOS time contacts to whom you can directly chat and send location in one click in case of emergency.

API USED AND THEIR IMPLEMENTATION PROCEDURE



MAP SDK

To display map and routes by adding layers. Also using gradient expression to display the zone and RQI density

GEOCODING FORWARD

Converting string based location in geo hash format to extract the coordinates and which will find the accurate position

ROUTING

The svg which marks the path of one location from other is used and which shows the color variation is done using routing API



FUTURE SCOPE

At the end we just want to conclude that our aim from the start was if you cant cure the problem youll prevent it youll make people aware of it. UNL apis played a bg role is doing so. There are still a major no. of fields we can work on and can improve . There are still ideas which are yet to be implemented like govt. assistant within the aoo. Using live users data to make the routing and geocoding more precise, using ML AI for detecting images uploaded and sorting them and working on the reward system.

REFERENCES

http://www.geo.mtu.edu/KeweenawGeoheritage/The_Fault/Potholes.html#:~:text=A%20pothole%20is%20formed%20when,location%20continues%20to%20erode%20away.

<https://www.freepik.com/>

<https://www.google.com/search?>

[q=pothole+formation&rlz=1C1CHBD_enIN974IN974&oq=POTH&aqs=chrome.0.69i59l4j69i57j69i60l3.1396j0j7&sourceid=chrome&ie=UTF-8](https://www.google.com/search?q=pothole+formation&rlz=1C1CHBD_enIN974IN974&oq=POTH&aqs=chrome.0.69i59l4j69i57j69i60l3.1396j0j7&sourceid=chrome&ie=UTF-8)

<https://unl.global/>

A large, solid red circle is positioned on the left side of a white background, partially cut off by the left edge. The circle's right edge is a smooth curve that extends towards the center of the frame.

THANK YOU