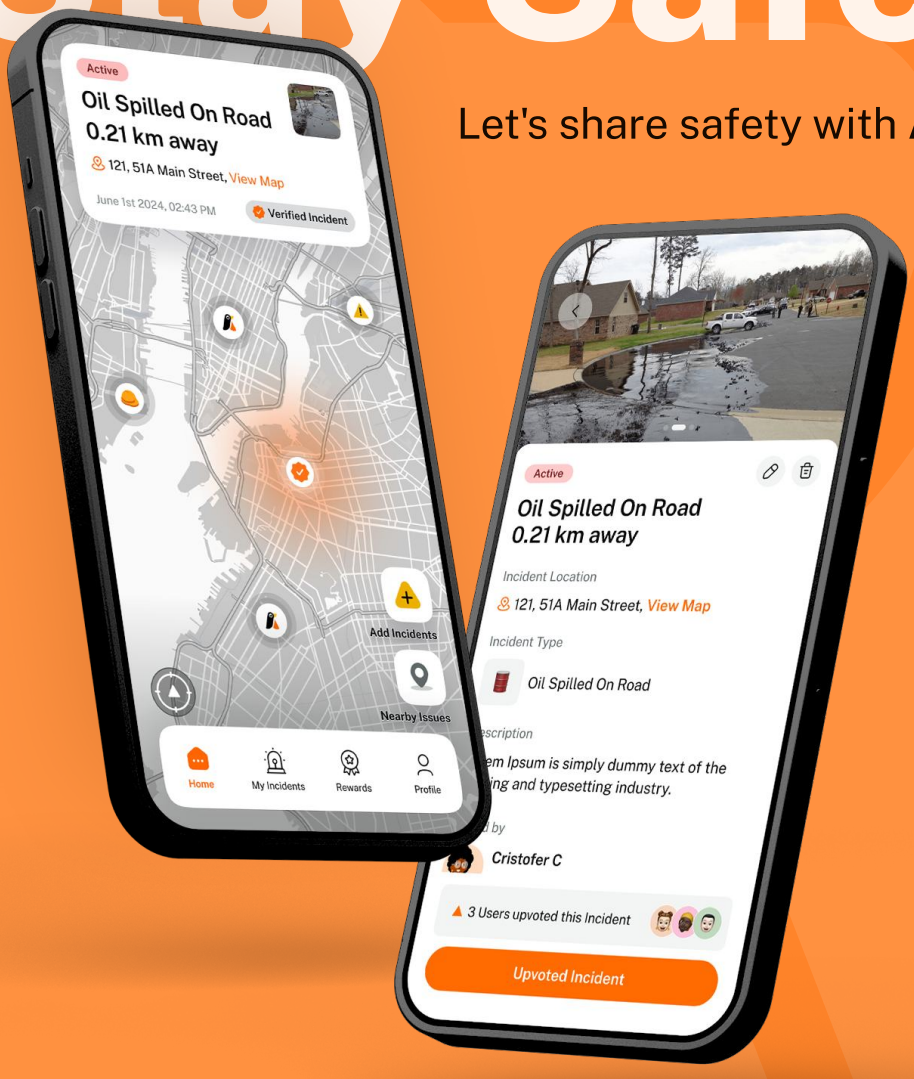
alertme

Stay Alert, Stay Safe

Let's share safety with **AlertMe**!



Project Proposal

www.alertme.tech

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Real-Time Reporting & Resolution of Construction Hazards

Product Overview

The problem

Construction sites can be unsafe due to their constantly changing nature. Pedestrians and drivers often encounter unprotected areas, debris, closed-off sections, and active work zones. These hazards pose significant risks, but the public frequently doesn't know how to report them. Although the site supervisor is the most appropriate person to address these concerns, contacting them is often difficult, leading to unresolved issues and increased danger for everyone nearby

Real-Life Example

A user noticed debris on the sidewalk near a construction site and reported it. Other users liked the report. The site supervisor reviewed and approved it, making the issue visible to all users in the area until resolved.

- User reports and community engagement.
- Supervisor approval and issue visibility.

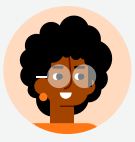
The Solution

Develop a digital platform where civilians can report construction site hazards, rate reports from others, and receive notifications about hazards. Site workers can review and approve reports, notify users and other construction employees, and address the issues. This app will make construction sites safer for everyone.

AlertMe is tailored for

Civilians

Civilians report hazards with GPS, photos, and descriptions. They rate reports, get notifications, and earn rewards for active participation



Construction Workers

Supervisors and workers can define zones, post tasks, and manage reports. They review, approve, and resolve hazards, keeping users informed

AlertMe Features

Civilians

Report Incidents

Bypassers, and vehicle riders can report safety incident

Review Incidents

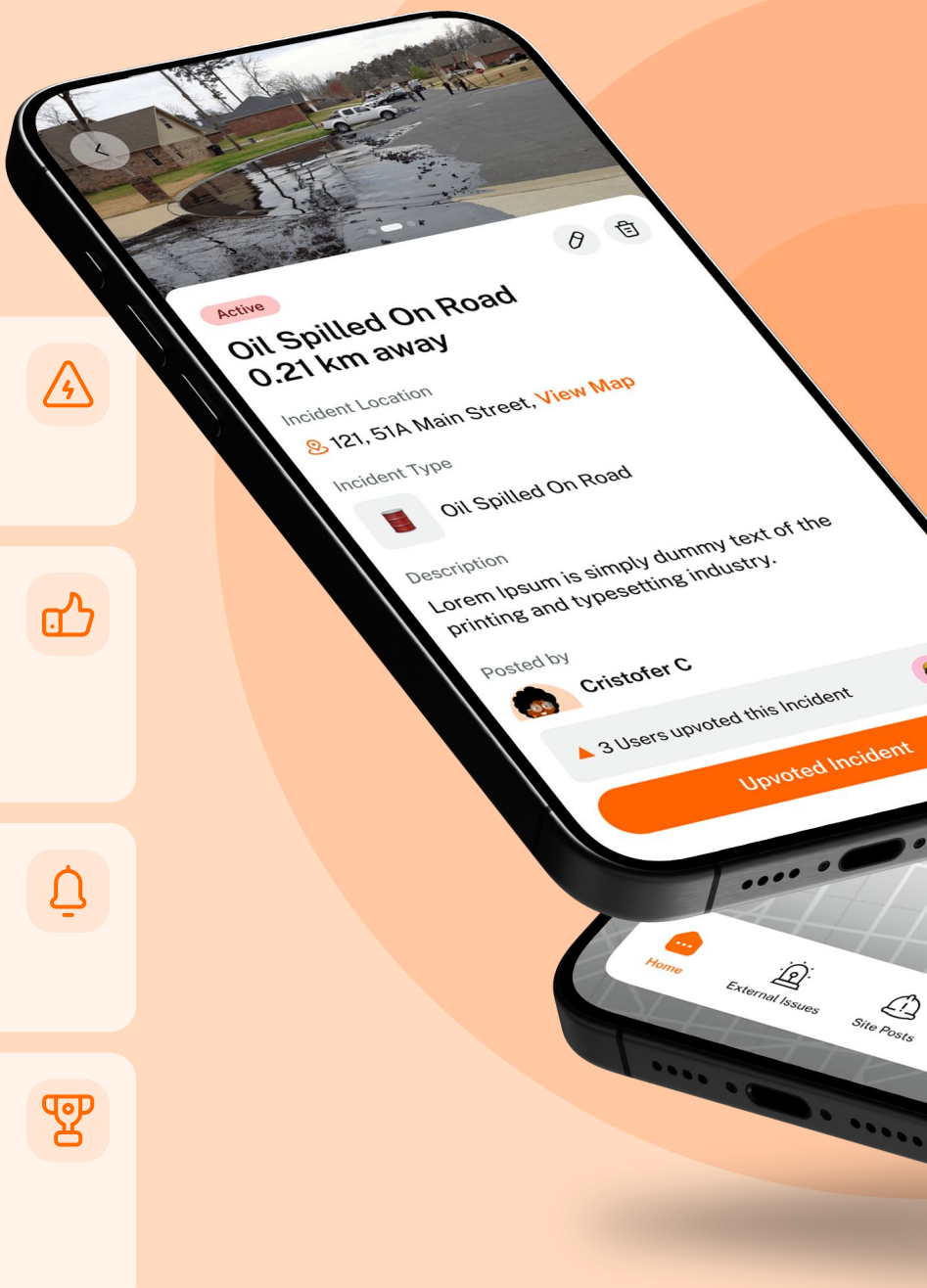
Users can review reported incidents and upvote them reports

Real-time Notifications

Users receive notifications about approved hazard reports.

Rewards & Gamification

Users can earn bandages and experience points by submitting genuine reports.



Construction Workers

Geo-Fencing

Workers can define and mark construction site zones on a map

Approve Incident

Workers review and approve/ decline Incidents reports

On-site Incident Control

Construction site worker can also report and control on-site hazard for for other workers.

Competitors

Features	AlertMe	Waze	Google Maps	Safety View
Geofencing	✓	✗	✗	✗
Report & Upvote Incidents	✓	✓	✓	✓
Real-Time Incident Alerts	✓	✓	✓	✗
Rewards and Gamification	✓	✓	✗	✗
Action on Reports	✓	✗	✗	✗

Google maps

Google maps are the widely used navigation apps that support multi-functionalities and allows its users to reach their destinations by giving real-time traffic data.

https://www.google.ca/maps

Waze

Google acquired Waze in 2013 but maintained it as a separate app with its own developers. Waze is a road navigation app that allows users to report incidents and socially connect with other drivers.

https://www.waze.com/en-GB/live-map/

Safety View by INRIX

Safety View" is a collaboration with GM Future Roads. This application helps city transportation planners analyze data on crash locations, factors, speeding areas, etc.

https://inrix.com/products/safety-view-by-gm-future-roads-and-inrix/

Get notified on verified reports near you

Project Timelines

Design Timeline

Week 1-3
Research & Ideation

Week 1

- Identify project goals and objectives
- Conduct market research and gather relevant data

Week 2

- Analyze direct and indirect competitors
- Create user personas based on target audience
- Map out the user flow for the app or website

Week 3

- Conduct user interviews to gather insights
- Create initial wireframes based on research and user feedback

Week 4-6
Initial Designing & Testing

Week 4

- Refine wireframes based on feedback
- Conduct usability tests to identify any issues

Week 5

- Modify wireframes based on usability test results
- Conduct another round of usability tests if necessary

Week 6

- Design the logo and branding elements
- Develop a UI Kit with consistent design elements

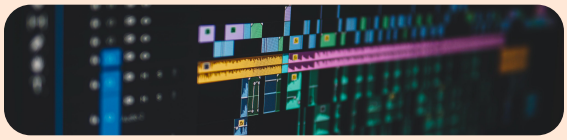
Week 7-10
Prototyping & User Testing

Week 7

- Create a high-fidelity prototype incorporating branding and UI Kit

Week 8

- Conduct user testing on the prototype
- Make necessary modifications based on feedback



Week 9

- Integrate sounds and animations into the prototype
- Finalize the interactive prototype

Week 10

- Conduct further testing and make final adjustments

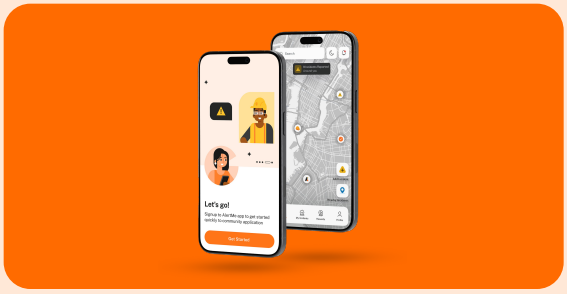
Week 11-13
Presentation & Launch

Week 11

- Write a detailed project proposal document
- Create initial presentation slides

Week 12

- Develop marketing assets (e.g., social media graphics, promo videos)
- Finalize the proposal document and presentation slides



Week 13

- Launch the website or app
- Present the final product demo to stakeholders

Development Timeline

Week 1-3
Planning and Research

Week 1

- Brainstorm and list potential project ideas.
- Conduct research to validate and refine ideas.

Week 2

- Choose the best idea and outline the project scope.
- Identify key features and functionalities for the project.

Week 3

- Select the technology stack for the project.

Week 4-6
Design and Architecture

Week 4

- Design the data model and database schema.

Week 5

- Create a detailed development timeline.
- Set up a Github repository for version control.
- Establish development workflows and tools.

Week 6-10

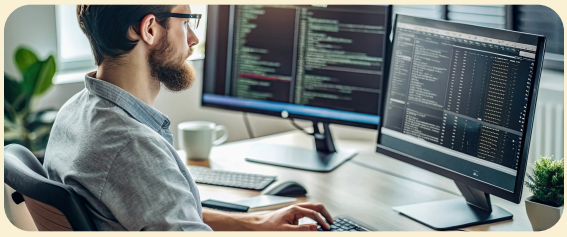
Development

Week 6

- Initialize the backend framework and environment.
- Initialize the frontend framework and environment.

Week 7

- Develop the basic UI components.



Week 8

- Create the backend APIs for data handling.

Week 9

- Integrate all features into the app.

Week 11-13

Testing and Presentation

Week 10

- Present the alpha version of the app for feedback.

Week 11

- Conduct thorough testing to identify bugs.
- Refine and improve the frontend UI/UX.

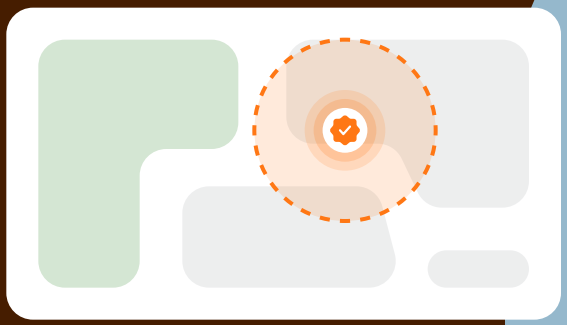
Week 12

- Address and fix identified bugs.
- Present the beta version of the app for review.

Week 13

- Perform final testing and bug fixes.
- Deliver the final presentation of the completed app.

As a site supervisor, I want to mark the construction hazards on a detailed map so that everyone can see it



Post On Map

UX Design

Background Research

Construction sites are bustling with tasks and processes, creating many potential hazards for workers and nearby people. Recognizing and managing these risks is a moral duty to protect those building our world.

Common reporting categories

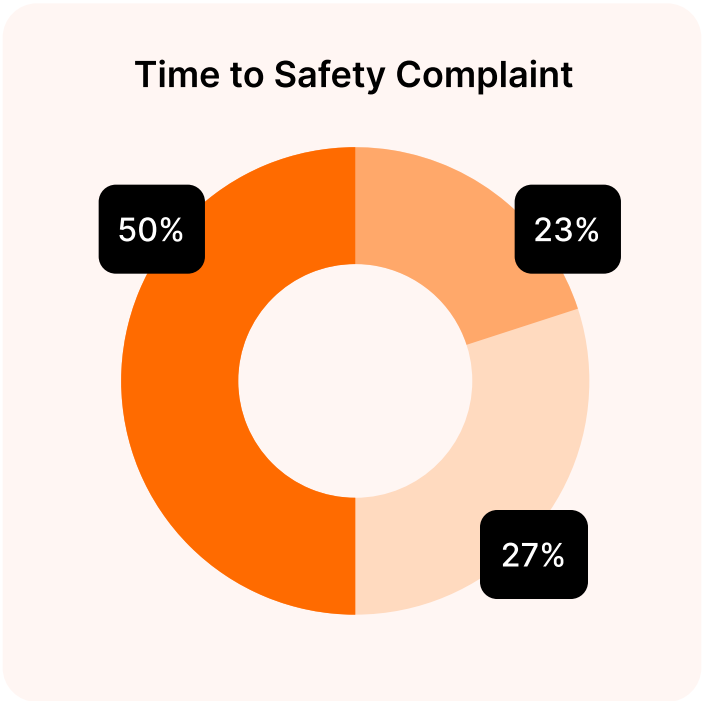
- Hazards
- Heavy Machiney
- Construction
- Oil
- Ice on Road
- Road Block
- Incidents

User interviews

Reporting Hazards or Safety Concerns

We asked, "Do you use any apps or platforms to report hazards or safety concerns?" The majority, 80%, responded, "No, I don't use any specific apps or platforms.""

- Yes please specify
- No, I don't use



Response Time to Safety Complaint

We asked, ", how long does it take for your team to address and respond to a safety complaint through the app?" 50% responded with "Not applicable.

- Not applicable
- 1-2 Hours
- 2-4 Hours

Personas

Martin Westervelt

Construction Site Supervisor,
Vancouver, CA

Martin Westervelt is a construction site **supervisor** with 21+ years of experience. He excels in detail, leadership, and ensures safety rules are followed while managing daily operations.

Pain Point

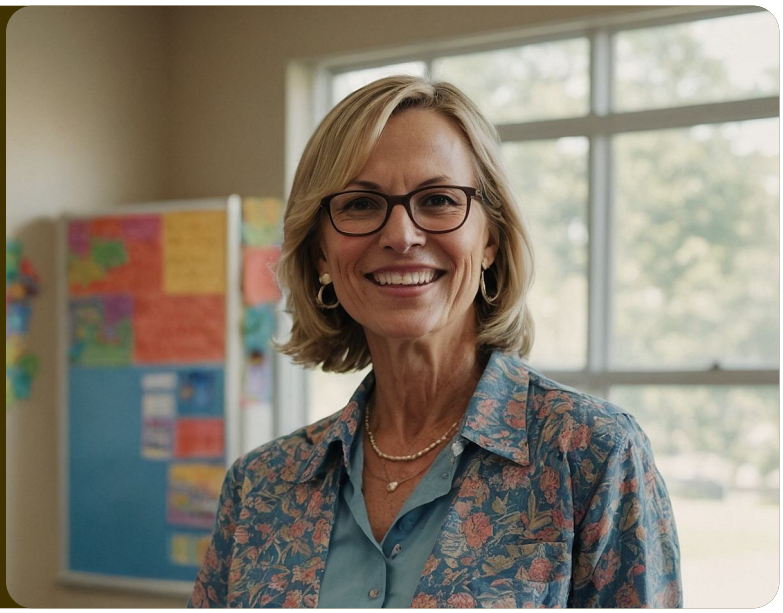
- Too many false hazard reports waste time and reduce system reliability
- Limited assessment tools delay hazard evaluation
- Ineffective alerts distribution challenges ensuring all relevant personnel receive updates
- Time management issues make it hard to balance hazard verification with other on-site duties
- Trouble tracking on reported hazards

Needs:

- Reliable system for real-time communication
- Proper location and visuals of hazards

Needs:

- Reliable system for real-time communication
- Proper location and visuals of hazards



Emily Johnson
Schoolteacher,
Vancouver, CA

Emily Johnson, a **schoolteacher** in an urban area, is worried about the safety of nearby construction sites. She stays informed and values community well-being, using her smartphone for news and social media.

Pain Point

- Regular disturbances and potential hazards from nearby construction sites.
- Difficulty in getting timely and accurate information about activities related to construction sites.
- No reliable platform to raise concerns and receive updates about local construction-related issues.
- Disconnected from the construction site supervisors.

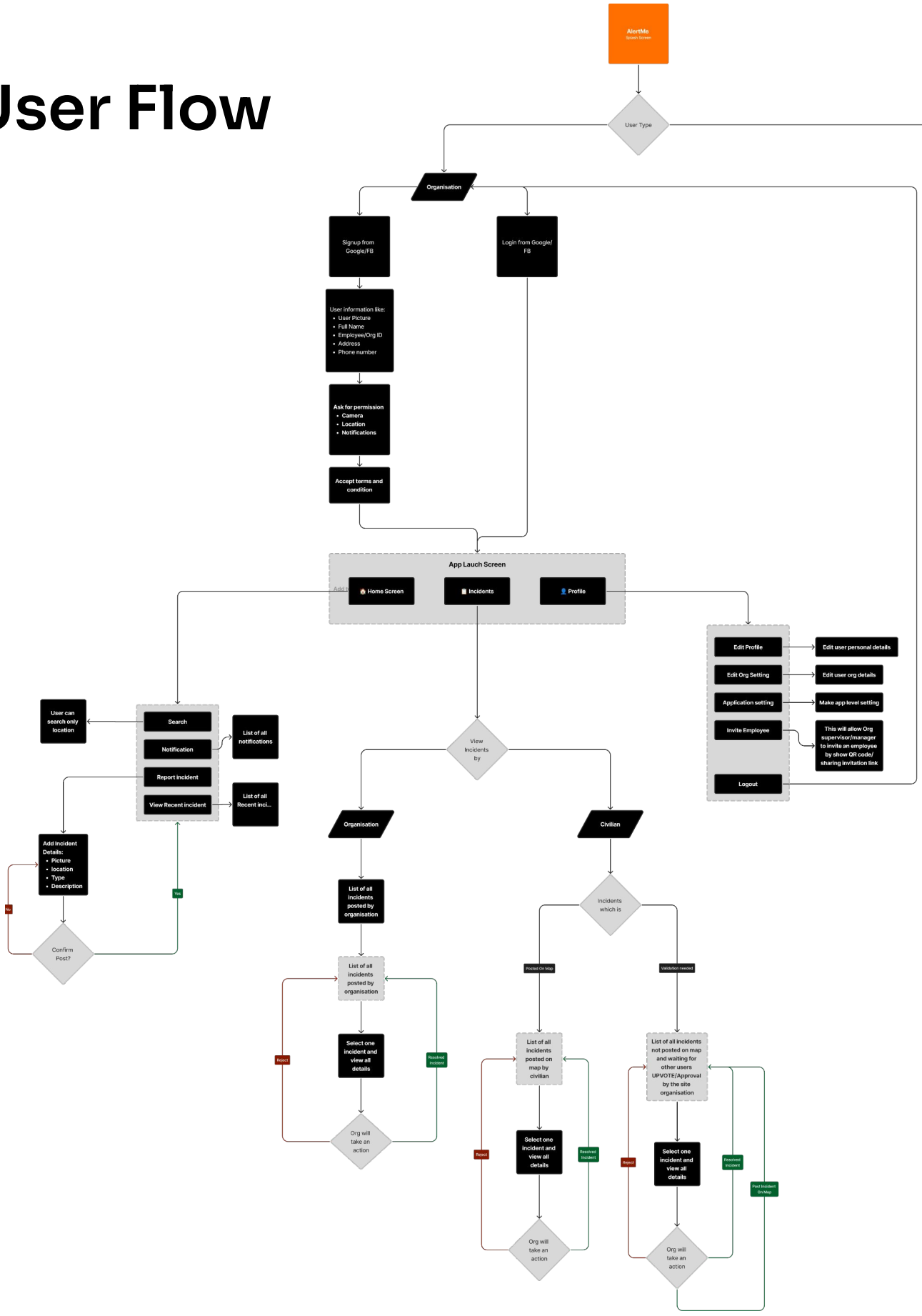
Needs:

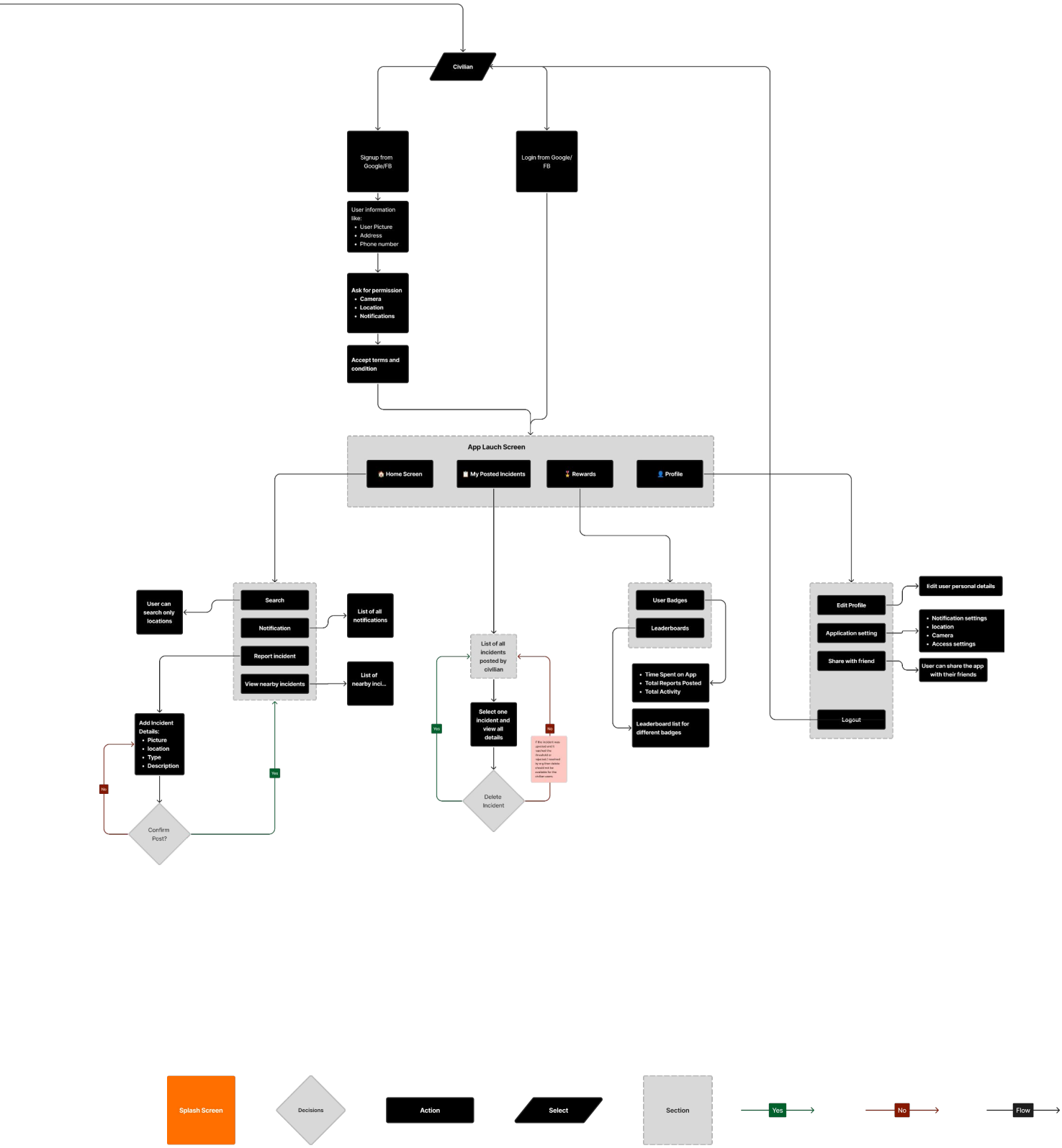
- Real-time hazard alerts for construction sites.
- Easy reporting of hazards and incidents.

Needs:

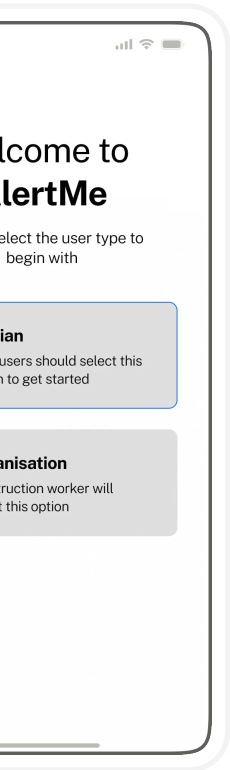
- To stay informed about potential hazards in real-time.
- To efficiently report and manage incidents related to construction site safety.

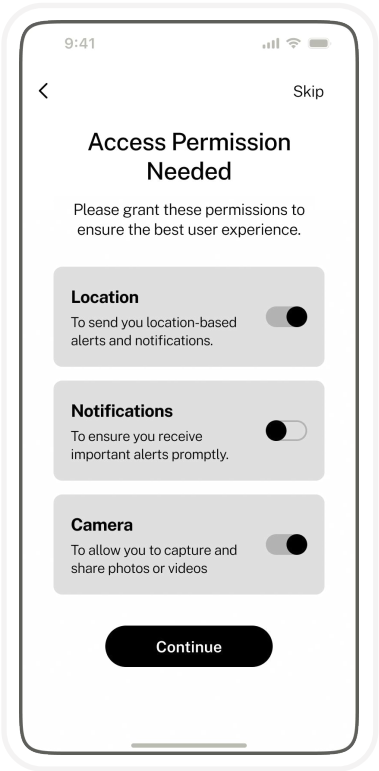
User Flow


AlertMe
Splash Screen
User Type
Organisation
Signup from Google/FB
Login from Google/ FB
User information like:
• User Picture
• Full Name
• Employee/Org ID
• Address
• Phone number
Ask for permission
• Camera
• Location
• Notifications
Accept terms and condition
App Lauch Screen
Home Screen
Incidents
Profile
Edit Profile
Edit user personal details
Edit Org Setting
Edit user org details
Application setting
Make app level setting
Invite Employee
This will allow Org supervisor/manager to invite an employee by show QR code/ sharing invitation link
Logout
User can search only location
Search
Notification
List of all notifications
Report incident
View Recent incident
List of all Recent inci...
Add Incident Details:
• Picture
• location
• Type
• Description
Confirm Post?
View Incidents by
Organisation
List of all incidents posted by organisation
Select one incident and view all details
Org will take an action
Civilian
Incidents which is
Posted On Map
Validation needed
List of all incidents posted on map by civilian
Select one incident and view all details
Org will take an action
List of all incidents not posted on map and waiting for other users UPVOTE/Approval by the site organisation
Select one incident and view all details
Org will take an action


Civilian
Signup from Google/FB
Login from Google/ FB
User information like:
• User Picture
• Address
• Phone number
Ask for permission
• Camera
• Location
• Notifications
Accept terms and condition
App Lauch Screen
Home Screen
My Posted Incidents
Rewards
Profile
User can search only locations
Search
Notification
Report incident
View nearby incidents
List of all notifications
List of nearby inci...
Add Incident Details:
• Picture
• location
• Type
• Description
Confirm Post?
List of all incidents posted by civilian
Select one incident and view all details
Delete Incident
User Badges
Leaderboards
• Time Spent on App
• Total Reports Posted
• Total Activity
Leaderboard list for different badges
Edit Profile
Application setting
Share with friend
Logout
Edit user personal details
• Notification settings
• location
• Camera
• Access settings
User can share the app with their friends
Splash Screen
Decisions
Action
Select
Section
Yes
No
Flow

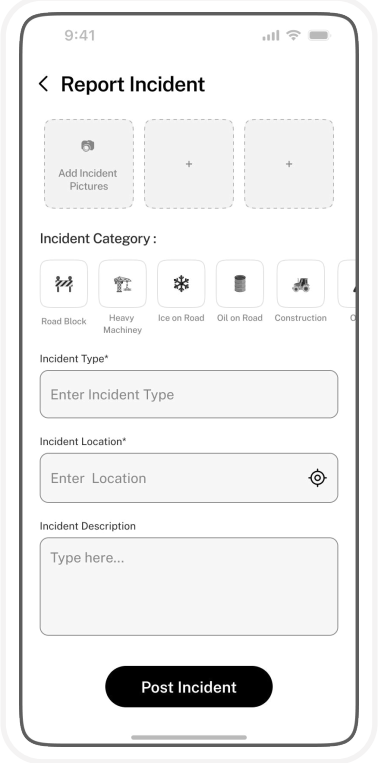
Wireframes

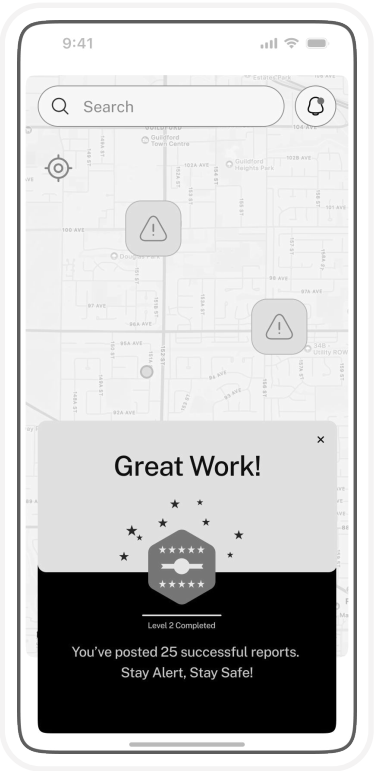

lcome to
lertMe
elect the user type to
begin with
ian
users should select this
to get started
anisation
ruction worker will
this option

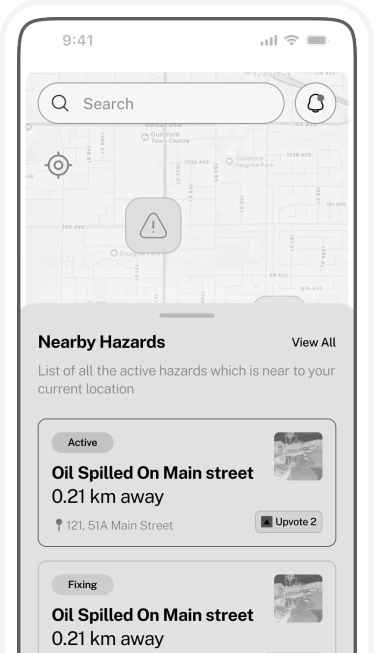

9:41
Skip
Access Permission Needed
Please grant these permissions to ensure the best user experience.
Location
To send you location-based alerts and notifications.
Notifications
To ensure you receive important alerts promptly.
Camera
To allow you to capture and share photos or videos
Continue

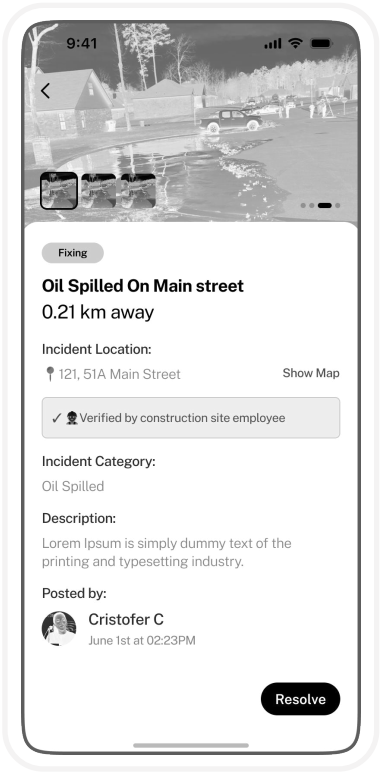
9:41
Search
Nearby Hazards
Report Incident

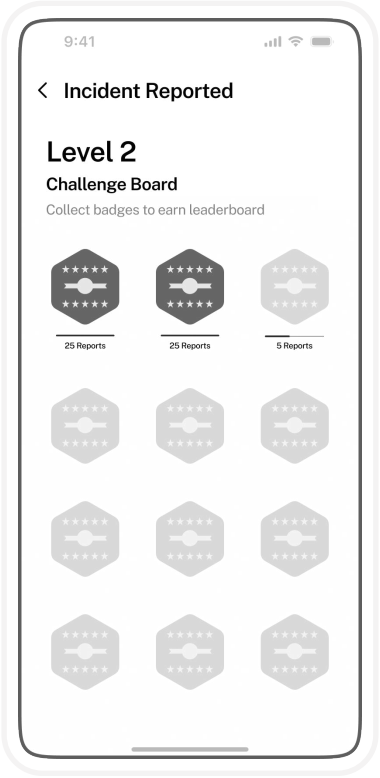
9:41
Search
New 13 Hazards
Near-by you
Nearby Hazards
Report Incident
Home
My Incidents
Rewards
Profile


9:41
Report Incident
Add Incident Pictures
Incident Category :
Road Block
Heavy Machiney
Ice on Road
Oil on Road
Construction
Incident Type*
Enter Incident Type
Incident Location*
Enter Location
Incident Description
Type here...
Post Incident

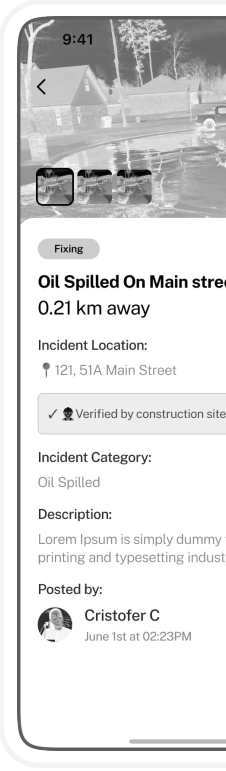

9:41
Search
Great Work!
Level 2 Completed
You've posted 25 successful reports.
Stay Alert, Stay Safe!


9:41
Search
Nearby Hazards
View All
List of all the active hazards which is near to your current location
Active
Oil Spilled On Main street
0.21 km away
121, 51A Main Street
Upvote 2
Fixing
Oil Spilled On Main street
0.21 km away

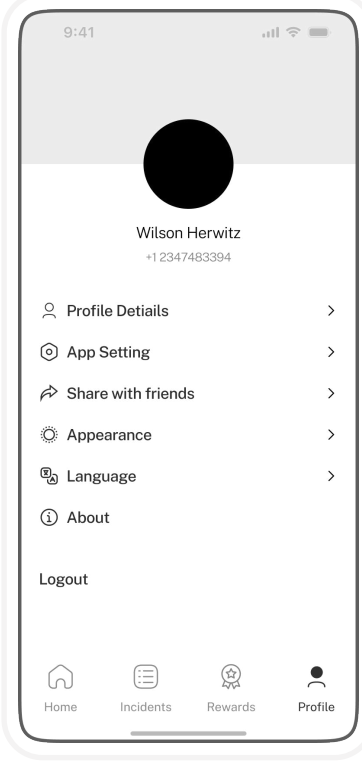

9:41
Fixing
Oil Spilled On Main street
0.21 km away
Incident Location:
121, 51A Main Street
Show Map
Verified by construction site employee
Incident Category:
Oil Spilled
Description:
Lorem Ipsum is simply dummy text of the printing and typesetting industry.
Posted by:
Cristofer C
June 1st at 02:23PM
Resolve

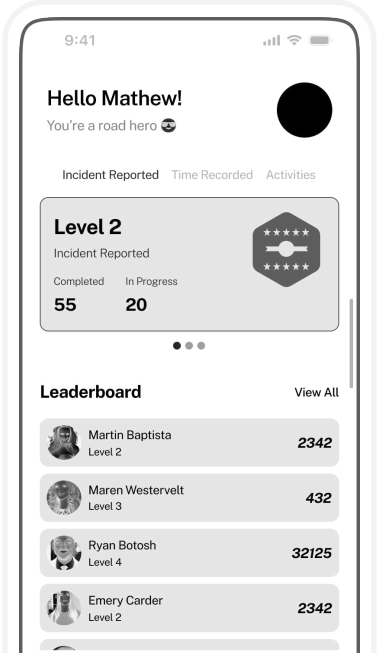

9:41
Incident Reported
Level 2
Challenge Board
Collect badges to earn leaderboard
25 Reports
25 Reports
5 Reports

9:41
Search
New 13 Hazards
Near-by you
Nearby Hazards
Report Incident
Home
My Incidents
Rewards
Profile


9:41
Fixing
Oil Spilled On Main stre
0.21 km away
Incident Location:
121, 51A Main Street
Verified by construction site
Incident Category:
Oil Spilled
Description:
Lorem Ipsum is simply dummy
printing and typesetting indust
Posted by:
Cristofer C
June 1st at 02:23PM

Active
Road Construction
0.21 km away
121, 51A Main Street
June 1st 2024, 02:43 PM
4 Upvote
Nearby Hazards
Report Incident
Home
My Incidents
Rewards
Profile


9:41
Wilson Herwitz
+1 2347483394
Profile Detiails
App Setting
Share with friends
Appearance
Language
About
Logout
Home
Incidents
Rewards
Profile

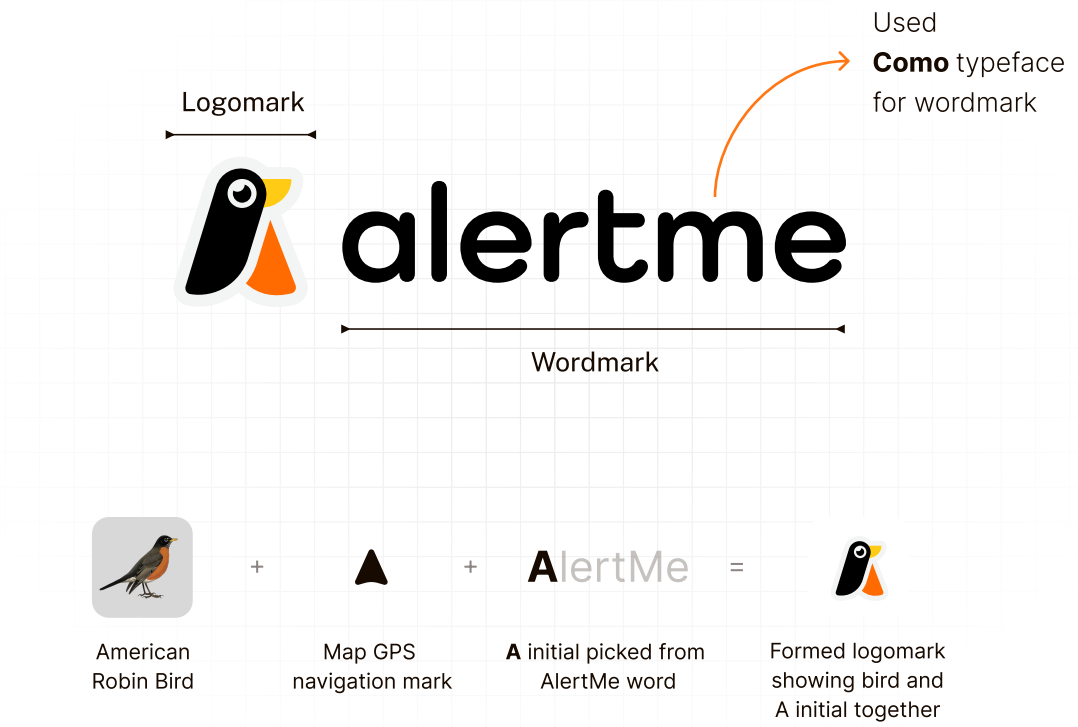

9:41
Hello Mathew!
You're a road hero
Incident Reported
Time Recorded
Activities
Level 2
Incident Reported
Completed
55
In Progress
20
Leaderboard
View All
Martin Baptista
Level 2
2342
Maren Westervelt
Level 3
432
Ryan Botosh
Level 4
32125
Emery Carder
Level 2
2342

9:41

Get awesome rewards for sharing real incident reports!

Branding

Brand Logo



Logo Concept

Our "AlertMe" logo creatively combines a robin bird, a GPS icon, and the app's initials. The robin symbolizes alertness, representing our focus on location tracking and hazard reporting.

Brand Adjectives:

- Trustworthy
- Alert
- Collaborative

Typography

AlertMe typography components include the heading component, which gives you the ability to create headings for your app with different sizes and semantics from h1 to h6, and the text component, which supports paragraphs and other formatting options.

4xl **Hi there!**

3xl **Hi there!**

2xl **Hi there!**

xl Hi there!

lg Hi there!

md Hi there!

sm Hi there!

Public Sans

Modern, Clean & Versatile

Variables Used:

Light

Regular

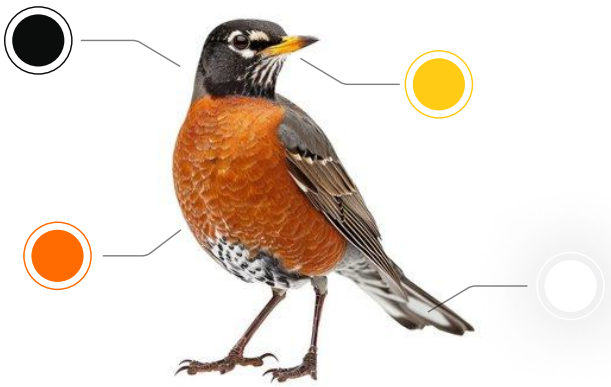
Semibold

Bold

Aa

Color palette

We used colors inspired by the American robin bird: Pumpkin Orange for visibility and alertness, and Sunflower Yellow for warmth and energy. These colors highlight our app's focus on safety and proactive communication, creating a cohesive and impactful brand identity.



Primary Colours

Pumpkin

Sunflower

Black Olive

Milk

Secondary Colours

Error

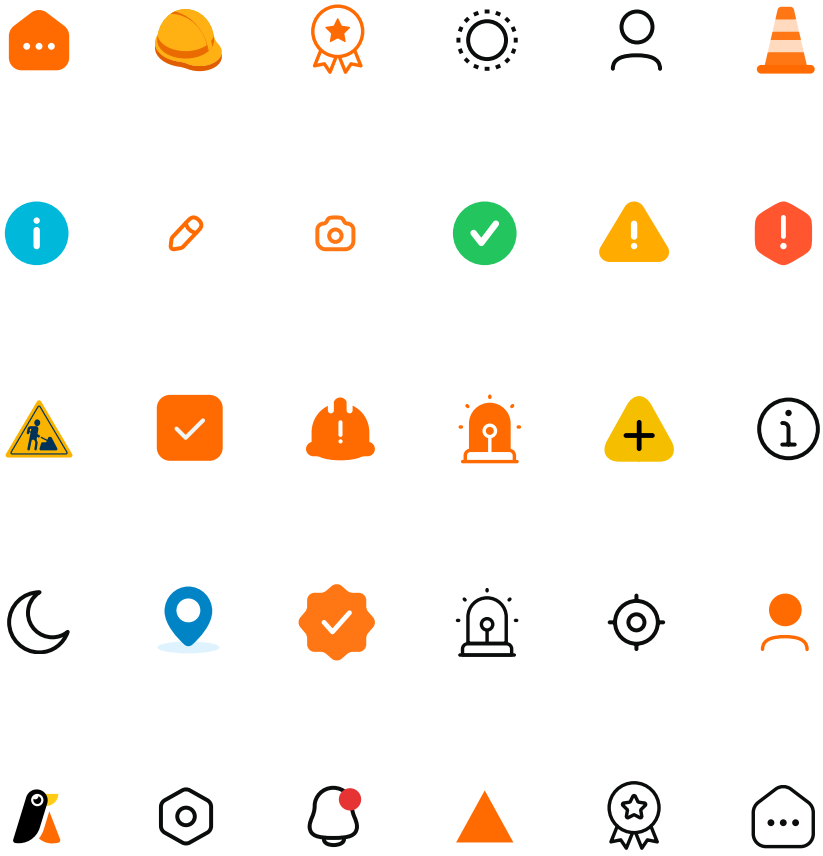
Info

Success

Warning

Iconography

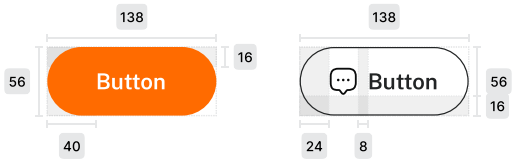
Use our versatile icons repository for easy navigation and clear communication. Customize and use them seamlessly across different platforms.



UI Components

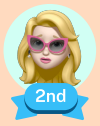
I'm Civilian Posts

Community civilians can choose this option to proceed.



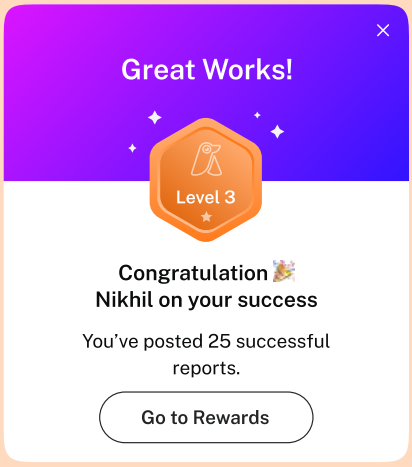
Ann Dokidis	Level 16	18948
Dulce Carder	Level 15	15473
Craig Septimus	Level 14	14837
Ann Dokidis	Level 14	14236
Dulce Carder	Level 13	13343
Craig Septimus	Level 12	13001
Ann Dokidis	Level 12	11048

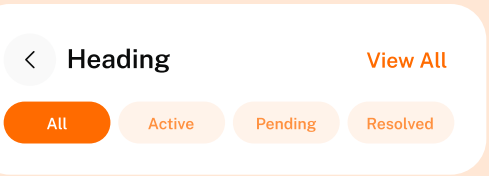
Craig Sep.
Level 14

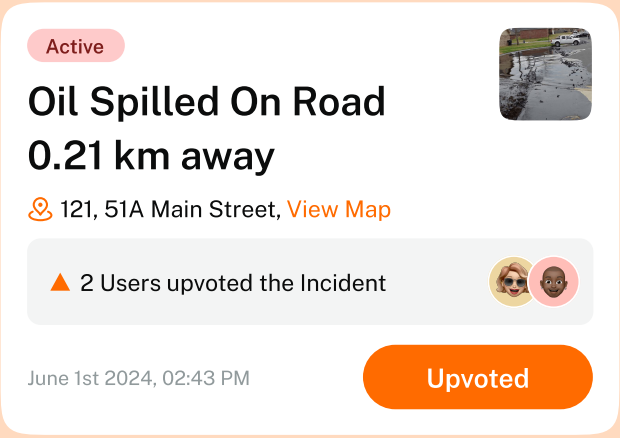


Craig Sep.
Level 13

Craig Sep.
Level 12







Active

Oil Spilled On Road
0.21 km away

Incident Location

121, 51A Main Street, View Map

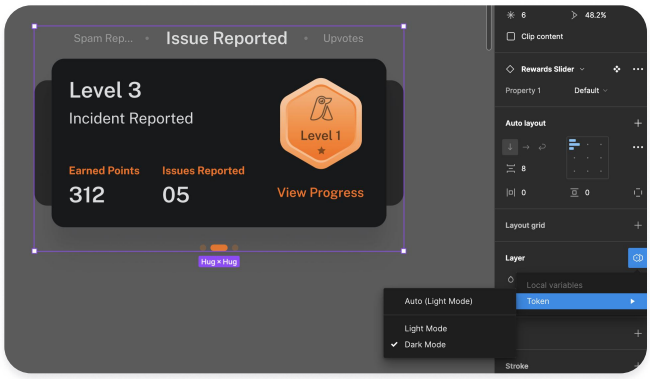
Incident Type

Oil Spilled On Road

Description

Be careful there is a oil spilled just next to the construction site zone.

Components are built with Figma local variables for easy implementation and consistent design across the team.



Level 3

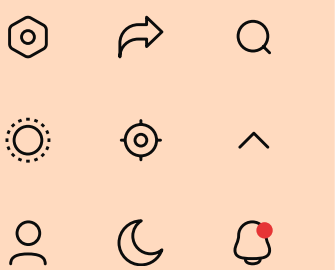
Incident Reported

Points
300

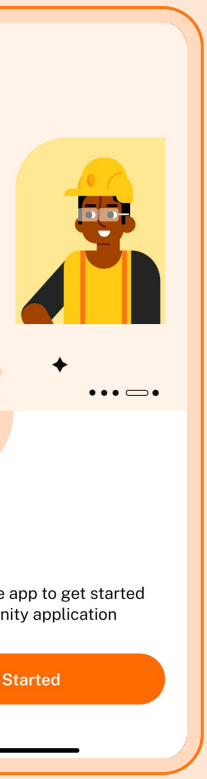
Reported
10

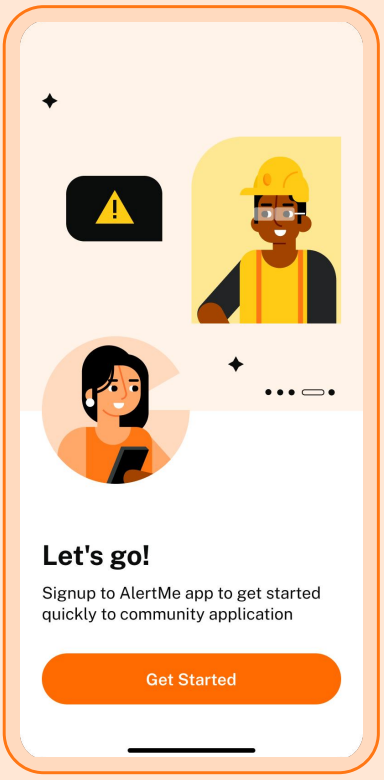
Level 3

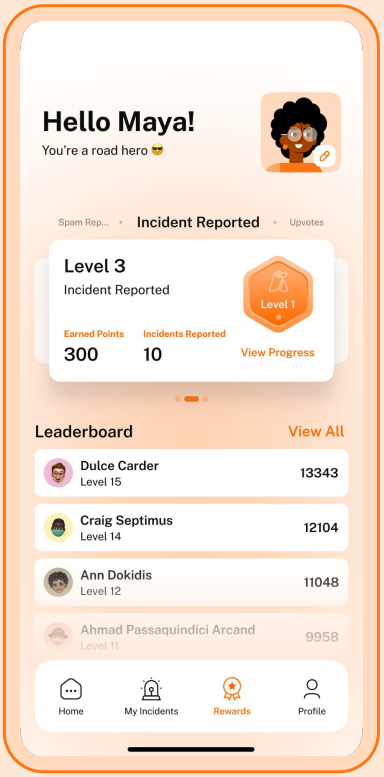
View Progress

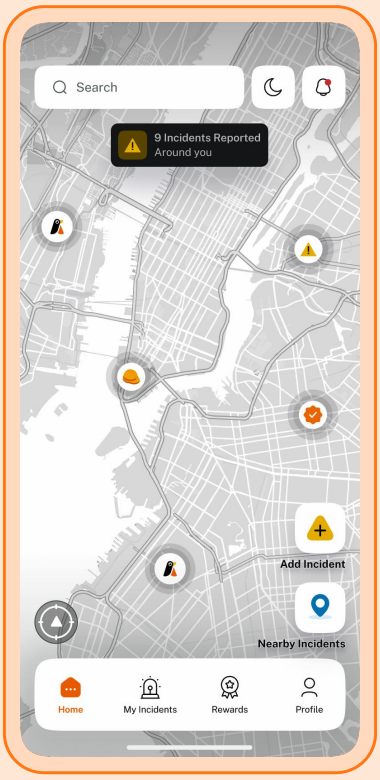


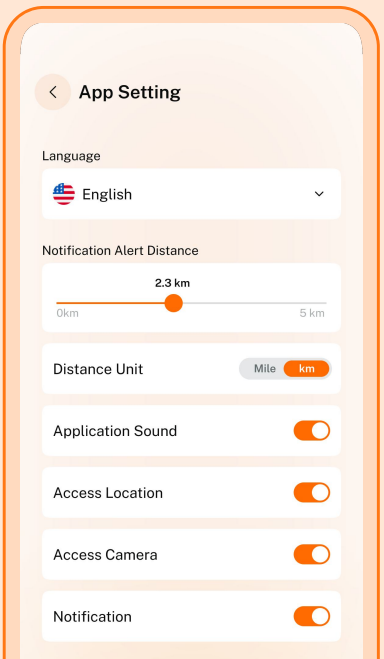
Mockups

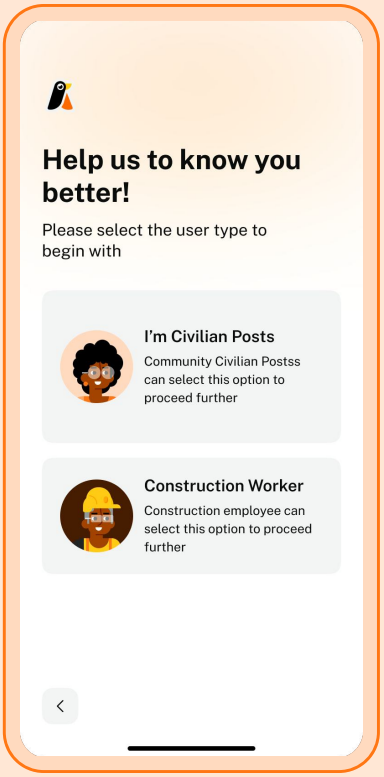

e app to get started
nity application
Started

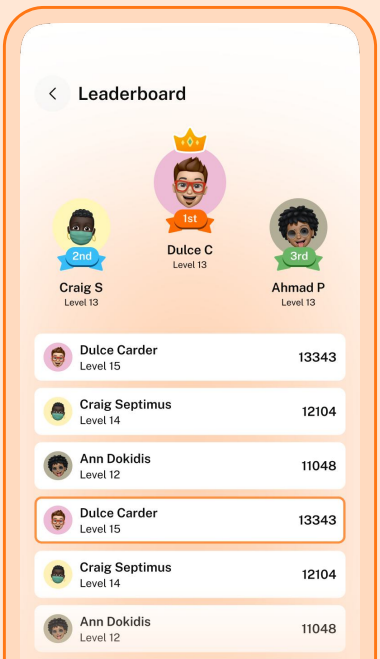

Let's go!
Signup to AlertMe app to get started quickly to community application
Get Started

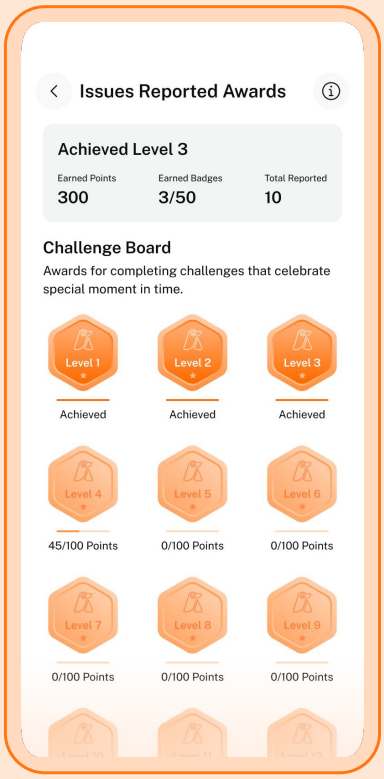

Hello Maya!
You're a road hero
Spam Rep...
Incident Reported
Upvotes
Level 3
Incident Reported
Level 1
Earned Points
300
Incidents Reported
10
View Progress
Leaderboard
View All
Dulce Carder
Level 15
13343
Craig Septimus
Level 14
12104
Ann Dokidis
Level 12
11048
Ahmad Passaquindici Arcand
Level 11
9958
Home
My Incidents
Rewards
Profile

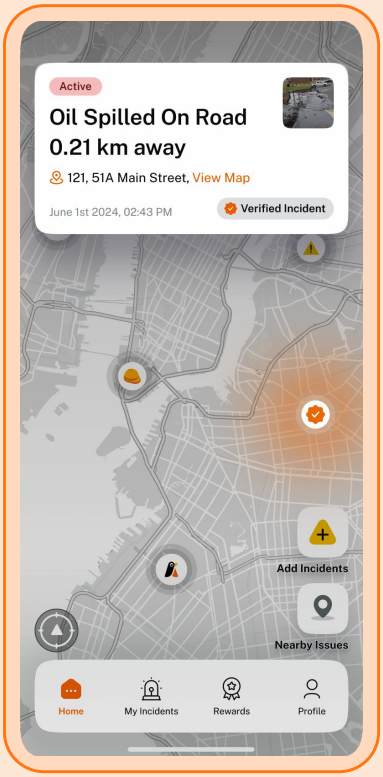

Search
9 Incidents Reported
Around you
Add Incident
Nearby Incidents
Home
My Incidents
Rewards
Profile

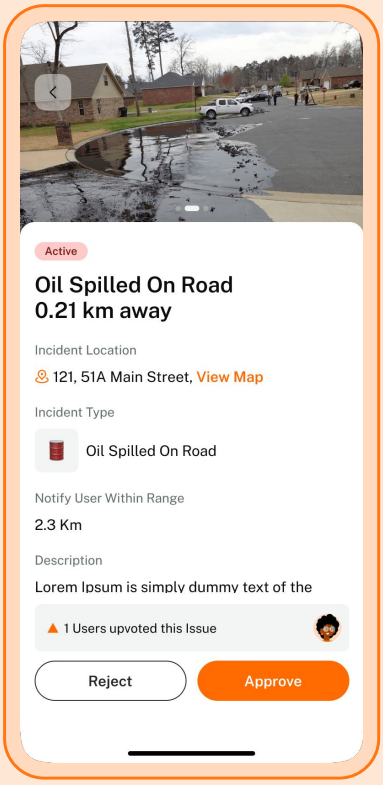

App Setting
Language
English
Notification Alert Distance
2.3 km
0km
5 km
Distance Unit
Mile
km
Application Sound
Access Location
Access Camera
Notification

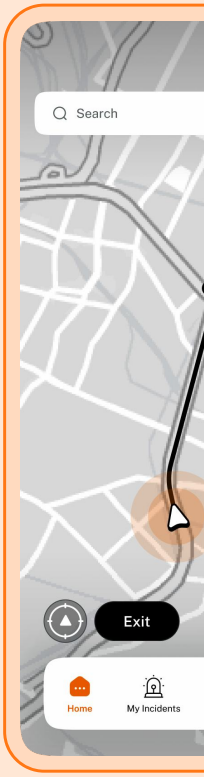

Help us to know you better!
Please select the user type to begin with
I'm Civilian Posts
Community Civilian Postss can select this option to proceed further
Construction Worker
Construction employee can select this option to proceed further

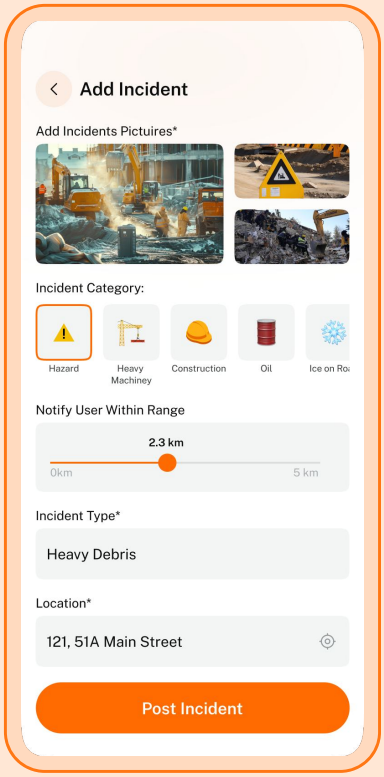

Leaderboard
2nd
Craig S
Level 13
1st
Dulce C
Level 13
3rd
Ahmad P
Level 13
Dulce Carder
Level 15
13343
Craig Septimus
Level 14
12104
Ann Dokidis
Level 12
11048
Dulce Carder
Level 15
13343
Craig Septimus
Level 14
12104
Ann Dokidis
Level 12
11048

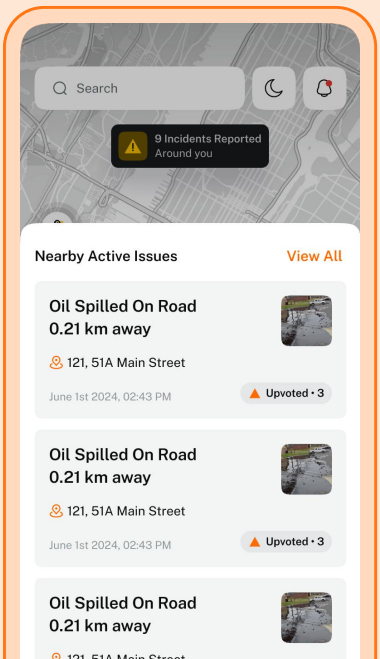

Issues Reported Awards
Achieved Level 3
Earned Points
300
Earned Badges
3/50
Total Reported
10
Challenge Board
Awards for completing challenges that celebrate special moment in time.
Level 1
Achieved
Level 2
Achieved
Level 3
Achieved
Level 4
45/100 Points
Level 5
0/100 Points
Level 6
0/100 Points
Level 7
0/100 Points
Level 8
0/100 Points
Level 9
0/100 Points

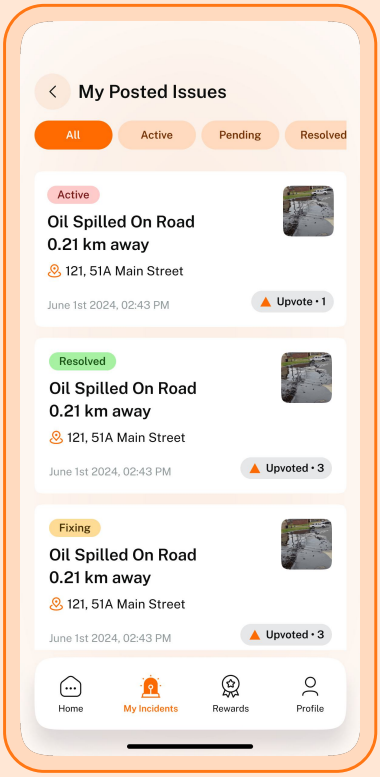

Active
Oil Spilled On Road
0.21 km away
121, 51A Main Street, View Map
June 1st 2024, 02:43 PM
Verified Incident
Add Incidents
Nearby Issues
Home
My Incidents
Rewards
Profile

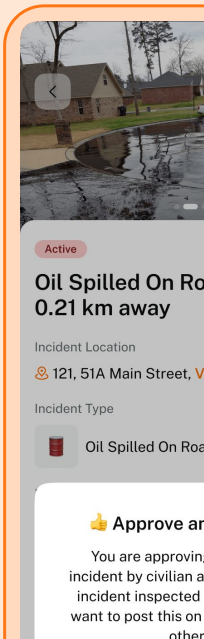

Active
Oil Spilled On Road
0.21 km away
Incident Location
121, 51A Main Street, View Map
Incident Type
Oil Spilled On Road
Notify User Within Range
2.3 Km
Description
Lorem Ipsum is simply dummy text of the
1 Users upvoted this Issue
Reject
Approve


Search
Exit
Home
My Incidents

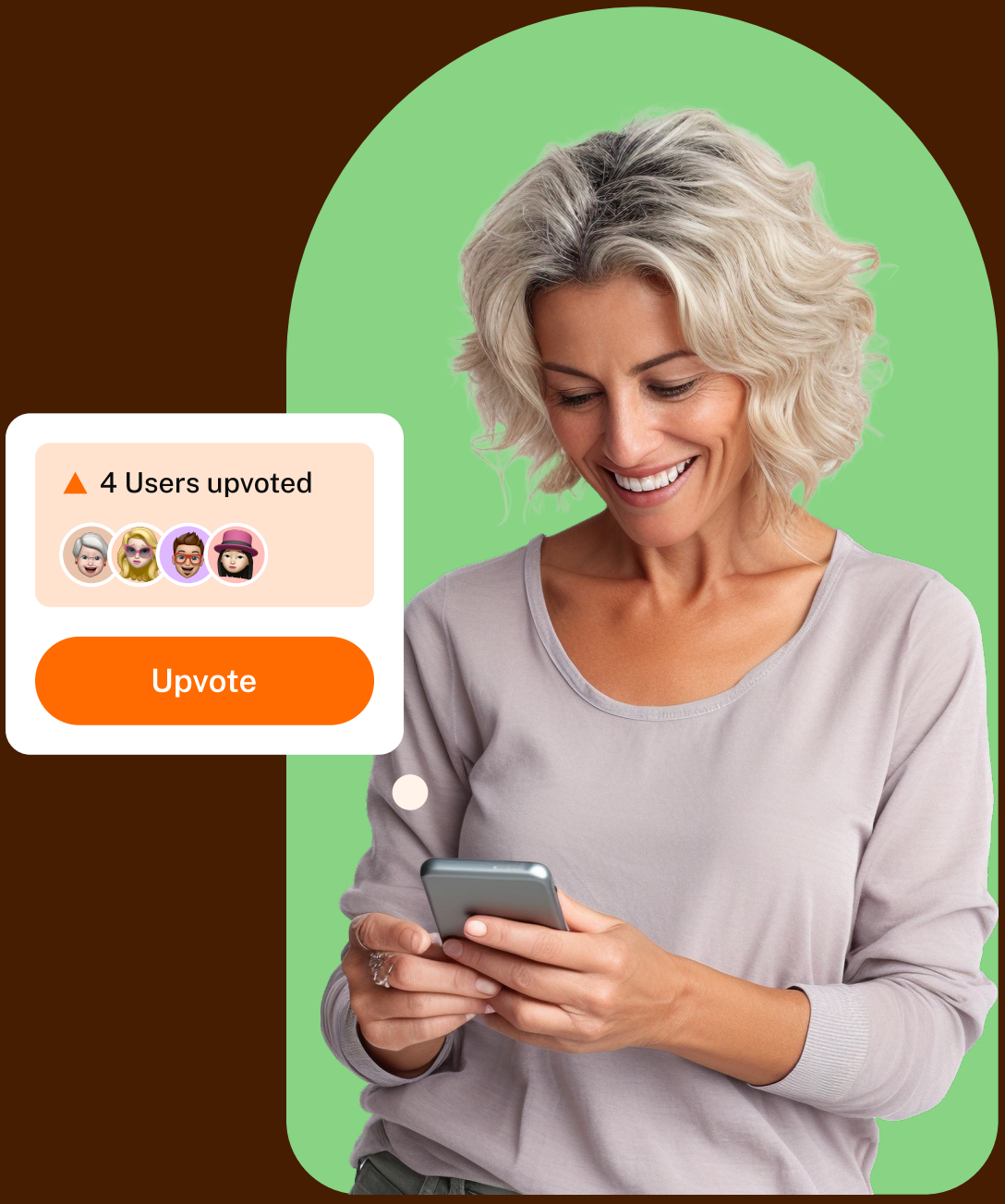

Add Incident
Add Incidents Pictuires*
Incident Category:
Hazard
Heavy Machiney
Construction
Oil
Notify User Within Range
2.3 km
0km
5 km
Incident Type*
Heavy Debris
Location*
121, 51A Main Street
Post Incident


Search
9 Incidents Reported
Around you
Nearby Active Issues
View All
Oil Spilled On Road
0.21 km away
121, 51A Main Street
June 1st 2024, 02:43 PM
Upvoted • 3
Oil Spilled On Road
0.21 km away
121, 51A Main Street
June 1st 2024, 02:43 PM
Upvoted • 3
Oil Spilled On Road
0.21 km away


My Posted Issues
All
Active
Pending
Resolved
Active
Oil Spilled On Road
0.21 km away
121, 51A Main Street
June 1st 2024, 02:43 PM
Upvote • 1
Resolved
Oil Spilled On Road
0.21 km away
121, 51A Main Street
June 1st 2024, 02:43 PM
Upvoted • 3
Fixing
Oil Spilled On Road
0.21 km away
121, 51A Main Street
June 1st 2024, 02:43 PM
Upvoted • 3
Home
My Incidents
Rewards
Profile

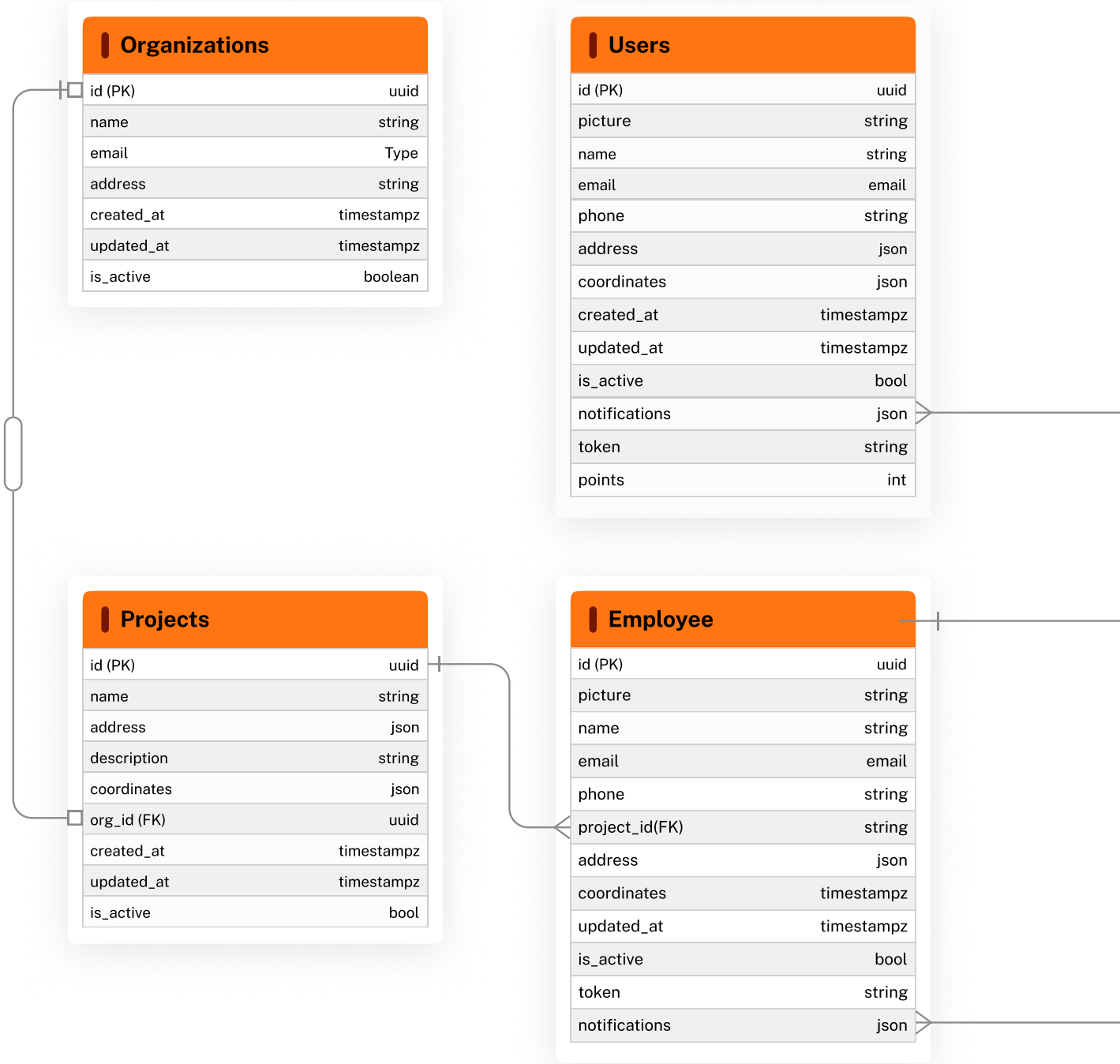

Active
Oil Spilled On Ro
0.21 km away
Incident Location
121, 51A Main Street,
Incident Type
Oil Spilled On Roa
Approve ar
You are approvin
incident by civilian a
incident inspected
want to post this on

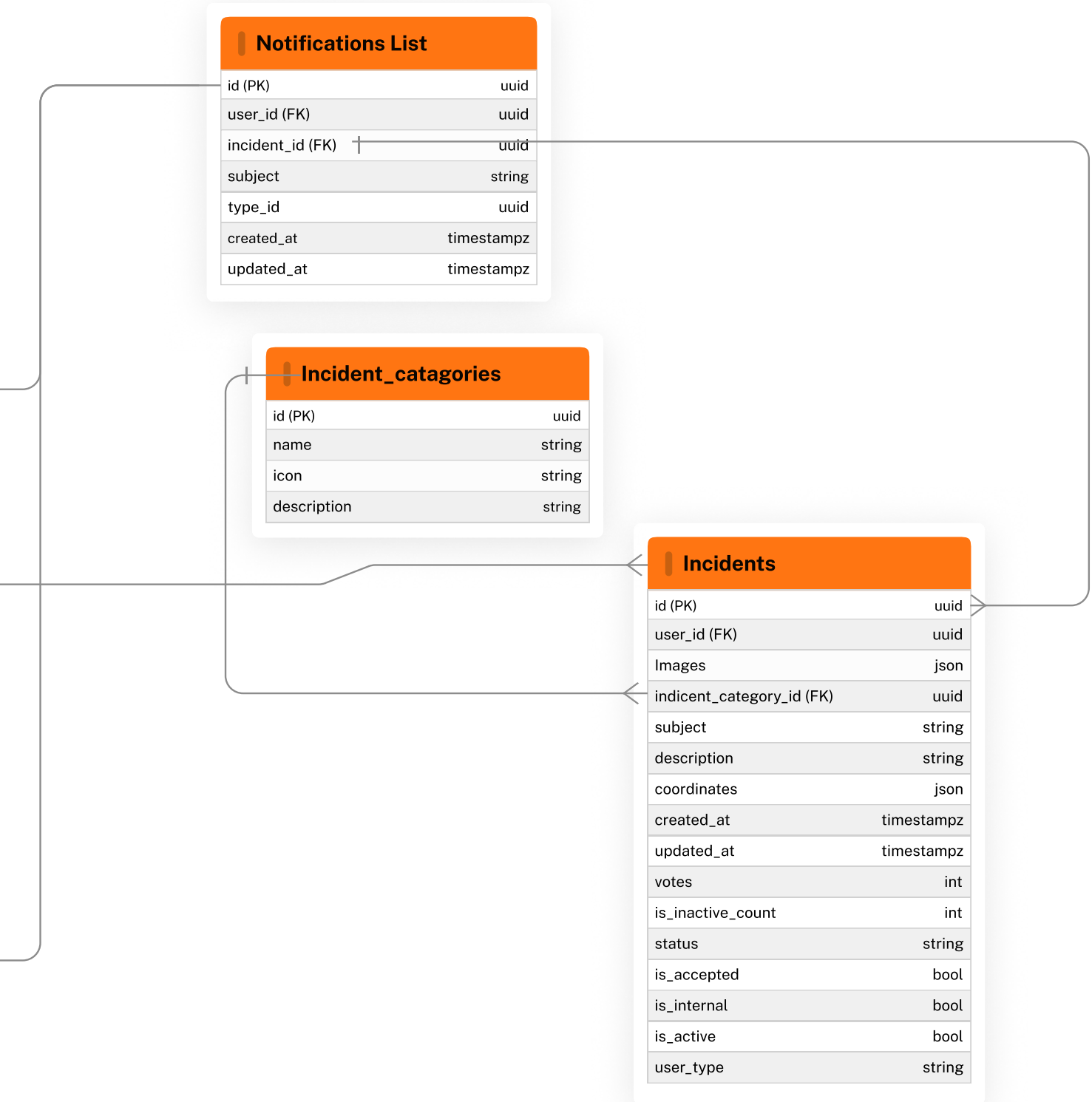
Users can upvote other users' valid reports and help the AlertMe community to grow



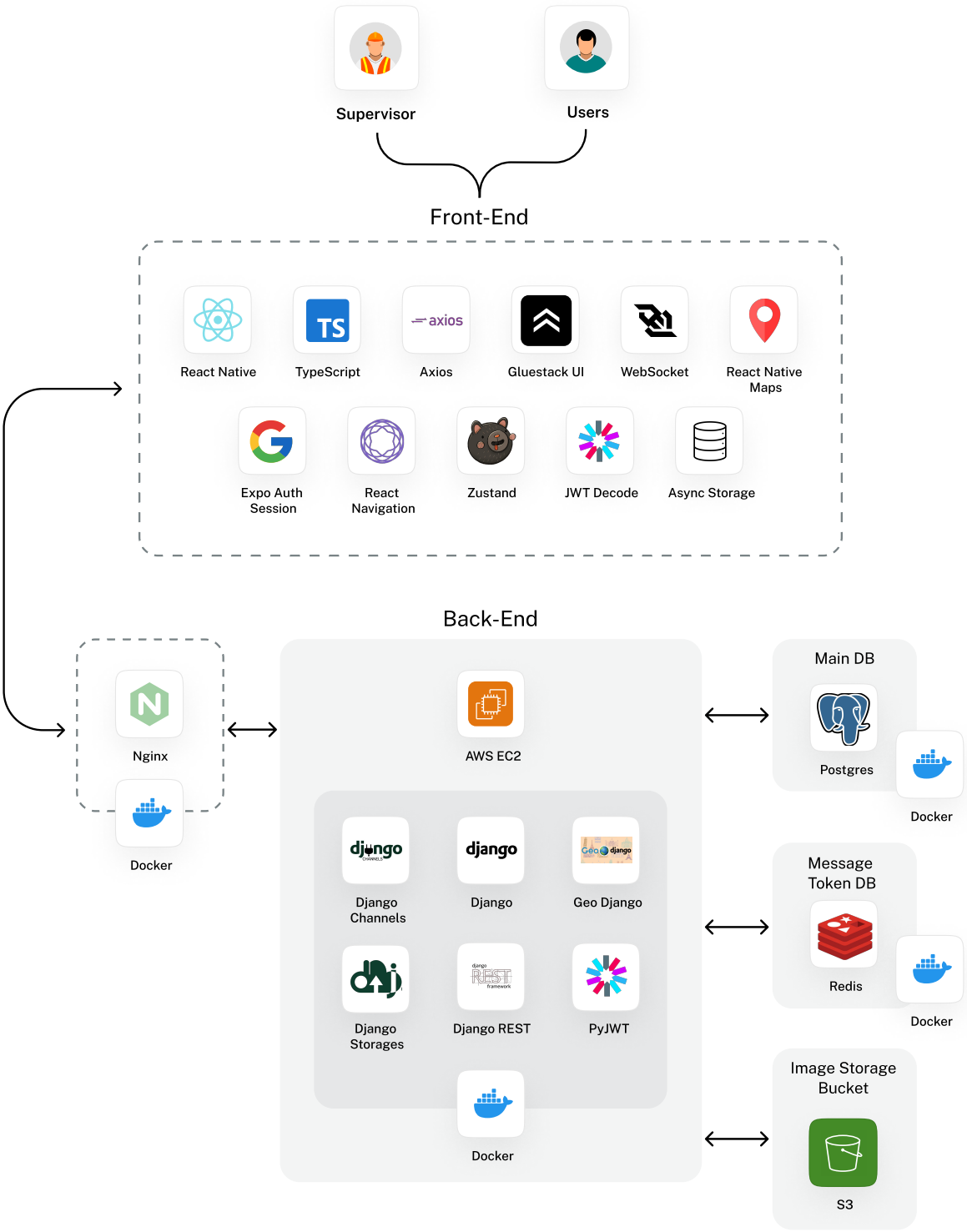
Technologies

Data Model

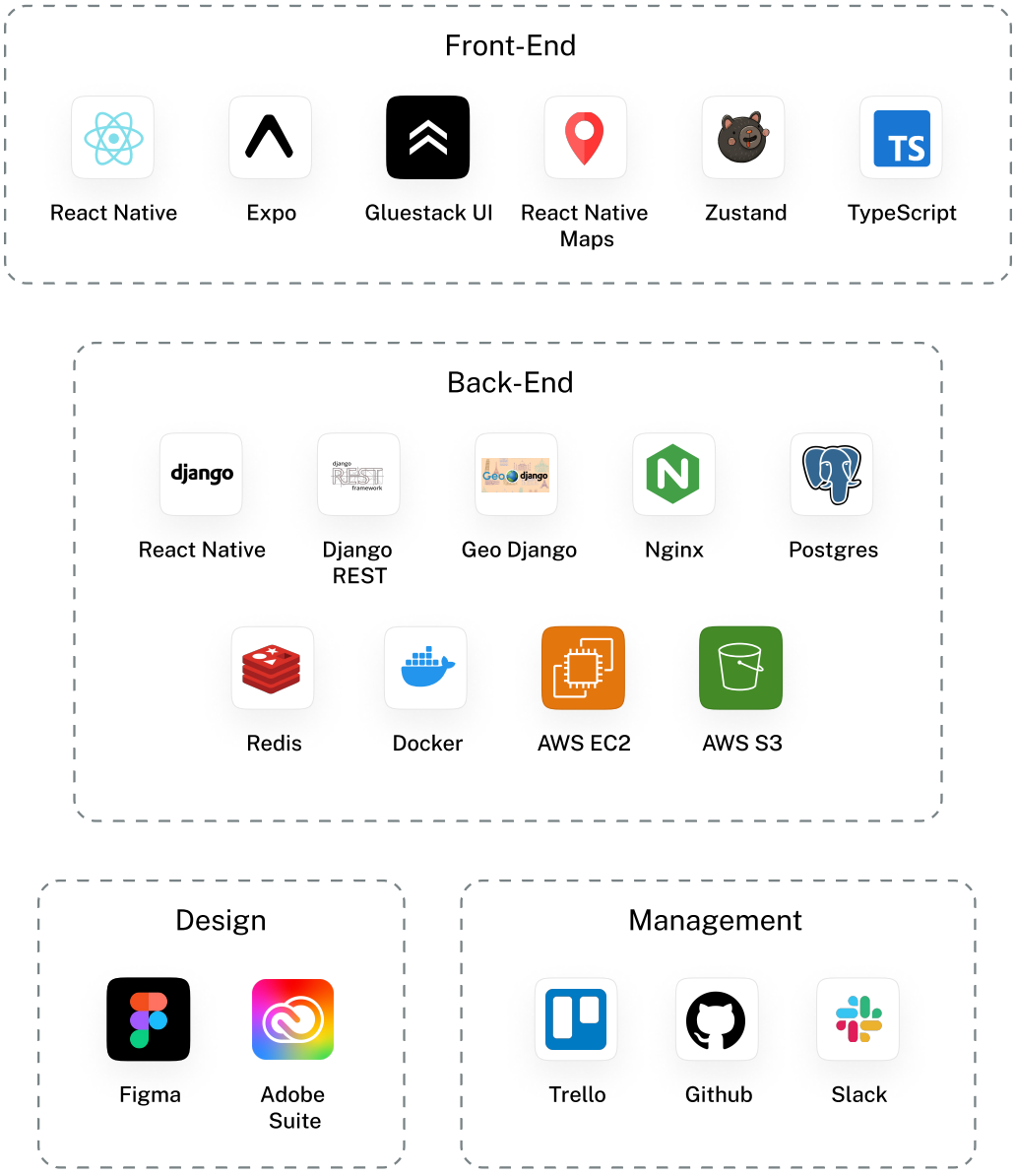

Organizations
id (PK) uuid
name string
email Type
address string
created_at timestampz
updated_at timestampz
is_active boolean
Users
id (PK) uuid
picture string
name string
email email
phone string
address json
coordinates json
created_at timestampz
updated_at timestampz
is_active bool
notifications json
token string
points int
Projects
id (PK) uuid
name string
address json
description string
coordinates json
org_id (FK) uuid
created_at timestampz
updated_at timestampz
is_active bool
Employee
id (PK) uuid
picture string
name string
email email
phone string
project_id(FK) string
address json
coordinates timestampz
updated_at timestampz
is_active bool
token string
notifications json


Notifications List
id (PK) uuid
user_id (FK) uuid
incident_id (FK) uuid
subject string
type_id uuid
created_at timestampz
updated_at timestampz
Incident_catagories
id (PK) uuid
name string
icon string
description string
Incidents
id (PK) uuid
user_id (FK) uuid
Images json
indicent_category_id (FK) uuid
subject string
description string
coordinates json
created_at timestampz
updated_at timestampz
votes int
is_inactive_count int
status string
is_accepted bool
is_internal bool
is_active bool
user_type string

System Architecture



Tech Stack


Front-End
React Native
Expo
Gluestack UI
React Native Maps
Zustand
TypeScript
Back-End
React Native
Django REST
Geo Django
Nginx
Postgres
Redis
Docker
AWS EC2
AWS S3
Design
Figma
Adobe Suite
Management
Trello
Github
Slack

Future Features

Smart-Device Integration

Bypassers, and vehicle riders can report safety incident

AI-Powered Analytics

Use AI to identify patterns in similar reports, helping users avoid high-risk areas.

3rd Party Collaborations

Partner with the city to promote AlertMe at construction sites and collaborate with ride-sharing services.

Resources

Meet the team

Our team excels in full-stack development, Product designing, research, branding, graphic design, , and customer service. This combination of skills allows us to create innovative, user-focused products efficiently.

Sandeep Guggilla

Project Manager / Full Stack Developer

Experienced DevOps Engineer with expertise in CI/CD pipelines and DevOps toolchains, augmented skills through Langara's WMDD course, now proficient in full-stack development.

sandeep-guggilla

Bryan Caldeira

Lead Dev / Full Stack Developer

Full Stack Developer with expertise in JavaScript, Python, Django, and the MERN stack, as well as proficiency in SQL. I can bring your visionary ideas to life.

bryan-caldeira

Nikhil Kanda

Lead Product Designer

Product designer adept at blending creativity and technical skills to deliver comprehensive solutions, eager to tackle diverse design challenges and bring innovative ideas to life.

nikhil-kanda

Nandan Nishad

Full Stack Developer

Versatile developer, passionate about crafting seamless digital experiences and ensuring flawless functionality. I love coding, diving into sci-fi, solving puzzles, and relaxing with a good book.

nandan-nishad

Simrandeep Kaur

Full Stack Developer

I create dynamic web apps with ReactJS, Redux, and Node.js, and am skilled in HTML, CSS, and JavaScript. I focus on high-quality user experiences and keeping up with industry trends.

simrandeepkaurd

Karthik Rhaja

Full Stack Developer

Dynamic full stack developer and automation tester passionate about crafting seamless digital experiences and ensuring flawless functionality through cutting-edge automated testing.

karthik-santhi-sivakumar

Palak Goyal

Product Designer

Product designer with a knack of blending natural elements into her designs, crafting user-friendly and innovative products.

palak-goyal

Rushik Patel

Product Designer

A dedicated UI/UX designer with an engineering background committed to perfecting seamless user experiences in the tech industry.

rushikpatel20

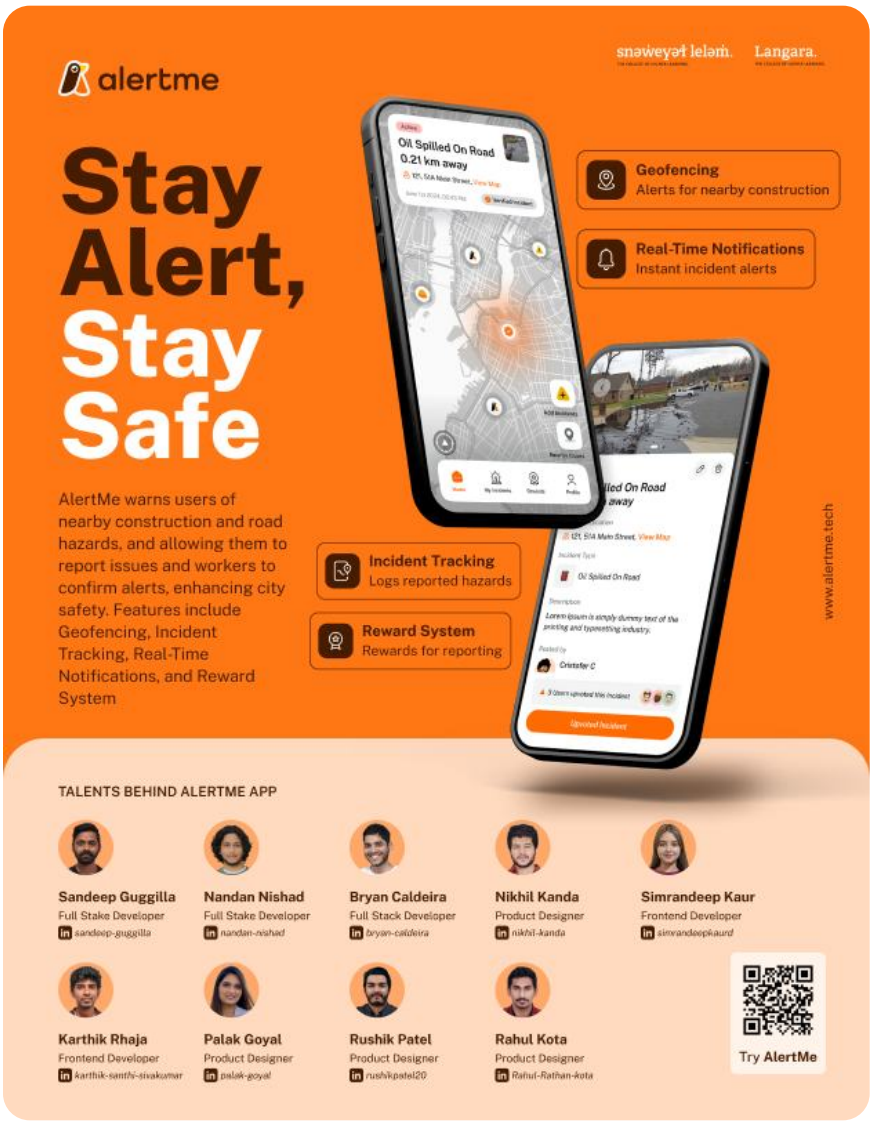
Rahul Kota

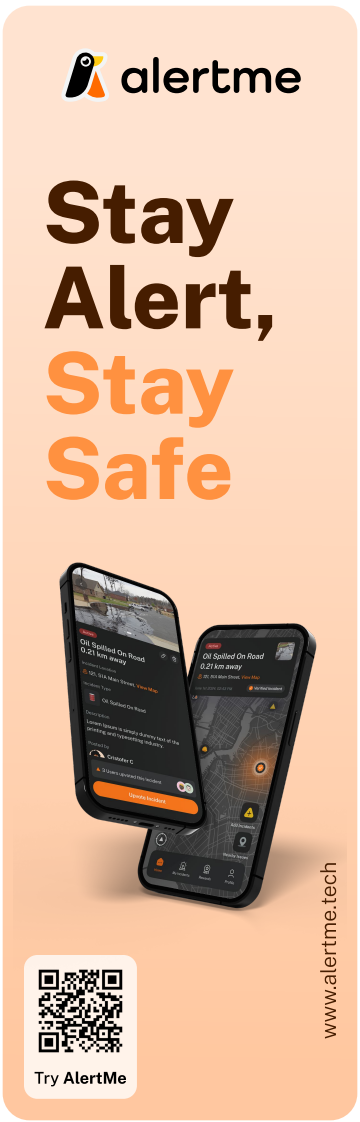
Product Designer

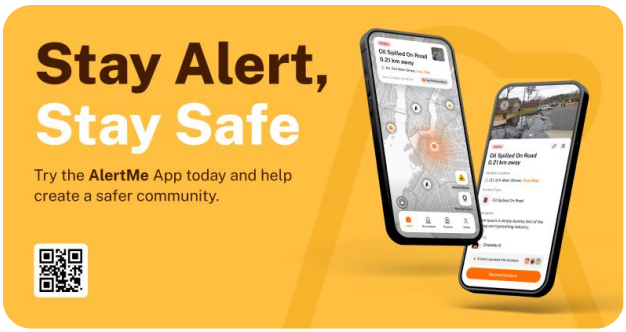
Product designer with an engineering background, skilled in user communication. I blend creativity, logic, and empathy to enhance engagement and deliver intuitive, user-centered designs.

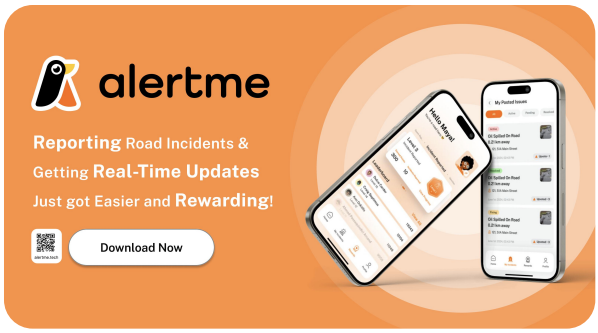
rahul-rathan-kota

Marketing Assets









References

Inner Left Cover:
https://www.freepik.com/premium-photo/asian-technician-civil-engineer-talk-with-team-by-walkie-talkie-about-blueprint-construction-site_23644495.htm

Problem & Real-Life Example:
https://www.freepik.com/premium-photo

Design & Development Pictures:
https://www.freepik.com/premium-photo

Persona Pictures:
1. *Worker: https://www.freepik.com/premium-ai-image/construction-site_260833840.htm*
2. *Schoolteacher: https://www.freepik.com/author/umairsheikh*

Background Research:
https://www.freepik.com/premium-ai-image/urban-road-construction-building-developments-with-busy-workers-machinery_261331295.htm

Section Separators:
1. *https://www.freepik.com/premium-psd/psd-asian-middle-age-man-who-uses-smart-phone-while-standing-front-yellow-wall-png_208222311.htm*
2. *https://www.freepik.com/premium-psd/isolated-connected-woman-with-curly-hair-holding-cell-phone-front-white-wall-with-white-button-pocket-visible-background-png-psd_184349319.htm*
3. *https://www.freepik.com/premium-psd/engineers-smartphone-transparent-background-png-psd_221259441.htm*
4. *https://www.freepik.com/premium-psd/cheerful-smiling-young-asian-female-tourist-straw-hat-sunglasses-looking-her-phone-scr_199456570.htm*
5. *https://www.freepik.com/premium-psd/attractive-woman-using-smart-phone-isolated-transparent-background-psd-file-format_204904685.htm*
6. *https://www.freepik.com/premium-psd/man-brown-jacket-is-looking-phone_255488696.htm*

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THE COLLEGE OF HIGHER LEARNING.

Langara.
THE COLLEGE OF HIGHER LEARNING.

Special thanks to our instructors and advisors

Tyler Higgs • Lu Yu • Jeffrey Ellis • Reza Abbasi • Amandeep singh
Denis Bellette • Valentina Abanina

alertme

Thank you for considering AlertMe! We're excited about the opportunity to collaborate and are confident our solution will meet your needs. We look forward to discussing how AlertMe can benefit you.

Scan to know more

Connect with us

www.alertme.tech