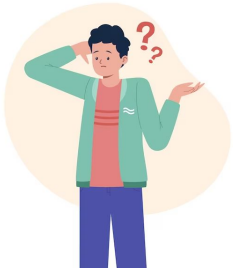

# Guardian Street Mapper

***Team Name:*** **The Guardians**

**Picture this: you just had your phone stolen from your hand as you were walking down the street. The security guard in the shop says, “Yes, happens everyday here.” Don’t you wish you had that information beforehand?**



Our solution? An innovative front-end application that not only provides you information on thefts that have occurred around you, but also information and tips on how to handle these situations. Powered by React, React-Leaflet Node.js, and Captcha, this app ensures an intuitive, polished user experience and informs users of phone thefts in their area.

# Concept (user story, motivation for development)

AS a member of the public, I want to be informed of areas where I might be at risk of theft. I WANT TO be able to view this information on a website SO THAT I can protect myself, my possessions and my identity.

The motivation behind our application stems from the real-life challenges faced by people everywhere, especially cities. Phone thefts are through the roof around the world. People's lives are in their devices and these thefts are very violating for victims. Our goal is to empower citizens to inform one another when these events occur through Guardian Street Mapper, which will also openly share this information on the web and with Police forces.

# Process: *Agile Software Development*

**Plan:**

Brainstorming of ideas & wireframing.

Dynamic task delegation.

Research into APIs & libraries.

Kanban Boards, setting up of issues.

**Design**:

React App template built on with modular css, dynamic rendering and Javascript.

**Develop:**

Testing out APIs, libraries, documentation, developing functionality and design. (Police data API + London Boroughs GeoJSON)

Regular standup meetings, adjusting expectations and targets based on time frame and feasibility.

**Test:**

Frequent testing of React, JavaScript/& API functionality and styling of HTML and CSS throughout.

Git Pull Requests tested before merges made.

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# Process: *Technologies* (assisting agile development)

- **GitHub** Repository & Project (issue tracking), code-reviews and pull requests, version control.
- Use of **Git CLI**: Git Branching, commits and pushes to help with workflow and collaboration.
- Use of **VS Code IDE**
- **Figma & Looka -** Page wireframe & Graphic Design Platform to make the website logo.
- **Web-Browser inspectors** to run, test, and debug code.
- **Netlify** for launching and displaying website.
- **Node** for building React app, running, developing and launching page. Installation of libraries.
- **React-Leaflet Library,** Marker Cluster Group Library, Geo Search Library

# Process: *Challenges and Successes*

**Challenges:**

API Fetching

Pair Programming

Implementing modular CSS

**Successes:**

Consistent styling across all pages

Resolving merge conflicts

Communication & Teamwork

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# Demonstration:

1. Explain homepage (Navbar, Logo, Form Submission, API)
2. Explain what can be done with the map? Clicking on the borough, entering the address.
3. What features are used in React-Leaflet? Marker, Pop up, GeoJSON, Marker Cluster Group, Search Button Implementation.
4. Form Submission, Captcha.

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# Future Development:

- Form to feed into map and print on map (attach image if desired).
- Backend built out for global use.
- Map coverage to whole of UK (possibly further).
- Active information sharing with law enforcement.
- Potential development into mobile app.

**Questions Welcome**

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# Deployment:

Repository link:

https://github.com/nonebula/GuardianStreetMapper/

Project link:

https://nonebula.github.io/GuardianStreetMapper/

Netlify link:

https://nonebula.github.io/GuardianStreetMapper/