



IT314
Software Engineering

Crime and Hazard Management

Project Documentation

Group: 30

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- **Functional requirements:**

- 1) **User Authentication:**

A system for registering and logging in users (according to priority, i.e. ordinary users and admins) to ensure secure access to the platform.

- 2) **Efficient Browsing:**

Functionality for searching and sorting properties based on location, crime rate, hazard level, etc.

- 3) **Map/Graph-based property search:**

An interactive map-based search system that allows users to visualize the location of properties in relation to crime hotspots and hazard areas.

- 4) **Visualization of crime and hazard data:**

A system for visualizing crime and hazard data on a map using heat maps, graphs, and other graphical representations. The map will also show the connectivity status of the property with emergency services.

- 5) **Property rating over time:**

A system for storing and displaying historical crime and hazard data for a property, including information about trends and patterns over time.

- 6) **Property comparisons:**

A system that compares properties based on crime and hazard data, as well as other relevant factors like price, location, and amenities.

- 7) **Security and privacy:**

A system for ensuring the security of sensitive information, such as crime and hazard data, while maintaining the secrecy of the user's privacy.

- **Non-Functional Requirements:**

- 1) **Performance:**

The system has to have low latency when displaying maps/graphs and data, low search and filter times and quick response times.

- 2) **Scalability:**

The system needs to be scalable in order to manage growing data and new users as well as new features and functionalities.

3) Usability:

The system must have an easy-to-use interface, be intuitive for users, and be as simple as possible to utilize.

4) Reliability:

System must be available and it must be dependable having little downtime and a low rate of mistakes and malfunctions.

5) Compliance:

The system must adhere to all applicable legal and regulatory requirements, including security guidelines and data privacy regulations.

6) Maintainable:

The developer should be able to easily update the website even after deployment.

7) Recovery:

Should be able to recover lost data in case of failures.

- Use case Diagram

