# Community Safety Map - Project Report

## 1. Purpose and Scope

The Community Safety Map project aims to enhance public safety by providing a platform where users can view reported crimes, hazards, and safety alerts in real-time. The system addresses the need for easily accessible and location-specific safety information, especially during night travel or in unfamiliar areas.  
  
Scope:  
- Covers any location globally with a focus on urban areas.  
- Displays incidents, safe walking routes, and hazard zones.  
- Handles map-based data visualization and routing.  
  
Functionalities:  
- Interactive map with real-time markers for incidents.  
- Safe route calculation between two points.  
- Incident reporting by users.  
- Integration with external map APIs (OpenStreetMap / Google Maps).  
  
Limitations:  
- Accuracy of reports depends on user inputs.  
- Real-time accuracy relies on the freshness of data from APIs.  
- No advanced predictive crime analytics in current version.

## 2. User Needs and Characteristics

Target Users:  
- General public, night commuters, tourists, and urban residents.  
- NGOs and community safety groups.  
  
Information Needs & Behaviors:  
- Search for safe routes, identify unsafe areas, and report incidents.  
- Users refine searches by location or type of incident.  
  
Technical Skills:  
- Basic map navigation skills.  
- Comfortable with mobile and desktop interfaces.  
- No advanced technical background required.

## 3. Evaluation and Success Criteria

Evaluation Methods:  
- Precision and recall of incident location accuracy.  
- User satisfaction surveys.  
- Average route safety score improvement.  
  
Success Criteria:  
- At least 80% user satisfaction rating.  
- Response time under 2 seconds for searches and route generation.  
- Stable uptime over 99%.  
  
Maintenance & Updates:  
- Regular API updates to ensure data accuracy.  
- Security patches for backend.  
- New features based on user feedback every 6 months.