HACKTIVATE

2025

TITLE PAGE

1. Problem Statement Domain: Public Safety & Smart Cities
2. Problem Statement Sector: Women's Safety & Urban Technology
3. Problem Statement Title: "SafeRoute: AI-Powered Safe Navigation for Women"
4. Team Name : THE CODE CRAFTERS
5. Institution: ANURAG UNIVERSITY
6. State: TELANGANA

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PROBLEM STATEMENT

[WHAT ARE YOU SOLVING AND WHY?]

Problem : 81% of women in India feel unsafe walking alone at night.

Limited real-time safety information while commuting .

Delayed response times in emergencies.

Poorly lit streets and unsafe routes.

Impact : Restricts women's mobility and independence.

Affects work and educational opportunities.

Creates constant anxiety and stress.

Economic impact on women's participation in evening/night jobs

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SOLUTION OVERVIEW

[DESCRIBE YOUR CONCEPT AND WHAT SETS IT APART.]

Concept : Mobile app that uses AI to provide real-time safe route navigation and emergency response.

Unique Features : Dynamic safety scoring using real-time data.
AI-powered route recommendations based on multiple safety factors.
One-tap SOS with automatic location sharing.
Works offline for critical features.

Differentiators : Real-time safety assessment vs. static mapping.
Machine learning adapts to changing safety patterns.
Community-driven safety updates.
Simple, focused interface for quick action.

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CORE FEATURES

[SHOWCASE THE MAIN FUNCTIONALITIES]
(INCLUDE VISUALS, IF APPLICABLE)

Safe Route Planning : AI analyzes multiple routes.
Color-coded safety scores.
Real-time updates during journey

Emergency SOS: One-tap activation & Automatic SMS to emergency contacts.
Location tracking and sharing & Loud alarm activation

Safety Scoring: Time-based risk assessment & Street lighting analysis.
Population density consideration & Historical incident data

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TECH STACK

LIST THE TOOLS, FRAMEWORKS, AND TECHNOLOGIES UTILIZED, ALONG WITH REASONS FOR THEIR SELECTION.

Frontend:- React Native: Cross-platform mobile development, fast deployment

Google Maps API: Reliable mapping and navigation

Tailwind CSS: Rapid UI development

Backend:- FastAPI: High-performance Python web framework

MongoDB: Flexible data storage, quick setup- Scikit-learn: ML model implementation- Twilio API:

Emergency SMS notifications- crime API: for crime rate in area

AI/ML:- Random Forest Classifier: Safety score prediction- Time-series analysis: Pattern recognition-

Geospatial analysis: Location-based risk assessment

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PRACTICALITY & IMPACT

[DISCUSS THE VIABILITY OF YOUR SOLUTION AND ITS BENEFICIARIES.]

Beneficiaries:- Working women commuting at odd hours- Female students in universities- Women in urban and suburban areas- Corporate organizations ensuring employee safety

Viability:- Technical: - Scalable architecture - Low infrastructure requirements - Offline functionality for critical features

Social Impact: - Increased women's mobility - Better emergency response - Community safety awareness - Data-driven safety improvements

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LITERATURE REVIEW(optional)

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TEAM : THE CODE CRAFTERS

S VINEEL KRISHNA
Lead

P SAI SRUJANA

P PAVAN KUMAR

P MANIKANTA