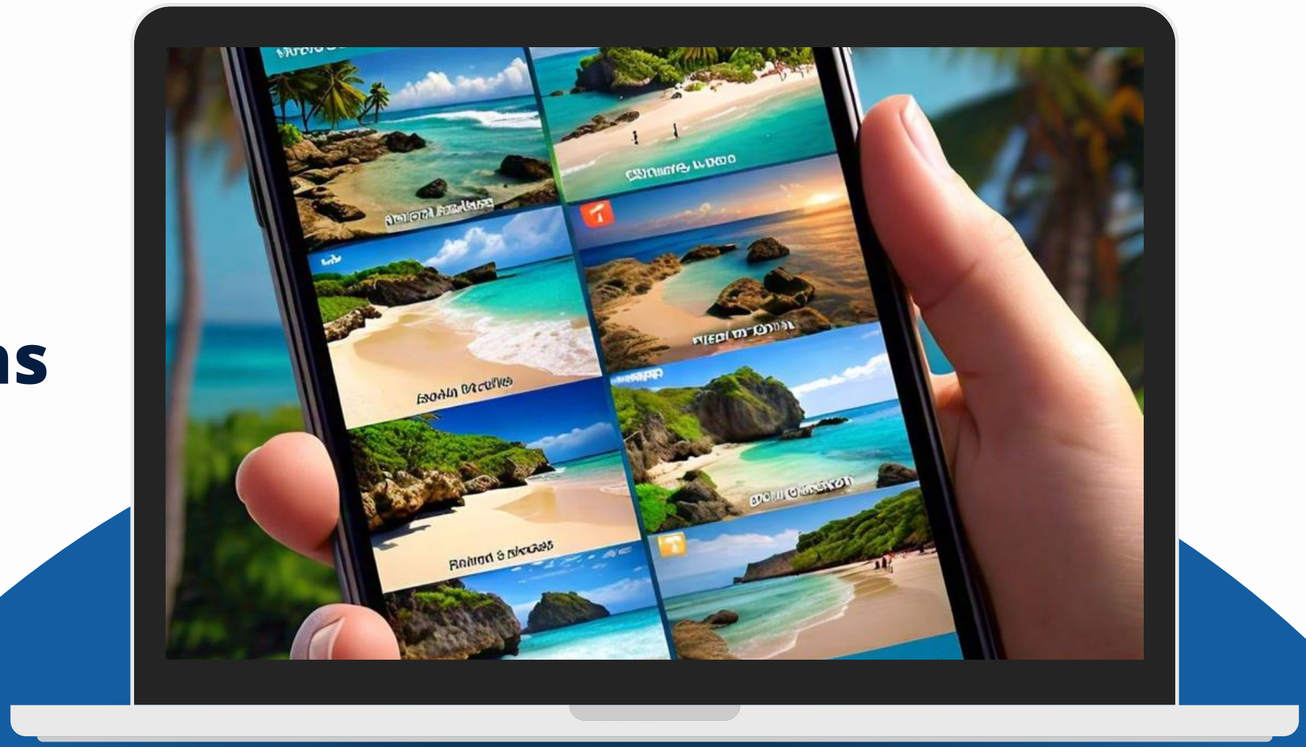
Bitwise
Innovators

SIH-1656 : Development of a mobile application to provide recreational suitability information of beach locations across India.



Team Members :

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5. Vaishant Sharma
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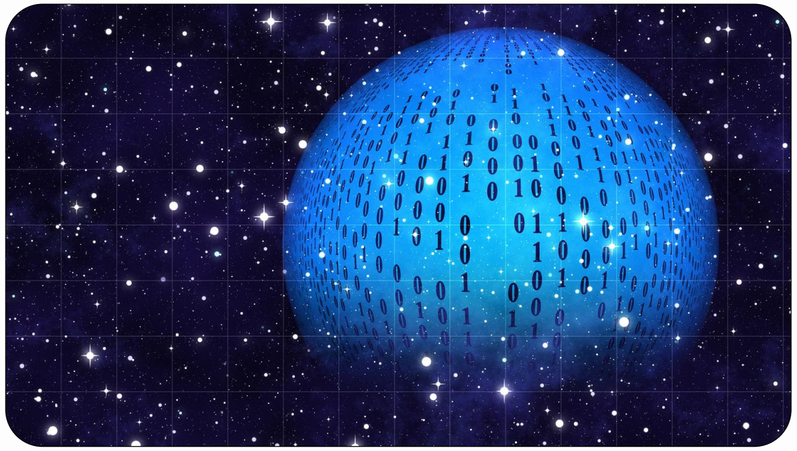
Introduction

With the anticipated growth in coastal tourism, ensuring the safety and security of tourists is paramount. Current safety measures are often reactive rather than proactive, lacking the integration of advanced technologies to monitor and mitigate risks in real time. There is a critical need for a technology-driven solution that can enhance safety protocols and provide tourists with the necessary information and resources to ensure a secure and enjoyable experience along India’s coastlines.

Proposed Solution

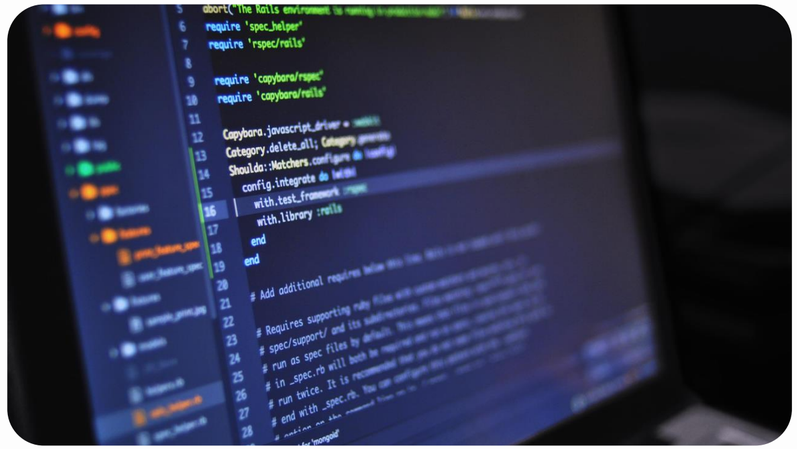


Data Integration and Analysis

Leverage INCOIS API to collect real-time data on ocean alerts, wind conditions, and water quality. Process and analyze this data to assess the safety of selected beaches.

Safety Evaluation and Recommendations

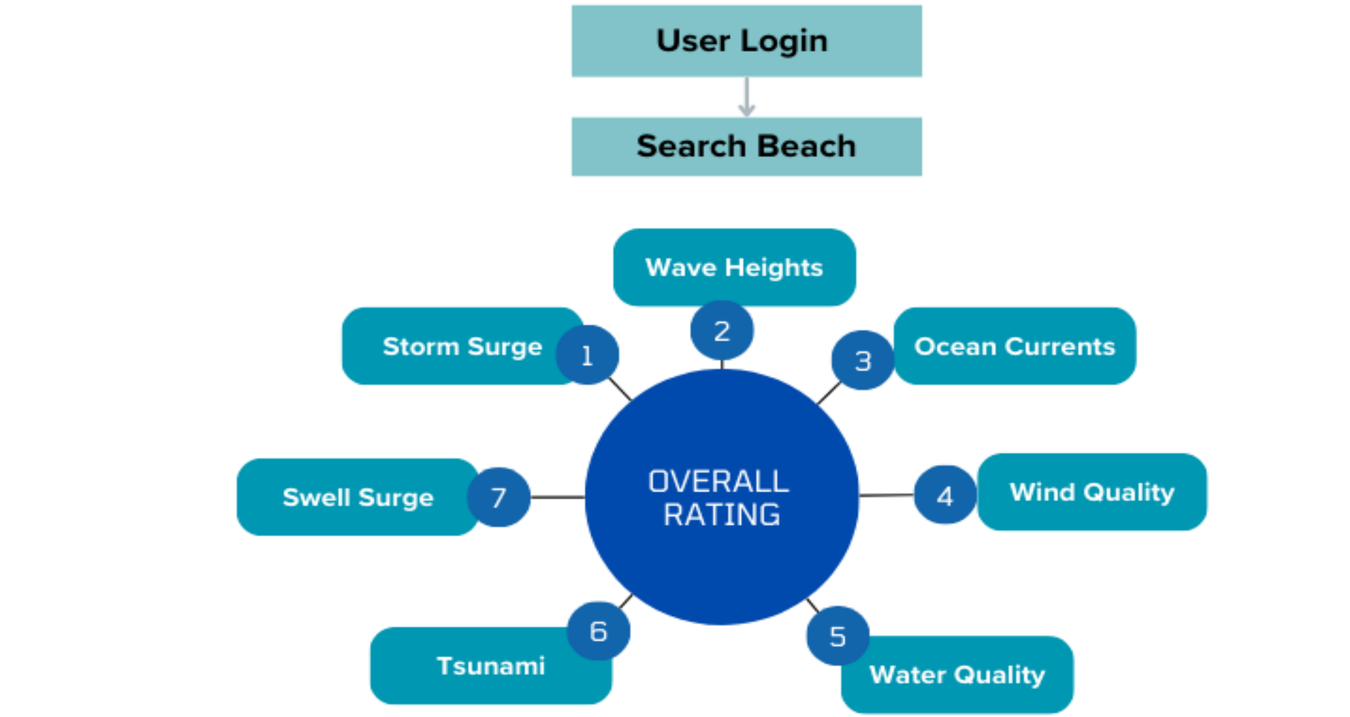
Implement algorithms to evaluate the safety of beaches based on current conditions. Provide users with recommendations for alternative safe beaches if the chosen location is deemed unsafe.



User-Centric Visualization

Design an intuitive user interface that guides users through the journey of searching for beaches, checking real-time safety information, and receiving alternative recommendations.

Thought Process



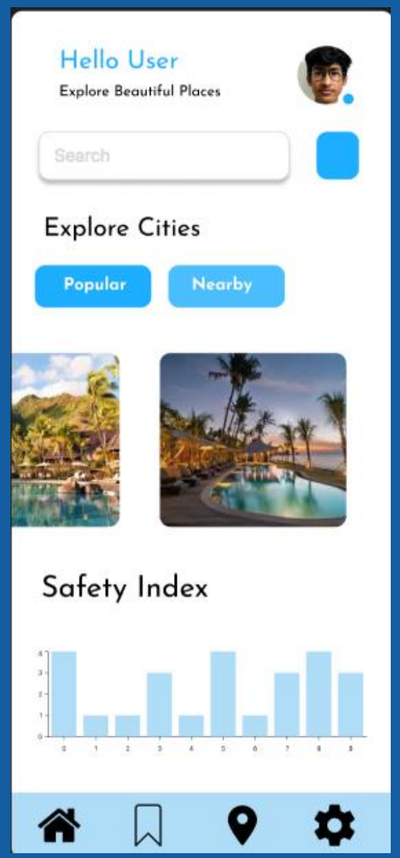
Still want to visit?

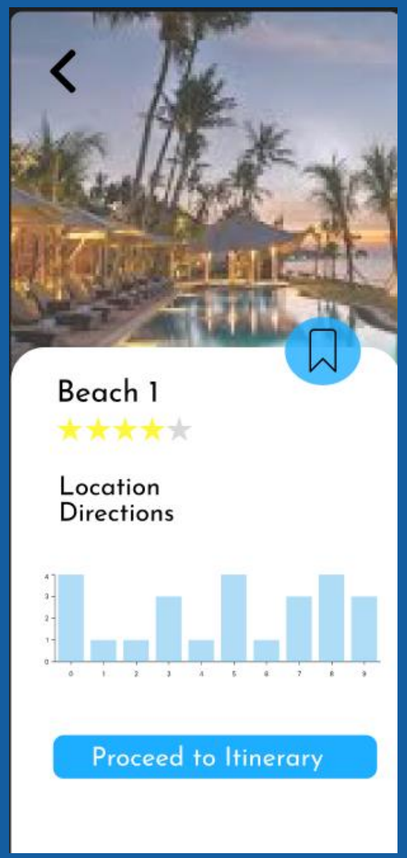
Activities to avoid, safety methods/precautions, and hotel descriptions.

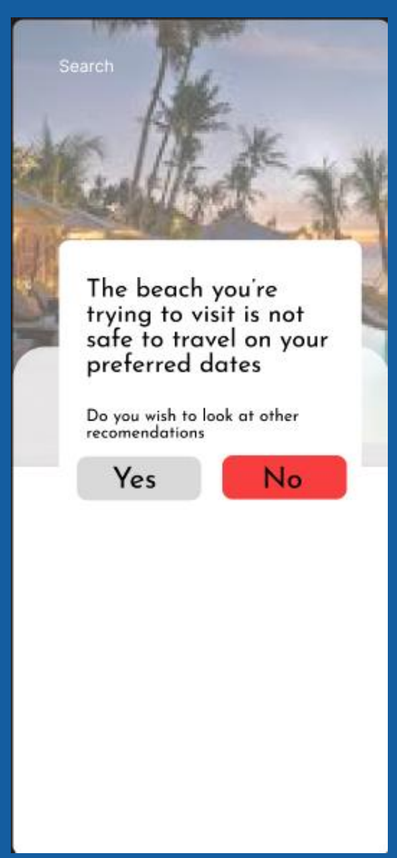
Other places you may visit

Beach location displayed on map with color-coded regions.

Some insights of our product







Unique Selling Points

This app aims to create a safer coastal tourism experience by empowering tourists with the information and tools they need to stay safe while enjoying India’s beautiful coastlines.

01 Real-Time Safety Alerts: The app provides instant notifications about unsafe beach conditions by continuously monitoring data from the INCOIS API, helping users make informed decisions.

02 Geospatial Visualisation: An interactive, color-coded map displays the safety status of beaches, allowing users to quickly assess and choose safe locations based on real-time data.

03 Personalised Recommendation: The app suggests alternative beaches tailored to user preferences if the selected beach is unsafe, ensuring a personalized and safe experience.

04 The app uses reliable data from INCOIS for accurate safety assessments, leveraging government-sourced information on ocean conditions and water quality.

Business Model

Freemium Model

Basic safety information for free; premium insights and features with subscription.

Partnerships

Collaborations with tourism boards, beachside businesses, and travel agencies.

Advertisements

Targeted ads for nearby restaurants, hotels, and tour operators.

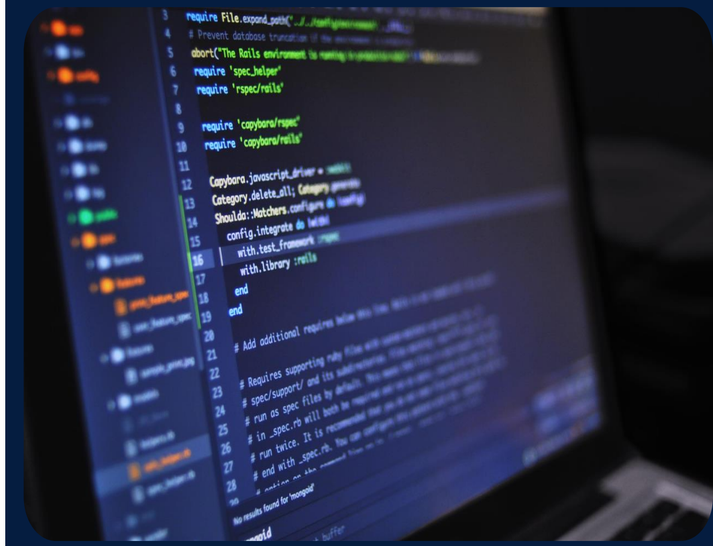
Tech Stack

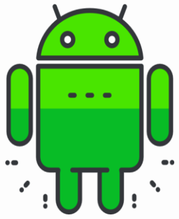
Android : Mobile app development for wide user reach.

Flask : REST API creation using Python.

Python : Machine learning models to predict beach safety.

Firebase: For authentication, real-time database, and cloud storage.





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THANK YOU!