SMART INDIA HACKATHON 2024

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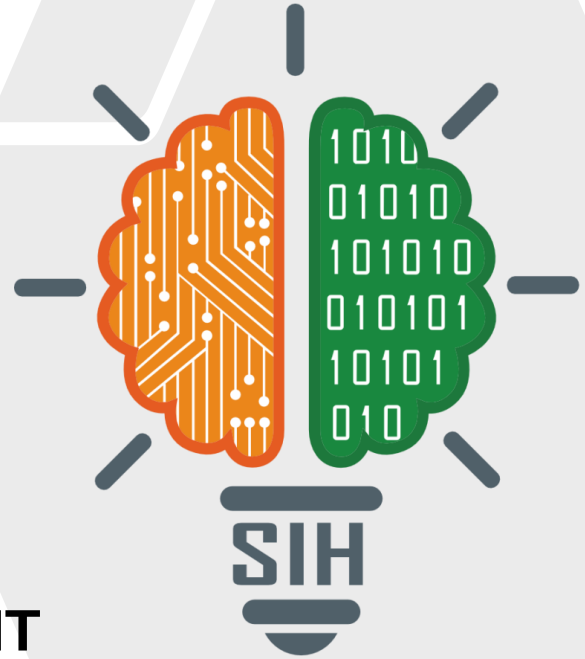
TRAVEL AND TOURISM

- **Problem Statement ID - SIH1591**
- **Problem Statement Title- Student Innovation**
- **Theme - Travel and Toursim**
- **PS Category - Software**
- **Team ID - 356**
- **Team Name - RGCET-CODESPRINT**



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COMPREHENSIVE TRAVEL WEB APPLICATION

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IDEA / SOLUTION :

The web application will serve as a comprehensive travel destination recommendation platform.

- Users can browse and search for detailed information about top tourist destinations.
- Logged in users can track the places which they have visited and manage their travel posts.
- Users can share posts about places they have visited.
- They can also leave feedback which helps other users make informed decisions.
- Based on the user's travel history, the web application suggests new places to visit.
- web application will also have 3D-Map for users to virtually experience the place.

IMPACT :

- Enhanced User Experience
- Increased Tourism
- Informed Decision-Making
- Environmental Awareness
- Cultural Exchange and Understanding

BENEFITS:

- User Engagement and Loyalty
- Revenue Generation
- Brand Recognition and Market Positioning
- Data Insights and Analytic
- Global Reach

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COMPREHENSIVE TRAVEL WEB APPLICATION

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CHALLENGES:

- The web application can easily become cluttered due to vast amount of information, which can confuse visitors.
- Sometimes, device responsiveness may be low, and it will drive customers away.
- Performance issues may arise as the web application grows and attracts more users, like slow page loading.
- Integrating third-party services can be complex and prone to errors.
- There are many travel web applications, which will provide tough competition to the web application.

SOLUTION:

- Conducting regular user testing to gather feedback on usability and continually improve the interface.
- Compress images, and minimize code to ensure quick loading times.
- using SSL certificates (HTTPS) to secure data transmissions.
- To overtake competition, offering unique services like personalized itineraries, AI-powered travel recommendations, and social features.
- Encourage positive feedback by actively engaging with users, responding to reviews, and offering incentives for leaving feedback.

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TECHNICAL APPROACH

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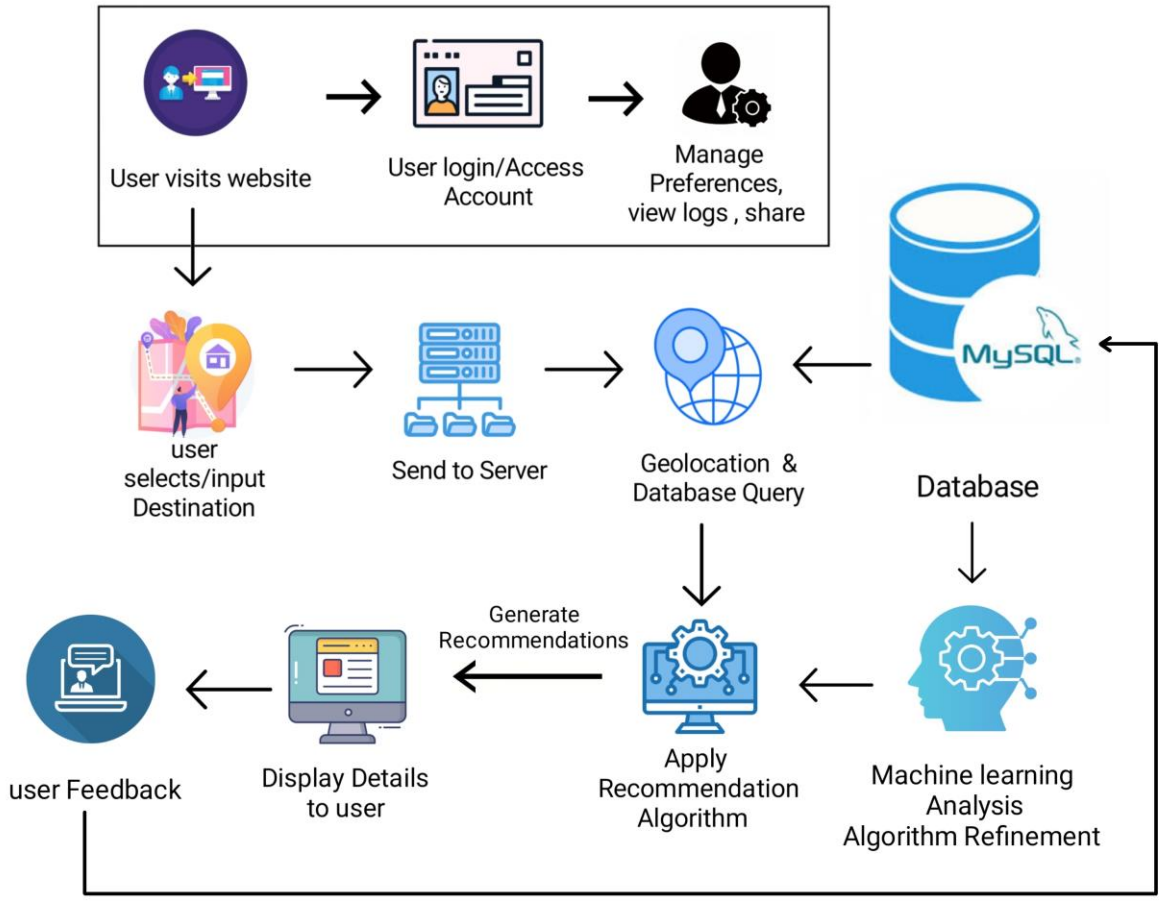
TECHNOLOGY STACK

- **Frontend:** HTML5, CSS3, React.js
- **Backend:** Node.js, Python + Flask
- **APIs:** Google Maps, API for geolocation and mapping, custom APIs for user interaction and feedback handling.
- **Security:** Implement HTTPS, user authentication, and data encryption to ensure a secure environment for user data

PROCESS FLOW ARCHITECTURE



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RESEARCH AND REFERENCES

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- **Google Maps API Documentation:**
  https://developers.google.com/maps/documentation/javascript/overview
- **HTML5 Geolocation API:**
  https://developer.mozilla.org/en-US/docs/Web/API/Geolocation_API
- **Machine Learning and Recommendation System Resources:**
  https://scikit-learn.org/stable/
- **Stack Overflow:**
  https://stackoverflow.com/