

CEYLON TRAILS

Horizon Campus

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1. INTRODUCTION

1.1 Overview

Ceylon Trails is a mobile application designed to help users explore popular travel destinations in Sri Lanka. It offers comprehensive information about various locations, allowing users to search for and discover new places.

1.2 Key Features

- ✓ Search for travel destinations.
- ✓ Browse popular destinations.
- ✓ View detailed information and images of destinations.

1.3 Supported Platforms

- Android (Minimum version required: 8.0 Oreo)

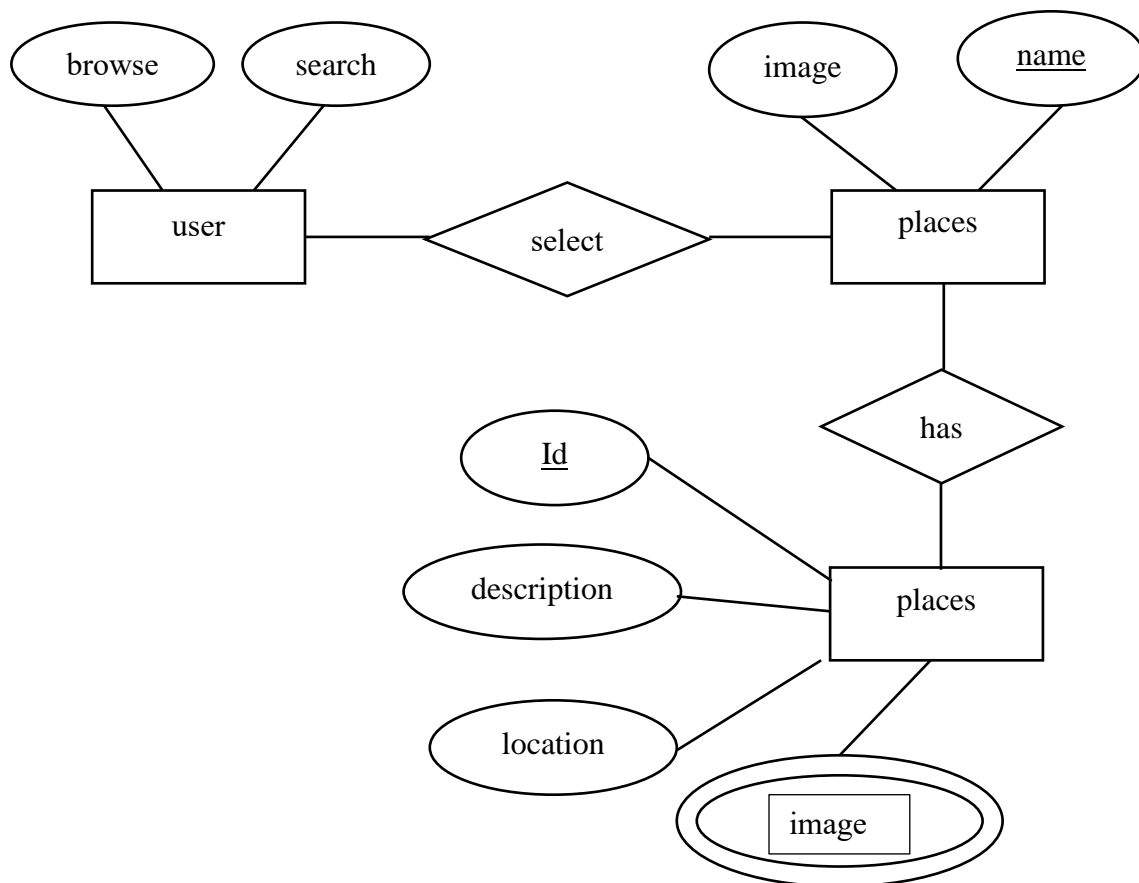
2. Objectives

1. **Enhance Travel Experience:** Provide a seamless and intuitive platform for travelers to explore Sri Lanka.
2. **Trail Discovery:** Offer detailed information on various hiking trails, including difficulty levels, lengths, and locations.
3. **Real-time Navigation:** Integrate interactive maps and location tracking to assist users during their hikes.
4. **Offline Access:** Allow users to download maps and trail information for use in areas with limited connectivity.

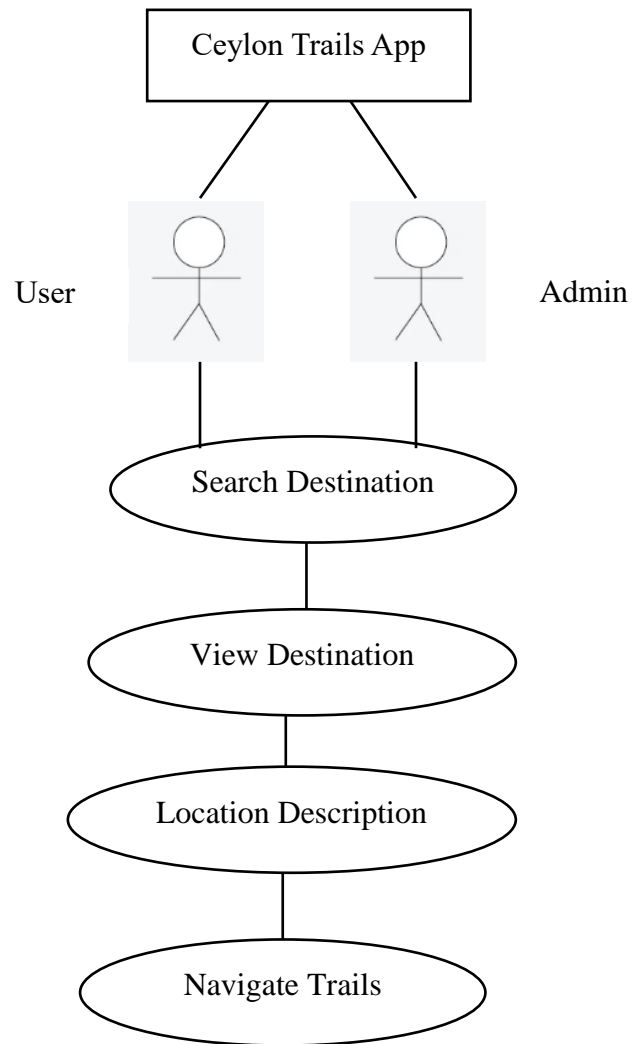
3. Diagrams

3.1 ER

The ER Diagram for the Ceylon Trails application represents the primary entities and their relationships within the system.



3.2 Use Case Diagram



4. Security and Privacy

4.1 Security Measures

1. **Data Encryption:** All sensitive data is encrypted using industry-standard protocols such as SSL/TLS for data in transit and AES for data at rest.
2. **API Security:** Secure APIs using OAuth 2.0 and rate limiting to prevent abuse and unauthorized access.

4.2 Privacy Considerations

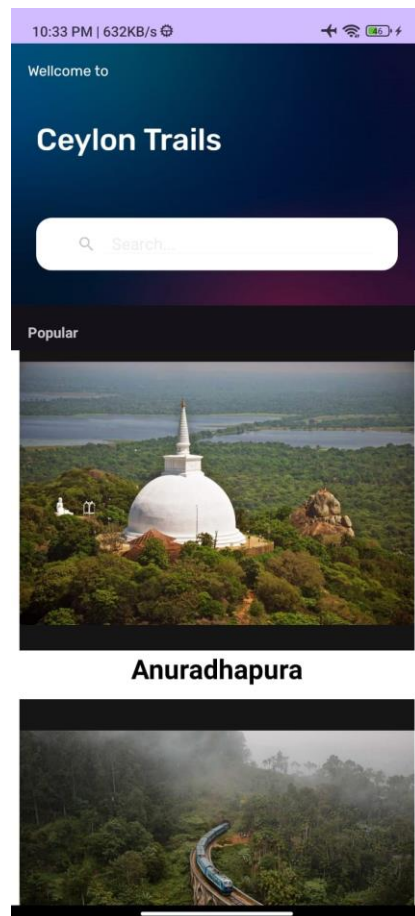
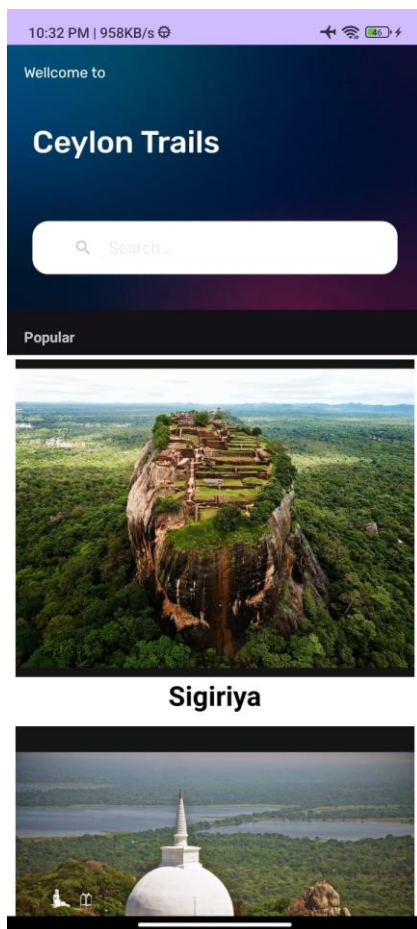
1. **Data Minimization:** Collect only the data necessary for the app's functionality.
2. **User Consent:** Obtain explicit consent from users before collecting or processing their data.
3. **Data Anonymization:** Anonymize personal data when used for analytics and reporting.
4. **Compliance:** Ensure compliance with relevant privacy regulations such as GDPR and CCPA.

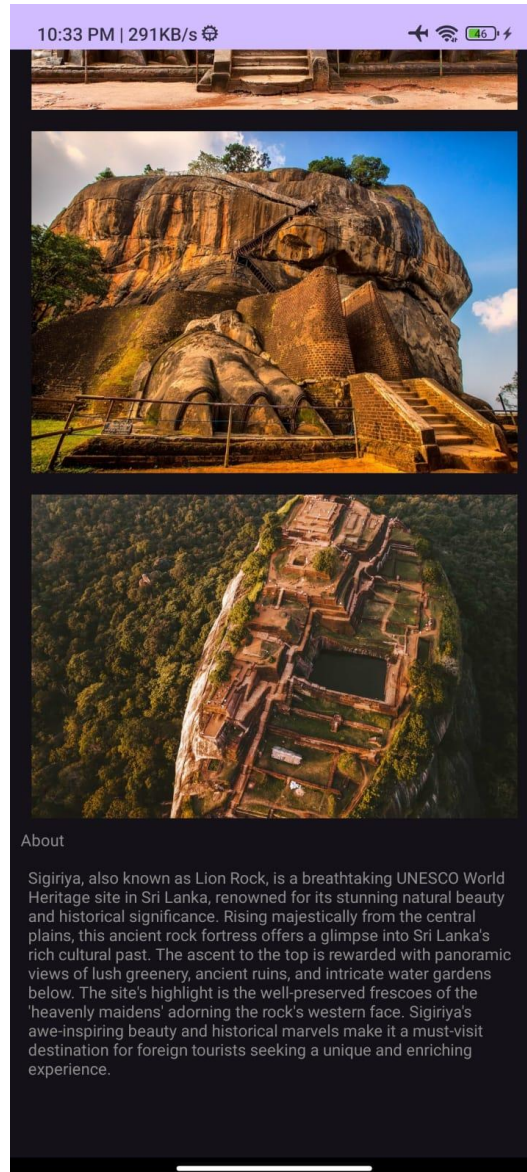
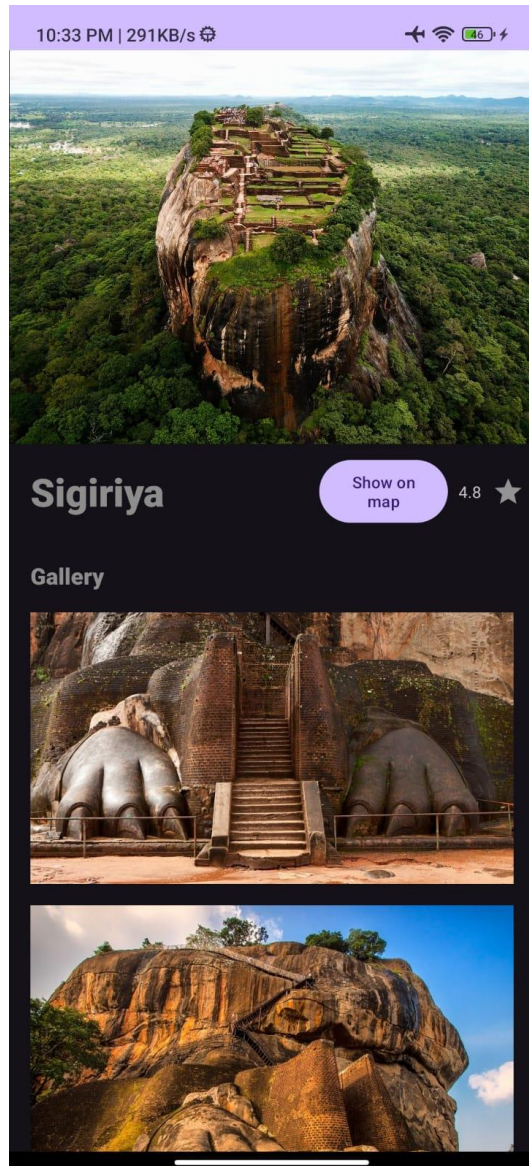
5. User Guide

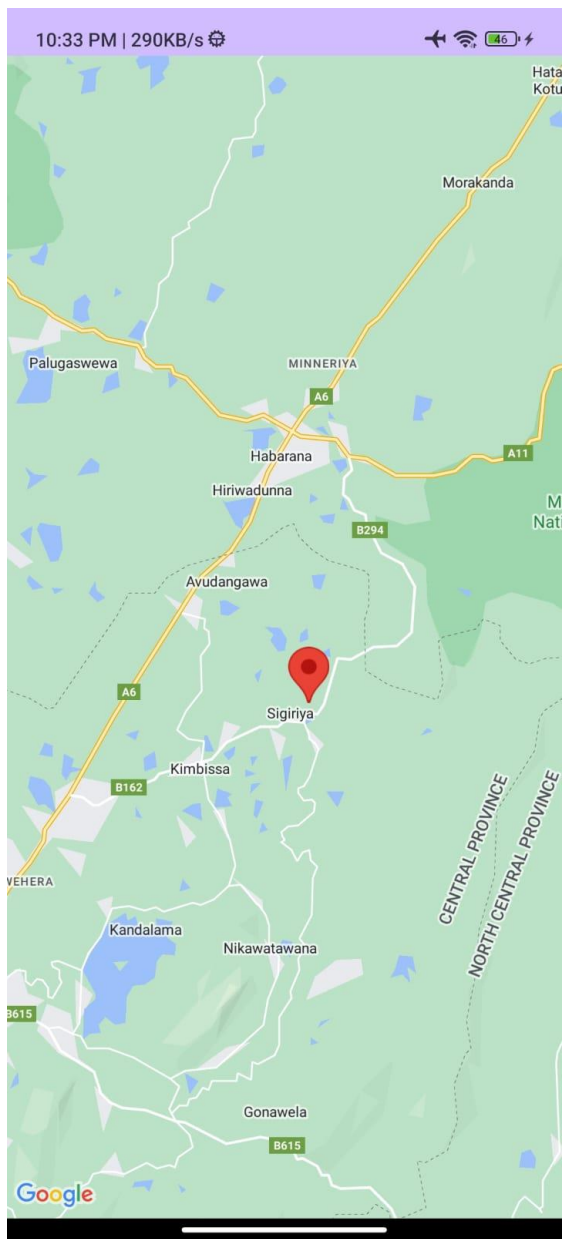
5.1 User Interface Overview

The main interface of the Ceylon Trails app consists of the following components:

- ✓ **Welcome Screen:** Displays a welcome message and search bar.
- ✓ **Search Bar:** Allows users to search for destinations.
- ✓ **Popular Destinations Section:** Displays a list of popular destinations with images and names.







5.2 Main Features

- **Welcome Message:** "Welcome to Ceylon Trails"
- **Search Bar:** Enter a destination name to search for it.
- **Popular Section:** Browse through the list of popular destinations such as Sigiriya, Anuradhapura, Ella, etc.

6. Design Documentation

6.1 UI/UX Design

- **User-Centric Design:** Focused on providing an intuitive and seamless user experience.
- **Consistent Layout:** Ensures a consistent look and feel across all screens.
- **Visual Appeal:** High-quality images and a clean interface to enhance user engagement.

6.2 Wireframes

- **Home Screen:** Shows the layout of the welcome message, search bar, and popular destinations section.
- **Destination Details Screen:** Shows the layout of the destination image and details.

6.3 Prototypes

Interactive Prototypes: Demonstrates user flow from searching for a destination to viewing its details.

6.4 Style Guide

- **Typography:** Modern and readable fonts.
- **Color Scheme:** Uses a mix of dark and vibrant colors to highlight different sections.
- **Iconography:** Simple and intuitive icons for navigation and actions.

7. Testing and Quality Assurance

7.1 Testing Strategy

- **Unit Testing:** Tests individual components and functionalities.
- **Integration Testing:** Evaluates the interaction between different modules.
- **User Acceptance Testing (UAT):** Validates the app with real users to ensure it meets their needs.

8. FAQ and Support

8.1 Frequently Asked Questions

- How to search for a destination?
- How to view detailed information about a destination?
- How to report a problem with the app?

8.2 Support

- ❖ **Contact Information:** Users can contact support via email at support@ceylontrails.com.
- ❖ **Help Center:** In-app help center with articles and guides.

9. Legal and Compliance

9.1 Privacy Policy

- ❖ **Data Collection:** Details on what data is collected and how it is used.
- ❖ **User Consent:** Information on obtaining user consent for data collection.

9.2 Terms of Service

- ❖ **User Responsibilities:** Guidelines on how users should interact with the app.
- ❖ **App Usage:** Terms governing the use of the app and its services.

10. Appendices

10.1 Glossary

- ❖ **Destination:** A place that people visit for tourism.
- ❖ **Itinerary:** A planned route or journey.

11. Conclusion

Ceylon Trails enhances travel in Sri Lanka with detailed trail information, real-time navigation, and local guides. The robust technology stack ensures high performance and scalability. Strong security and privacy measures allow users to explore confidently. This documentation outlines the objectives, data model, user interactions, and security protocols for developers and stakeholders.

<https://drive.google.com/drive/folders/1CXHuKjlkJLA9kEuTYvo22XG2kOolpGgG?usp=sharing>