# Location-Based Services Requirements Sample

## 1. Introduction

This document outlines the sample requirements for implementing Location-Based Services (LBS) in an application.

## 2. Functional Requirements

- The application shall obtain user consent before accessing location data.
- The application shall detect the user's current geographical location using GPS, Wi-Fi, or cellular network.
- The application shall allow location tracking while the app is in use.
- The application shall provide location-based notifications or alerts when the user enters predefined geographical zones.
- The application shall display nearby points of interest based on user preferences.
- The application shall allow users to search for locations and receive route directions.
- The application shall store user location history securely with user's permission.

## 3. Non-Functional Requirements

- The application shall not access or share location data without explicit user consent.
- Location data accuracy shall be within 20 meters under normal conditions.
- Location fetching and related operations shall respond within 3 seconds.
- The application shall comply with privacy regulations regarding user location data.
- The application shall minimize battery consumption when accessing location services.

## 4. Data Requirements

| Data Item | Description |
| --- | --- |
| Latitude | User's current latitude coordinate. |
| Longitude | User's current longitude coordinate. |
| Timestamp | Date and time when location was captured. |
| Accuracy | Accuracy of location data in meters. |
| User Consent | Boolean indicating if user permitted location access. |

## 5. Security Considerations

- User location data shall be encrypted in transit and at rest.
- Access to location data within the application shall be restricted based on user roles.
- Users shall have the option to delete their location history at any time.