SOFTWARE ENGINEERING EXERCISE 2

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Please provide a Software Requirements Specification of your App for tourists in Vienna. Define at least the following parts:

- Goal of your App
- Functional and non-functional requirements using MoSCoW prioritization and Rupp's template-based approach
- Use Case Diagram

Goal of the App

The app aims to improve the tourist experience in Vienna by offering real-time, personalized information on key attractions, dining, cultural events, and transportation. It includes navigation, guided tours, and language translation to help users explore the city easily and comfortably, regardless of their language or familiarity with Vienna.

Functional requirements

Must:

- The app must offer comprehensive information about key tourist attractions in Vienna, such as Schönbrunn Palace and St. Stephen's Cathedral.
- The app must provide real-time navigation support for walking, cycling, and public transportation.
- The app must deliver live updates on local events, festivals, and exhibitions to keep tourists informed.

Should:

- The app should include an Augmented Reality (AR) feature to provide interactive historical insights and virtualtours of important landmarks.
- The app should enable users to create customized itineraries based on their preferences, such as art, history, or food experiences.
- The app should support multiple language options, including English, German, French, and Spanish, to accommodate international visitors.

Could:

- The app could integrate with restaurant reservation systems, allowing users to book tables at local eateries.
- The app could offer offline access to maps and essential information for users without reliable mobile connectivity.

Won't:

- The app will not include hotel booking functionality, as this is outside the primary focus of the app.

Non - Functional requirements

Variety:

- **Compatibility**

The app should work on all devices that have iOS or Android. This ensures that tourists with different types of phones can use the app.

- **Scalability**

The app must be able to support up to 100,000 users at the same time, especially during busy tourist seasons, without slowing down.

Ease of Use:

- **Response Time**

The app must react to user actions like searching within 3 seconds so that users don't experience delays.

- **Battery Efficiency**

The app should use no more than 5% of a phone's battery every hour, allowing tourists to use it without quickly draining their battery.

Reliability:

- **Data Security**

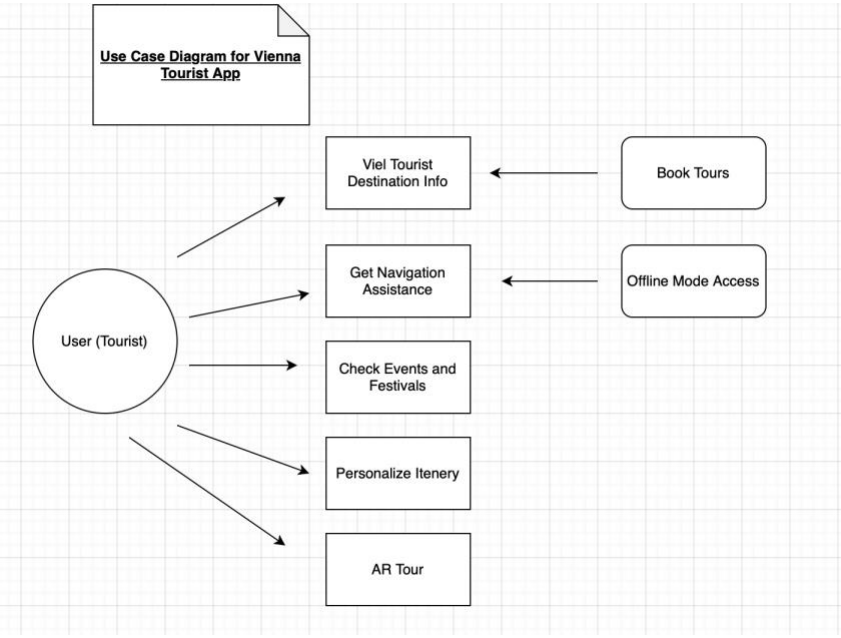
The app must keep personal information like preferences safe by encrypting it, ensuring that users' data is protected.

- **System Availability**

The app should only be unavailable for a maximum of 0.1% of the year, meaning it will work almost all the time without interruptions.

- **Compliance**

The app must follow European GDPR privacy rules, ensuring that users' personal data is handled properly and securely.



Use Case: View Tourist Destination Information

Description

This feature allows the user to see information about famous places in Vienna, like history, photos, and location.

Stimulus

The user taps the View Destination button in the app.

Response

- The app shows a list of popular places to visit.
- The user chooses a place from the list.
- The app shows details about the place (history, opening hours, location, etc.).

Comments

The user should be able to filter the list by their preferences, such as parks, museums, or historical sites.

Use Case: Get Navigation Assistance

Description

This feature helps users get directions to the places they want to visit.

Stimulus

The user taps the Get Directions button after choosing a place.

Response

- The app shows a map with the current location and destination.
- The user selects the travel mode (walking, biking, or public transport).
- The app gives step-by-step directions to the destination.

Comments

The user should be able to save the route for offline use.

Use Case: Personalize Itinerary

Description

This feature lets users create a custom travel schedule based on their interests.

Stimulus

The user taps the Create Itinerary button in the app.

Response

- The app shows a list of places and events.
- The user picks places and events to add to the schedule.
- The app creates a personalized plan based on the user's choices.

Comments

The app should suggest the best routes and times for the selected itinerary.

Use Case: Check Events and Festivals

Description

This feature allows users to check information about ongoing or upcoming events in Vienna.

Stimulus

The user taps the Events tab in the app.

Response

- The app shows a list of current and upcoming events.
- The user selects an event to see more information.
- The app displays the event's details.

Comments

The app should allow users to set reminders or buy tickets for events.

Use Case: AR Tour

Description

This feature provides an interactive Augmented Reality tour of landmarks.

Stimulus

The user selects the AR Tour option for a particular place.

Response

- The app opens the camera and starts the AR experience.
- The user points the camera at the landmark and the app shows extra information on the screen.
- The app allows the user to interact with 3D visuals or animations.

Comments

Some AR tours should be available offline for convenience.