SOFTWARE ENGINEERING LAB PROJECT PROPOSAL

Pocket Tour Guide for Yogyakarta

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Problem Description

Yogyakarta is one of the most popular tourist destinations in Indonesia, may it be domestic or international. The existing ways to plan a travel are those of the conventional methods, such as through a travel agency. While the internet offers a simpler way of getting information about activities, places, accommodation, as well as their prices, travellers still have to gather information as often times they are scattered around multiple websites, consuming a significant amount of time, not to mention the complex process of planning and scheduling. The conventional travel agencies simplify this process by booking flights, cruises, rental cars and hotels, as well as resort stays and events in a tour packet. They may make suggestions to the client based on their experience, or offer complete travel packages from various resorts or cruise lines. They are often restricted to a budget, and must be highly organized in order to offer their clients travel arrangements that suit both their financial limitations and leisure or business travel expectations. Agencies work with computers to contact airlines, cruise lines, resorts, and rental companies in order to secure travel arrangements for the travellers. They research information on their client's travel plans and relay important information including weather conditions, travel advisories and required documents for their destination. In addition to that, some agencies also provide visa application services for international travels. Through a systematic manner, clients are offered ready used services and information to meet their needs. These services, however, generally costs extra for their services as well as the guide's service cost. This is well explored by companies that offers information and services, yet currently still in an unintegrated manner. The new offered system, therefore, offers an integrated service and information that allows users to customize their trip independently and flexibly.

Business Process

The business process of a tourism package involves multiple stakeholders. Stemming from the owners (if there is/are) of the tourist spot, who runs the location as well as its maintenance. The owner of the tourist spots will be the primary source of information related to the location, e.g. history, business hours, entrance fee, etc. The ticketing scheme may also be constructed by the owner of the spot. The activity of the spot will be monitored by the owners, including what to do and who can enter the area; this includes several stakeholders such as the client and vendors (both products and services). Vendors, if present in the spot, might include both product vendors who sells anything that ranges from consumables to souvenirs and also service vendors that may provide extra services such as area guide or merely other forms of services. The kinds of services as well as the prices of the services that will be offered may or may not be known by the client; the client is either offered the information or looks on their own. Information

regarding the spot may be both supplied and presented by either the owner of the spot or a service vendor in the form of tour guide. Finally, all the processes or spot management may have to be monitored by the local government, and its comprehensiveness depends on the local customs or the kind place the tourist spot is (in cases of conservation area). The role and actions of various stakeholders on this part of the business process together form the supply side of the tourist spot.

The mobilization of the client from their respective locations to the site also involves various stakeholders to take part in delivering the client to the spot. Firstly, the client orders a means of transportation to access the spot, be it air transportation or land transportation. The client may choose to purchase the services together in a package, or parts by parts individually through different services. To enter the area, clients may need to purchase the ticket on the spot or pre-purchase a ticket through a service vendor. The client may want to enter the spots alone or with guides, depending on the characteristics of the client. The intent of the client determines which path is chosen in the course of the trip. If the user comes from an area far from the destination location and the trip lasts more than a day, a reservation would be made for accommodation according to the budget of the trip. Current booking systems affiliated itself with hotel managements, tourist sites, or agents themselves to provide choices for clients.

During the duration of the trip, various information that may affect the trip, such as weather and traffic conditions, would be useful for the convenience and comfortability of the user. Given a time budget, the user may have to efficiently allocate their time efficiently. The aforementioned information could be retrieved conventionally from news media as well as application services to aid in the time allocation and travel path during the trip. With such resources, the client or the guide may choose in a single day which tourist site would be visited such that time is efficiently used. Through the integration of different stakeholders from the supply and demand chain in the market of tourism, the business process could be relatively efficiently run.

Design Process

- **Logistics allocation process**. Assessing the costs, making a budget, researching for destination pass fees.
- **Itinerary scheduling and planning process**. Finding out the places to visit and activities to do.
- **Airfare booking process**. Finding out which airlines to take that is providing the facilities based on preference and budget allocation as well as having a fitting departure time.

- **Preparing the documents.** Some countries require a visa to enter and exit the country. If a travel visa is necessary, then application should be made immediately after the above processes are done.

- **Accommodations booking process**. Finding an accommodation according to the itinerary, the length of stay, and the area within reach to the travel destinations.

- **Travel insurance application process**. Providing insurance while traveling is considered necessary in the case of unwanted incidents.

- **Extra information services.** Providing clients with weather and traffic reports to improve comfortability.

User Specification

Based on business processes and process designs, user specifications is determined that can later be used for modeling data described using Entity Relationship Diagrams (ERD).

- **Accommodation providers** such as hotels, hostels, bed and breakfasts (b&b), and others.
- **Airlines** that provide flights to and from the travel destination.
- **Transportation providers** such as taxi companies, public transportation, car rentals, and others.
- **Tourist attraction manager** in charge of the destinations to get information regarding the attraction sites, entrance passes, and fees**.**
- **Tourism spot complementary vendors** provides goods and services to clients, outside of the tourist spot itself.
- **Trip planner** organizes the administrations and plan of the clients such that they would just need to enjoy the trip.
- **Customers** that needs assistance on planning their travels**.**