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The Perfect Vacation

Software Engineering Project

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<u>Project Description</u> – Our app serves people who want to go on vacation abroad and gives them reliable information regarding the costs of flights and hotels, separately or as a package deal, allowing them to choose the most fitting profitable offer.

<u>Feasibility Test</u> – Our system's potential client is the travel agency. It is an organization which offers travelling services and products adding wide support to the tourism branch. The Agency's job is to give their customers a full and accurate response regarding tourism withing their country, or outside of it.

The system will promote the agency's purposes by providing the end users with a convenient app that will find them a profitable package of flight and hotel in attractive prices and ease on the burden of arranging the trip. With the system, the organization will increase its sales and the number of customers using its services.

The system will integrate the flight companies with the management system of the hotels, in order to check availability for saving tickets and rooms directly with them.

<u>Direct Stakeholders</u> -

- Flight Companies – Their goal is to gain publicity and advertisement from additional sources, and also a convenient way for customers to purchase tickets from them.
- Hotel Owners – Similarly to the flight companies, they would be interested in exposure to new crowds, local and foreign, and also in a convenient interface for orders to be made. In addition, they can include package deals (flight + hotel) in collaboration with the flight companies.
- System Users – The customers who purchase tickets using our system are looking for the best prices, in the most fitting dates. These are affected by seasons, holidays, amount of time ahead of the flight, etc. The various parameters mentioned affect the system by determining whether the prices are attractive enough for them and thus affect the company's income.

<u>Indirect Stakeholders</u> –

- Rivaling Travel Agencies – Our app will be competing with them, and so they may take competitive measures such as lowering prices, offering new deals, collaboration with more hotels, etc.
- The Tourism Industry (Tourism Office) – The system will increase tourism in the relevant country by easing on the process of sealing a deal and making it approachable. The industry's interest can be seen in the large amounts of touristic establishments that are open for visitors, such as restaurants, museums, public parks etc. that are meant to support the local economy.

Functional Requirements –

- We would want the app users to log in by email and a password of their choice.
- The system will allow the user to enter the wanted destination and dates, before sharing the offers.
- The system will present the most fitting options in order of price, from cheapest to most expensive.
- There will be a filtering option where the customer may select specific flight companies, hotel locations, hotel star rating, etc.
- The customer will choose the type of room he is interested in, as well as the flight class he would like to fly in.
- The system will keep track of the customer's activity in order to find them the most relevant offers.
- The system offers more special deals to customers who have made more purchases.
- The system gives a bonus to new customers using its service.
- The system allows online purchase by credit card, Bitcoin and PayPal.
- The system will save purchases data in a repository for analyzing purposes, allowing to improve performance and to pass analyzed data to the organizations working with it.

- The system will save the deal for a specific customer for 15 minutes until the purchase is confirmed. If time runs out and

the purchase is yet to be done, the customer will return to the beginning of the process.

- The system will present the number of available tickets and rooms.
- The system will present the number of views on a deal in the recent hour.
- The system will be defined in a unique domain.
- The system will include a review forum, with comments of users regarding vacation packages, specific hotels, flight companies, etc.
- The system will allow search of products with an optimized search engine.

Non–Functional Requirements –

External requirements:
- Security – Complete privacy of personal details and payment details of the users by a secure payment.
- Ethic requirements – Allowing a deal cancellation option for free, for a set time ahead of the flight, with a full refund. Additionally, the system will be consistent regarding prices, and will not increase them following multiple searches/uses.
- Regulatory requirements – The system will collect data with users' approval only, according to the country's regulator, and will follow their rules.

Organizational requirements:

- Operation requirements – The system will operate in any browser and will have a mobile supported version. It will also support every operating system.
- The activity in the system continues as usual while the vacation and flight deals are being updated.

Product requirements:
- Usability –

1. The system's interface should be convenient, organized and easy to use. This will be done with a display of large letters, soft colors and buttons with a clear purpose.
2. There will be a site map, helping the users with searching and answering common questions.
3. There will be an accessibility button for people with disabilities including audio text reading, increasing text size, etc.

- Profitability – The system will allow external advertisers to present ads in a way that doesn't interrupt the use (sidelines, minimal size). It will also allow various payment methods (as detailed in functional requirements).
- Performance requirements –
1. The system will search results for 7 seconds before returning "no available deal fitting user's request".
2. Capacity: There can be up to 2000 simultaneous purchases, and up to 200,000 customers using the system at the same time.
3. The system will aspire to stay available 24/7, and in case of crash must return to service in a range of 24 hours maximum.
4. The response time of the system to any users' click must not take longer than 1 second.