Online Vacation Planner

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Software Requirements Specification

1. Introduction

In today's world, life has become busy, chaotic, and overwhelming. The need for relaxation has become almost trivial. Whether you are a person who deserves a break from all the running and mental exhaustion, or a person who is looking forward to quench your wanderlust, traveling is the best thing you can do to help open your mind and escape reality. However, planning a trip, and building an itinerary can be pretty exhausting. Today's world does not provide us the luxury of investing our time in researching everything about what to do on a trip.

The objective of our project - vacation planner, is to provide users a construct that makes vacation planning easier, organized, flexible and customizable. It aims at offering a wide range of pre-defined packages, and customizable itineraries that can be crafted according to user preferences and budget, thereby saving money and time, and making trip planning hassle-free.

1.1   Purpose

This Software Requirement specification provides a complete description of all the functions and specifications of the vacation planner. This website helps the customers to customize their itinerary with a great ease. The user interface will be simple and easy to understand. It will explain the purpose and features of the system, the interfaces of the system, what the system will do, the constraints under which it must operate and how the system will react to external stimuli. In short, it helps the customers to book a package, build their own package and it also provide a chat box for customer assistance.

1.2 Scope

The Software Requirements Specification captures all the requirements in a single document. The Online Vacation planner facilitates a hassle-free user interface for users to plan their vacation and customize their tour according to their needs. The software is bundled with various features that are described below:

➢　There are 2 basic customers-Anonymous and registered customers.
➢　The system allows Anonymous customers to browse, filter and customize packages according to their needs.
➢　The Itinerary Builder tool allows the customer to craft their own itinerary for the day by choosing preferred activities from a range of activities provided for the preferred destination.
➢　The customer, through the process of account creation, will have the option to become a member of the site.
➢　The customers with accounts get a personalized experience according to their previous trips.
➢　The customers can use the chat bot to guide them according to their budget and pick a travel destination.

1.3　Definitions, Acronyms and Abbreviations

- **Anonymous Customers** – Users who haven't signed up and only have the privilege to browse and customize packages.
- **Registered Customers** – Users who have registered in the site previously and are capable to book a travel package.
- **Chat Bot** – A program that communicates with the user and assists him in picking a suitable travel destination.

1.4　Document Overview

The remainder of this document provides full description of the project vacation planner. It lists all the functions performed by the system and details of each of the system functions and actions in full for the software developer's assistance. These two sections are cross-referenced by topic; to increase understanding by both groups involved.

2. Overall Description

2.1   Product Perspective

Vacation planner acts as complete website for people who are planning to go for a various tourist places around the world. In a very few steps entire booking process for the vacation can be done. The website tries to make process as simple as possible and at the same time not risking the security of data stored in.
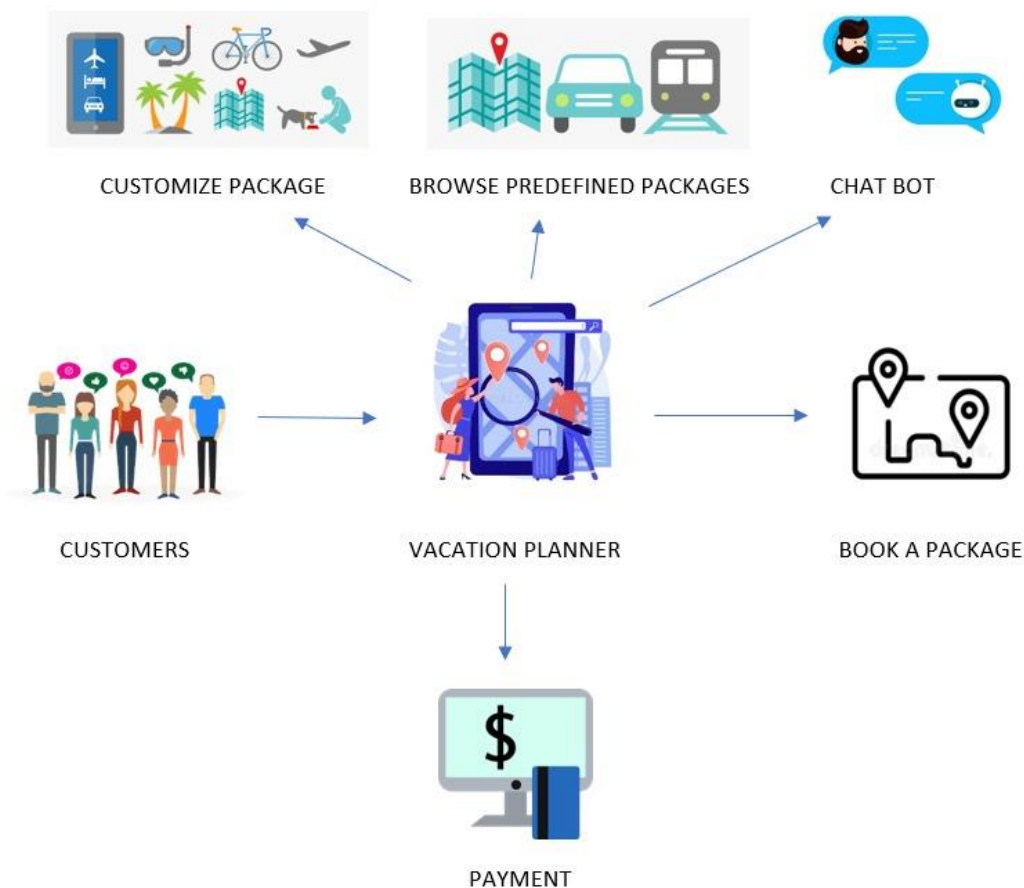
Overview of the proposed system

2.2   Product Functions

The main intention of this project is to provide a more user friendly and efficient online vacation planning system to the users. The Online Vacation Planning System provides both tailor-made travel packages and fully customizable travel packages for the user to choose from. The Product functions are more or less the same as described in the product perspective. The functions of the system include the system providing different types of services based on the type of users [Anonymous user/Registered user/admin].

- ➢ Anonymous users are given the privilege to browse through the packages and customize their own package according to their needs.
- ➢ Registered users are given access to all the services that an anonymous user has access to and an added privilege of booking a travel package.
- ➢ The user's information is securely available in the database that would be linked with the system and is maintained by the admin.
- ➢ It provides all users pre-defined packages where the user can select the desired package.
- ➢ It also provides all users tailor-made packages where the user is given the option to choose from a range of exclusive time and place specific activities for the day.
- ➢ It provides a chat bot which assists the user in finding his/her ideal travel destination and, finding the travel package best suited for the user's preferences and budget all based on a questionnaire.

2.3   User Characteristics

Online Vacation Planner is handled by the admin and users. The administrators of the system to have more knowledge of the internals of the system and is able to rectify the small problems that may arise due to disk crashes, power failures and other catastrophes to maintain the system. The proper user interface, user's manual, online help and the guide to install and maintain the system must be sufficient to educate the users on how to use the system without any problems.

2.4   Constraints

- The information of all the users must be stored in a database that is accessible by the online vacation planner.
- Anonymous users are restricted the privilege of booking a package. They can only browse, filter, customize packages and seek assistance from chat bot.
- The users, customizing their itinerary, can choose a maximum of two activities a day from the list of activities provided.
- The payment methods are restricted to debit/credit card and net banking.
- The online vacation planner is connected to the database and is running all 24 hours a day.
- The users access the online vacation planner from any computer that has Internet browsing capabilities and an Internet connection.

2.5   Assumptions and dependencies

- The users have sufficient knowledge of computers.
- The user's computer should have Internet connection and Internet server capabilities.
- The users know the English language, as the user interface will be provided in English

3.   System Features

3.1   Functional Requirements

- Login facilities are provided by the system.
- A dashboard is provided to the user which helps the user to quickly access all the features of the planner.
- Chat bot for user assistance and recommendation of packages.
- Filter pre-defined packages based on budget, destination, and days.
- On successful payment, a printable pdf of the itinerary is generated for user convenience.
- Billing system to buy a package or choose an appropriate package.
- Access content from any kind of device/environment.

4. Other Non-Functional Requirements

4.1 Usability

- The system shall allow the users to access the system from the Internet using HTML or it's derivative technologies. The system uses a web browser as an interface.
- Since all users are familiar with the general usage of browsers, no specific training is required.
- The system is user friendly and self-explanatory.
- The system works on all environments and devices.

4.2 Reliability

The system has to be very reliable due to the importance of data and the damages incorrect or incomplete data can do.

4.2.1 Availability

The system is available 100% for the user and is used 24 hours a day and 365 days a year. The system shall be operational 24 hours a day and 7 days a week.

4.2.2 Mean Time Between Failures (MTBF)

The system will be developed in such a way that it may fail once in a year.

4.2.3 Mean Time to Repair (MTTR)

Even if the system fails, the system will be recovered back up within an week or less

4.2.4 Accuracy

The accuracy of the system is limited by the accuracy of the speed at which the admin and users use the system.

4.2.5 Maximum Bugs or Defect Rate

Not specified.

4.3 Performance

4.3.1 Response Time

The data shall be accessed and downloaded within seconds across any platform and environments. Since it's a web-based application, the response of the information of the page will be proportional the user's Internet band-width.

4.3.2 Administrator Response

The system shall take as less time as possible to provide service to the administrator or the user.

4.3.3 Throughput

The number of transactions is directly dependent on the number of users.

4.3.4 Capacity

The system is capable of handling 10,000 users at a time.

4.3.5 Resource Utilization

The resources are modified according the user requirements and also according to the courses requested by the users.

4.4 Supportability

The system designers shall take in to considerations the following supportability and technical limitations.

4.4.1 Internet Protocols

The system shall be complying with the TCP/IP protocol standards and shall be designed accordingly.

4.4.2 Billing System

The billing system shall be compatible with the data types and design constraints of the billing system.

4.4.3 Maintenance

The maintenance of the system shall be done as per the maintenance contract made with the users.

4.5 Design Constraints

4.5.1 Software Language Used

The languages that shall be used for developing the Online course reservation System are, Python, HTML, JavaScript, CSS.

4.5.2 Development Tools

Will make use of the available Python interpreter for working Python structures. Also, Will make use of the online references available for developing programs in CSS, HTML and JavaScript.

4.5.3 Class Libraries

Will make use of the existing Python libraries. Also, we need to develop some new libraries for the web-based application.

4.6. Online User Documentation and help system

The system is provided with an online help and customer support system feature which will take in all the user queries, reports and feedbacks. The user can be able to view FAQs to get their queries resolved based on the working of the system. The system contains a user manual page which describes the basic functioning of the system and how the users can interact with the system for efficient usage.