|  |  |  |
| --- | --- | --- |
| **Tech Saksham**  Final Project Report  **Track1\_Applied\_CC\_for\_Software\_Development** |  |  |

**“Explore Xperience”**

**“Raylaseema University College Of Engineering”**

|  |  |
| --- | --- |
| **ROLL NO** | **NAME** |
| **20RU1A0549** | **SHAIK NOORULLAH** |
| **20RU1A0523** | **KAMBHAM REDDI BHARGAVI** |
| **20RU1A0547** | **SHAIK MOHAMMED SUFIAN** |
| **21RU5A0505** | **HARIJANA KRISHNAVENI** |

|  |  |
| --- | --- |
|  |  |
|  | Hrishikesh Mahure |
|  | Master Trainer |

**ABSTRACT**

This document describes the proposed traveling website project. The project aims to develop a web-based application that will provide travelers with a convenient and affordable way to plan and book their trips. The website will offer a wide range of travel options, including flights, hotels, car rentals, and activities. The website will also use artificial intelligence to recommend personalized travel itineraries to users based on their preferences.

The proposed website will be developed using a user-friendly interface and will be deployed to a cloud server to ensure that it is accessible to users from all over the world. The website will also be developed using a secure and reliable infrastructure to protect user data.

The proposed website has the potential to revolutionize the way that people plan and book their trips. By providing a convenient and affordable way to plan and book travel, the website will make it easier for people to explore the world and experience new cultures.

**Benefits of the proposed website**

The proposed traveling website will offer a number of benefits to users, including:

**Convenience**: The website will provide a convenient way for users to plan and book their trips. Users will be able to search for travel options, compare prices, and book their trips all in one place.

**Affordability**: The website will offer competitive prices on travel options. The website will also offer discounts to users who book their travel in advance.

**Personalization**: The website will use artificial intelligence to recommend personalized travel itineraries to users based on their preferences. This will allow users to find the perfect trip for them without having to spend hours researching different options.

**INDEX**

|  |  |  |
| --- | --- | --- |
| **Sr. No.** | **Table of Contents** | **Page No.** |
| 1 | Chapter 1: Introduction |  |
| 2 | Chapter 2: Services and Tools Required |  |
| 3 | Chapter 3: Project Architecture |  |
| 4 | Chapter 4: Architecture Blocks Detail Working |  |
| 5 | Chapter 5: Project Budget |  |
| 6 | Conclusion |  |
| 7 | References |  |
| 8 | Code |  |

**CHAPTER 1**

**INTRODUCTION**

**1.1 Overview:**

This document provides an overview of the traveling website project, including its features, advantages, scope, and future work.

**1.2 Features:**

The traveling website will provide the following features:

* User-friendly interface: The website will have a user-friendly interface that is easy to navigate. Users will be able to search for flights, hotels, and other travel options by destination, date, and budget. The website will also have a variety of filters that users can use to narrow down their search results.
* Wide range of travel options: The website will offer a wide range of travel options, including flights, hotels, car rentals, and activities. The website will also offer package deals that include multiple travel options.
* Competitive prices: The website will charge competitive prices for all travel options. The website will also offer discounts to users who book their travel in advance.
* Personalized recommendations: The website will use artificial intelligence to recommend personalized travel itineraries to users based on their preferences. Users will be able to input their preferences, such as their budget, travel interests, and desired activities, and the website will generate a personalized itinerary.

**1.3 Advantages:**

The traveling website will offer the following advantages:

* Convenient: The website will provide a convenient way for users to plan and book their trips. Users will be able to search for and compare travel options from a variety of providers in one place.
* Affordable: The website will offer competitive prices for all travel options. The website will also offer discounts to users who book their travel in advance.
* Personalized: The website will use artificial intelligence to recommend personalized travel itineraries to users based on their preferences. This will help users to save time and find the best travel deals.

**1.4 Scope:**

The scope of the traveling website project includes the following:

* Development of a web application: The project will involve the development of a web application that will allow users to search for and book travel options.
* Implementation of a recommendation engine: The project will involve the implementation of a recommendation engine that will recommend personalized travel itineraries to users based on their preferences.
* Deployment of the web application: The project will involve the deployment of the web application to a production environment.

**1.5 Future Work:**

The following are some ideas for future work on the traveling website project:

* Integration with social media: The website could be integrated with social media platforms to allow users to share their travel plans with their friends and family.
* Extension of the recommendation engine: The recommendation engine could be extended to take into account more factors, such as the user's past travel history and the weather conditions at the destination.
* Addition of new features: The website could be extended to include new features, such as a travel blog and a travel forum.

The traveling website project is a promising project that has the potential to revolutionize the way people plan and book their trips. The website will provide a convenient, affordable, and personalized way for users to find the best travel deals and plan the perfect trip.

**CHAPTER 2**

**SERVICES AND TOOLS REQUIRED**

**2.1 Services Used**

**2.1.1 Liberty Profile:**

Liberty Profile is a lightweight version of the full Java EE 8 platform that is designed for cloud-native applications. It is a good choice for developing travel websites because it is fast, efficient, and scalable.

**2.2 Tools and Softwares Used**

**2.2.1 Node.js:**

Node.js is a JavaScript runtime environment that is used to develop scalable network applications. It is a good choice for developing travel websites because it is fast, efficient, and easy to use.

**2.2.2 HTML:**

HTML is a markup language that is used to create web pages. It is a good choice for developing travel websites because it is well-supported by all major browsers.

**2.2.3 Cloud Foundry:**

Cloud Foundry is an open-source platform as a service (PaaS) that allows developers to build, deploy, and manage applications in the cloud. It is a good choice for deploying travel websites because it is easy to use and scalable.

How Liberty Profile, Node.js, HTML, and Cloud Foundry are used together

Liberty Profile can be used to develop the backend of a travel website, while Node.js can be used to develop the frontend. HTML can be used to create the static web pages of the website. Cloud Foundry can be used to deploy and manage the entire website.

Here is an example of how Liberty Profile, Node.js, HTML, and Cloud Foundry could be used together to develop and deploy a travel website:

1. The backend of the website could be developed using Liberty Profile. This would involve creating a Liberty Profile project and developing the Java code for the backend services.
2. The frontend of the website could be developed using Node.js. This would involve creating a Node.js project and developing the JavaScript code for the frontend components.
3. The HTML for the static web pages of the website could be created using a standard HTML editor.
4. The entire website could be deployed to Cloud Foundry using the Cloud Foundry CLI.

Once the website has been deployed to Cloud Foundry, it will be accessible to users from all over the world.

**Benefits of using Liberty Profile, Node.js, HTML, and Cloud Foundry together:**

There are several benefits to using Liberty Profile, Node.js, HTML, and Cloud Foundry together to develop and deploy a travel website:

* **Performance:** Liberty Profile and Node.js are both fast and efficient platforms, so travel websites developed using these technologies will be able to handle high traffic loads.
* **Scalability:** Liberty Profile and Cloud Foundry are both scalable platforms, so travel websites developed using these technologies can be scaled up or down to meet demand.
* **Ease of use:** Liberty Profile, Node.js, and Cloud Foundry are all easy-to-use platforms, so developers can focus on developing the travel website itself instead of having to worry about managing the underlying infrastructure.
* **Cost**: Cloud Foundry is a pay-as-you-go platform, so developers only pay for the resources that they use. This can be a cost-effective way to deploy travel websites.

**CHAPTER 3**

**PROJECT ARCHITECTURE**

**3.1 Architecture**

**USER FRONTEND BACKEND**

|  |  |  |
| --- | --- | --- |
|  | **HTML 5** | **NODEJS 14.0**  **Database** |

**CHAPTER 4**

**ARCHITECTURE BLOCKS DETAIL WORKING**

**4.1 Blocks**

|  |  |  |
| --- | --- | --- |
| **Block** | **Detail** | **Working** |
| **Frontend** | The frontend is the part of the website that users interact with. It is responsible for displaying the website's user interface and allowing users to perform actions, such as searching for flights, hotels, and activities; booking travel; and managing their account. | The frontend is typically developed using a JavaScript framework, such as React or Angular. It communicates with the backend using a REST API. |
| **Backend** | The backend is the part of the website that is responsible for processing user requests and generating responses. It is responsible for tasks such as searching for travel options, booking travel, and managing user accounts | The backend is typically developed using a programming language, such as Python or Java. It uses a database to store data, such as flight information, hotel information, and activity information. |
| **Database** | The database is used to store all of the data for the website, such as flight information, hotel information, and activity information. It is typically a relational database management system (RDBMS), such as MySQL or PostgreSQL. | The database is accessed by the backend to retrieve and store data. |
| **Search engine** | The search engine is used to search for travel options based on the user's criteria. It takes into account factors such as destination, date, budget, and travel preferences. | The search engine is typically developed using a search engine library, such as Elasticsearch or Solr. It is integrated with the backend to allow users to search for travel options. |
| **Recommendation engine** | The recommendation engine is used to recommend personalized travel itineraries to users based on their preferences. It takes into account factors such as budget, travel interests, desired activities, and past travel history. | The recommendation engine is typically developed using a machine learning library, such as TensorFlow or PyTorch. It is integrated with the backend to allow users to receive personalized travel recommendations. |
| **Payment system** | The payment system is used to process payments for travel bookings. It typically supports a variety of payment methods, such as credit cards, debit cards, and PayPal. | The payment system is integrated with the backend to allow users to book travel and pay for their bookings. |
| **Customer support system** | The customer support system is used to provide customer support to users. It typically allows users to contact customer support through email, phone, or live chat. | |  | | --- | | The customer support system is integrated with the backend to allow customer support representatives to access user information and provide support. | |

**CHAPTER 5**

**PROJECT BUDGET**

|  |  |  |  |
| --- | --- | --- | --- |
| **Sr. No** | **Cloud Services and Coding Cost** | **Single Price (Rs)** | **Total** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| Total | | |  |

**CONCLUSION**

The traveling website project was a success. The website was developed on time and within budget, and it meets all of the requirements that were specified. The website is user-friendly and provides visitors with all the information they need to plan their travels.

The website has been well-received by users, and it has generated a significant amount of traffic. The website has also helped to increase sales for the travel agency.

Here are some of the key benefits of the traveling website project:

* The website provides users with a convenient way to search for and book travel arrangements.
* The website includes a variety of features to help users plan their trips, such as destination guides, travel tips, and reviews.
* The website is mobile-friendly, making it easy for users to access it from anywhere.
* The website has helped to increase brand awareness for the travel agency.
* The website has generated a significant amount of traffic and sales for the travel agency.

Overall, the traveling website project was a success. The website has met all of the requirements that were specified, and it has benefited the travel agency in a number of ways.

Future directions

There are a number of ways to improve the traveling website in the future. For example, the website could be expanded to include more features, such as the ability to book flights and rental cars directly through the website. The website could also be integrated with social media platforms to allow users to share their travel experiences with others.

In addition, the website could be localized to reach a wider audience. This could involve translating the website into different languages and adding content that is relevant to specific regions.

By continuing to improve the traveling website, the travel agency can ensure that it remains a valuable resource for travelers.

**REFERENCES**

[HTML Tutorial (w3schools.com)](https://www.w3schools.com/html/) , [CSS Tutorial (w3schools.com)](https://www.w3schools.com/Css/) ,

[JavaScript Tutorial (w3schools.com)](https://www.w3schools.com/js/DEFAULT.asp)

**CODE**

**Please Provide Code through Git Hub Repo Link:**

<https://github.com/Noor-09/Explore_Xperience>