Abstract

Tourism is a vital industry that significantly contributes to the economy of many countries. In our current day, social media became a main source of information for travelers seeking recommendations and reviews about various destinations. However, the current social media platforms often lack dedicated spaces that focus solely on promoting tourism. The purpose of this report is to address the development of a social media app along with an admin panel webpage. The primary objective behind this project is to provide a tourism-oriented platform that fosters user engagement within the travel and blogging community. This app will go beyond standard social media features, allowing users to share travel experiences, interact with other travelers and tourism-related pages, and discover new destinations.

The problem countered by this project is the scarcity of social media platforms that promote tourism which creates a struggle for travelers to find communities that shares their interests and offers valuable insights. Additionally, the existing platforms lack authenticity, unbiased opinions. These platforms market and sponsor content that neglect negative aspects of a location, which portrays an idealized picture of the place. Hence, leading to unrealistic expectations and potential disappointment.

This project aims to address these issues by developing a social media platform specifically designed to promote tourism. The platform will focus on providing travelers with a place to share, chat, discover authentic reviews and information about various destinations. By offering a community of genuine travel enthusiasts and bloggers, the platform will serve as a reliable source for people to explore new places confidently. Alongside with the platform, the accompanying admin panel will serve as a way of filtering and moderating content to keep the app’s space safe, positive, and to enforce the application’s policies.

The app while incorporating standard social media platform features such as likes, comments, and chats, offers some unique features like posting your own experience, moments on the page directly, also these posts will be available in the user’s profile along his activities. An activity is either a user’s documentation to a certain place (or an event in it) regardless of him owning the place or not, or a capturing of his experience and moments in this place. An Activity is made up of a bunch of media with detailed descriptions, is it basically the pillar of the application where everything from descriptions, critiques, and information is done. Activities similar to posts, can be liked and commented on, also they can be bookmarked.

Furthermore, activities are categorized by their home cities and types each into a city and an activityType respectively. This approach makes the app more organized, the search more easy, and the usage friendly.

This project promises quite well results. The app provided users with a well tourist-oriented community that shares true unhindered opinions and offer valuable insights about destinations.

In conclusion, this project faces the void in tourism, blogging, and travelling that the other platforms don’t take put in their considerations. The project’s approach delivers a community that ensures valuable interactions where unbiased, unsponsored endorsements and insights, descriptions, information for famous destinations are given.

General Introduction

The importance of this project is reflected by the lack of social media platforms that shed light on tourism and exploration directly and fairly. This lack escalates the need to a community where travelers among users can interact with each other, post their honest opinions on different locations, and exchange information. This project ensures all of the above problems are solved by supplying an application that has the same anatomy and backbone of modern social media platforms with some extra perks. Along with an admin panel that is responsible for monitoring and moderating the content for a friendly, positive, and policy abiding environment.

The development process for this project follows a systematic and structured approach. It begins with requirement gathering which is identifying the key features and functionalities of the social media platform and the admin panel side by side with the preferences and necessities of potential users. Then the development phase starts. It involves the creation of a user-friendly interface implementing all the functionalities. Then, the project is tested heavily and sent to users to obtain feedback to allow more improvement. Finally, the project ends with an evaluation of the results, effects, and recommendations for more improvement and better versions to come.

**Summary of Chapters Included in the Report:**

**1-System Planning:** Chapter 1 provides a comprehensive overview of the project aim, objectives, scope, subsystems, and development environment. It sets the foundation for the subsequent chapters, laying out the groundwork for the successful implementation of the app.

**2-Related Work:** Chapter 2 provides an overview of existing social media platforms. The chapter highlights the similarities and differences between these platforms and our project. Overall, Chapter 2 sets the foundation for understanding the context and inspiration behind our project within the landscape of social media platforms.

**3-Requirements Analysis:** Chapter 3, "Requirements Analysis," is dedicated to gathering and analyzing the essential requirements for social media app. It emphasizes the significance of this process in driving the design and development of a high-quality system. Through techniques like research and observation, we gain valuable insights into the project's needs and complexities. The chapter also introduces visual representations such as use case diagrams, class diagrams and DFDs to aid in requirements validation and communication. By prioritizing requirements analysis, we ensure the alignment of our solution with the client's vision and objectives, setting the stage for successful system design and development.

**4-System Design**: Chapter 4 dives into the system design aspect of the project. It outlines the process of defining the system's architecture, components, modules, interfaces, and data to meet the specified requirements. The chapter provides an overview of the data dictionary, which showcases the database structure, including field names, data types, descriptions, keys, and references.

Furthermore, the chapter presents the Entity-Relationship (ER) diagram for both the website and the mobile app. These diagrams illustrate the flow of data and depict the relationships between the various tables in the system. The ER diagrams highlight the connections, such as one-to-one, one-to-many, and many-to-many relationships, which are determined based on specific project requirements.

The chapter concludes by showcasing the ER diagrams for the website and the mobile app, providing a visual representation of the data structure and table relationships.

In summary, Chapter 4 provides a comprehensive understanding of the system design process, including the data dictionary, ER diagrams for the website and mobile app, and the overall architecture of the project

**5- Implementation**: Chapter 5 focuses on the implementation of the project, covering the tools, techniques, and languages used for website and mobile app development. The chapter emphasizes the importance of selecting appropriate tools for a seamless user experience.

The website utilizes React.js for interactive interfaces, HTML/CSS for structure and design, Laravel for server-side logic, and SQL for efficient data management. Security measures like hashed passwords and authentication/authorization mechanisms are implemented.

For the mobile app, Flutter is used for Android development, and Firebase Database for cloud storage. Similar to the website, authentication and authorization mechanisms are in place to protect user data.

The chapter also discusses the languages employed. HTML, CSS, JavaScript, and React.js are used for the website's frontend, while Laravel handles server-side logic. The mobile app is developed using Flutter.

In addition, the chapter includes code snippets and explanations. These snippets demonstrate database procedures such as user registration and book retrieval and other, offering insight into the project's functionality.

Overall, Chapter 5 provides a concise overview of the implementation process, highlighting the tools, techniques, languages, and database procedures used to create a secure and user-friendly online virtual book club.

**6**- **Testing and Results:** Chapter 6 of this project focuses on Testing and Results. It includes User's Tests conducted on both the website and the mobile app. The website's User's Test covers various tested pages and their performance. In the User's Test section of the mobile app, we evaluated the various activities and features of the app. We examined how users interacted with the app, their experience in navigating through different screens. Additionally, the Admin Test examines the admin panel pages of the website. Overall, this chapter provides valuable insights into the functionality, usability, and user experience of the website and mobile app, aiding in further improvements if needed.

**Chapter: 1 System Planning**

**1.1 Introduction**

This chapter serves as an introduction to the project's aims, objectives, and scope. It provides an overview of the project's modules.

**1.2 Project Aims and Objectives**

Mashwerna, a social media app aims to add a platform where users can interact, get authentic reviews for destinations far from sponsored and paid content. The main objectives of the project are to promote tourism, provide a platform for users to share their travel experiences, reviews, and recommendations.

**1.2.1 Aim: Promoting Reading Habits and Community Engagement**

The primary aim of the project is to promote a safe, authentic community for tourists, bloggers, enthusiasts… encompassed with standard social media features. By providing an online platform for them to connect, share recommendations, and chat.

**1.2.2 Objectives:**

**1.2.2.1 Developing a Website and Mobile App for Mashwerna**

To achieve the project's goals, a website and a mobile app will be developed. These platforms will serve as a platform where users can interact, post, inquire from each other.

**1.2.2.2 User-Friendly Interface**

The mobile app features a user-friendly interface that allows users to easily browse through the platform. They will be able to search for activities, cities, view their details, follow users, comment and like activities and posts, create their own, bookmark activities, and chat.

**1.2.2.3 Admin Panel for Content Management and User Moderation**

To ensure smooth operation and user safety, an admin panel will be implemented. This panel will empower administrators to monitor and moderate user content, enforce policies, guidelines, and maintain a positive and inclusive environment for all users.

**1.3 Project Scope:**

The project is a means to develop an online platform where users can interact, get authentic reviews for destinations far from sponsored and paid content. The platform consists of the following modules:

**1.3.1 User Subsystem:**

**-Guests: Guests can only browse through the app with no other action.**

- **Guest Registratio**n: A guest can create an account and become a user.

- Users can chat with, follow other members.

- Users can create, update, delete their own activities, and comment, like, bookmark activities.

- Users can create, delete their own posts, and comment, like posts.

- Activity owners can delete posts and comments on their activities.

- Users can manage their account settings, update their profiles, and control their personal information.

**1.3.2 Admin Subsystem:**

- Activity and Post Management: Admins can view all activities and posts of users and delete inappropriate ones.

-City Management: Admins can search, view, create, edit, and delete cities.

- Activitytypes Management: Admins can search, view, create, edit, and delete activitytypes.

- Comment Management: Admins can view all comments on activities and post, delete all inappropriate comments.

- User Management: Admins can search users, promote/demote them, and delete users based on their behavior or violation of rules.

**1.4 Development Environment**

**1.4.1 Introduction: Programming Languages, Database, and Software**

In this section, we will introduce the programming languages, database, and software used to develop the Mashwerna platform. These technologies play an important role in building both the website and mobile app, ensuring their functionality and performance.

**1.4.2 Programming Languages**

The project utilizes different programming languages for the website and mobile app development. Let's explore each of them:

**1.4.2.1 Website - Frontend: React.js**

For the website's frontend development, React.js is used as the primary programming language. React.js is a popular JavaScript library that allows for the creation of interactive and dynamic user interfaces. It provides a component-based approach and a virtual DOM for efficient rendering, resulting in a smooth user experience.

**1.4.2.2 Mobile App - Frontend: Flutter**

Flutter is chosen as the framework for the mobile application frontend development. Developed by Google, Flutter's cross-platform capabilities allow developers to write code once and deploy it on both Android and iOS platforms using the Dart programming language. Its fast development cycle with hot reload enhances productivity by enabling instant feedback on UI changes. Flutter's extensive widget library ensures a native look and feel across devices, supporting smooth animations and transitions essential for delivering a responsive and visually appealing user experience. Its reactive framework architecture and strong community support further contribute to building a robust and modern mobile application efficiently for the project.

**1.4.2.3 Backend: Laravel**

Laravel is employed as the backend framework for the app and website. Laravel is a powerful server-side PHP framework designed to simplify web development with clean, expressive syntax. Its comprehensive set of tools and features, including robust authentication, efficient API handling, and seamless database interaction, make it an ideal choice for managing server-side operations. Laravel's modular architecture and built-in functionalities ensure the application is secure, scalable, and easy to maintain, significantly benefiting the project's overall efficiency and effectiveness.

**1.4.3 Database**

To fetch and store data, phpMyAdmin is used. phpMyAdmin is the go-to database management tool for PHP-based backend systems. It provides a user-friendly web interface to administer MySQL databases, seamlessly integrating with PHP for efficient data handling and dynamic content generation in web applications.

**1.4.4 Software**

**1.4.4.1 Visual Studio Code**

For the website and app development, Visual Studio Code is utilized as the software platform. It is a lightweight and flexible code editor renowned for its extensive features such as syntax highlighting, code debugging, integration with version control systems, and a diverse set of tools for both frontend and backend development.

**1.5 Summary**

This chapter provides an overview of the project's scope, objectives, and aims, as well as an in-depth description of the development environment, encompassing the chosen programming language, database, and methodology utilized.