**Software Engineering**



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**E- Sports Store**

**Introduction**

This document outlines the development plan for the "Online Sport Store" project, aimed at creating a comprehensive online sports system. The system will provide users with the ability to purchase sports equipment, apparel, and accessories. Additionally, users can avail themselves of features such as booking sports facilities and registering for sports events. This plan is intended for software engineers, designers, and project investors.

**Overall Description**

In a world where online shopping has become a norm, sports enthusiasts face the challenge of finding a convenient platform for their sports-related needs. The "Online Sport Store" aims to address this by offering a user-friendly and feature-rich system, allowing customers to effortlessly explore and purchase a wide range of sports products.

**Customers**

The target customers for the "Online Sport Store" are individuals passionate about sports who prefer the convenience of online shopping. These customers are likely to be tech-savvy and comfortable using a mobile app to make their sports-related purchases.

**Platform**

The app will be developed using the Flutter framework, ensuring a cross-platform solution compatible with both iOS and Android. Leveraging Flutter's capabilities, the development process will focus on delivering a seamless user experience across different devices. The app will connect to Firebase, serving as the backend, to handle data storage and retrieval through real-time databases and secure authentication mechanisms. This combination of Flutter and Firebase aims to provide an efficient and scalable solution for the Online Sport Store app.

**Development Responsibilities**

The development team for “E- Sports Store” will be responsible for programming the app, designing the user interface, and testing the app for quality assurance

**User Classes and Characteristics**

The Online Sport Store app will cater to two primary user roles: customers and administrators. Customers will enjoy full access to the app's features, enabling them to explore, purchase sports products, and utilize various functionalities. On the other hand, administrators will possess additional privileges, including the ability to manage product listings, apply discounts, and oversee the overall system's functionality. This user classification ensures a tailored experience for both regular users and those responsible for overseeing the platform's operations

**Internal Interfaces**

**User Interfaces**

Back-end software: FireBase

Database software: FireBase

Front-end software: Flutter

**Hardware Interfaces**

IOS and Android mobile devices

**Functional Requirements (FR)**

The system will include the following key functionalities:

**User Registration:**

Users can create an account using personal details, including a unique username, password, and email address.

**User Authentication:**

A secure login system will verify the identity of returning users using their username and password.

**Profile Management:**

Users can edit their profiles, including details such as shipping address, contact number, and password.

**Product Browsing:**

Users can browse through different sports products, categorized appropriately (footwear, equipment).

**Product Details:**

Detailed information such as price, product specifications, size, and high-quality images will be displayed for each product.

**Shopping Cart:**

Users can add or remove products from a virtual shopping cart, with real-time updates as items are added or removed.

**Checkout Process:**

Users can finalize purchases, selecting shipping options and inputting payment details securely.

**Order Confirmation:**

Users will receive an order confirmation with the order number, product details, and expected delivery time after placing an order.

**Order Tracking:**

Post-purchase, users can track their order's delivery status.

**Search Functionality:**

A dynamic search bar will help users quickly find specific products using keywords.

**Non-Functional Requirements (NFR)**

**Usability:**

The system should be user-friendly and intuitive for easy learning and usage.

**Security:**

The system should be well-protected against unauthorized access, data breaches, and other potential threats.

**Performance:**

The system should be responsive and efficient, ensuring quick operations.

**Maintainability:**

Developers should be able to understand, update, or fix the code base with minimal effort and disruption.

**Scalability:**

The system should have the ability to grow and handle increased demand, supporting more users, processing more transactions, or storing more data.