

# **Software Requirements Specification:**

## **Functional prerequisites:**

### **1)User registration:**

Using their name, email address, and password, users should be able to create an account on the app.

### **2)GPS tracking:**

The application must be able to follow the user's whereabouts and show it on a map.

### **3)Tracking of speed and distance traveled:**

The application should keep track of the user's speed and the distance they travel while riding, displaying the data instantly.

### **4)Ride history:**

The user's past rides should be kept on file by the app, together with the average speed, distance traveled, and route taken.

## **Non-Functional Requirements:**

### **1)Performance:**

The application must be quick to respond and offer precise, live tracking of the user's whereabouts and movements.

### **2)Usability:**

Users should be able to explore and access different elements of the app with ease thanks to its intuitive and user- friendly interface.

### **3)Compatibility:**

The application ought to work on iOS and Android smartphones.

### **4)Security:**

The application must guarantee the confidentiality and security of user data, encompassing their ride history and personal details.

### **5)Reliability:**

During use, the app should operate consistently and not crash or freeze.

### **6)Scalability:**

There should be no performance problems when a big number of users and their ride data are handled by the app.

### **7)Accessibility:**

To guarantee that users with impairments can access and use the features efficiently, the app should be made with their needs in mind.

## **Stakeholders:**

- ✚ Users who depend on a cycling app for navigation, recording rides, route planning, accessing bike-sharing services, and socializing with other cyclists are the main stakeholders in the app.
- ✚ The application ought to address their requirements, have an easy-to-use interface, and provide useful features and functionalities.

## **Timeline:**

- 1) Research and planning (2-4 weeks).
- 2) Wireframing and Design (2-4 weeks).
- 3) Growth (4 to 8 weeks).
- 4) Beta Testing (2 to 4 weeks).
- 5) Complete and Release (1 to 2 weeks).

## **Budget:**

### **1) Development:**

Depending on the intricacy of the program, hiring a seasoned firm or independent developer may cost anywhere from 15 to 20 Lakhs.

### **2) Design:**

An app's user experience greatly depends on its design. Hiring a UI/UX designer might cost anywhere from 25 to 30 Lakhs depending on the complexity and level of talent required for the design.

### **3) Testing and Quality Assurance:**

It is critical to extensively test the app to make sure it runs smoothly across a variety of platforms and devices. The price may vary from 34 to 40 Lakhs based on the extent of testing that is necessary.

**Version:**

**1.0 approved**

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**Organization:**

**Chalao**

## **1) Table of Contents**

### **Introduction(why we should use this Chalao app):**

- 1)Users can quickly locate, hire, and return bicycles on-demand with the help of the bicycle rental app.
- 2)It acts as a platform to link prospective customers and bicycle rental companies.
- 3)Typical features offered by the app include real-time bicycle availability, pricing details, the option to reserve or unlock bicycles, and integration with a map to locate local rental stations.
- 4)The goal is to encourage more people to adopt bicycles as a source of transportation or for recreational activities by making bicycle rentals easy and hassle-free for customers.

## **1.1) Purpose of bicycle rental (Chalao)app**

### **Cost-effective:**

Compared to buying and maintaining a personal bicycle, renting bicycles via an app is frequently more economical.

Bicycle rentals are available for short-term or even daily rentals, which removes the need for long-term investments in bicycle acquisition and upkeep.

### **Accessibility:**

Users may easily locate and rent a bicycle wherever they are thanks to bicycle rental apps, which make bicycles available in a variety of locations. This accessibility makes traveling easier and is especially helpful in crowded urban areas or popular tourist attractions.

### **Flexibility:**

Users can select the ideal bicycle type based on their needs by using rental apps, which provide a large selection of bicycle possibilities. Users can choose the best bike for their needs, whether it's a road bike, mountain bike, or an easygoing city bike.

### **Convenience:**

Users may search and hire bicycles more easily with the help of bicycle rental applications, saving them the trouble of visiting a physical rental business. Users only need to download the app, register, and rent a bike whenever and wherever they like.

## **1.2)Document Conventions**

### **New feedback (Teacher and Classmates):**

- + GPS tracking.
- + Tracking of speed and distance traveled.

## **1.3)Intended Audience and Reading Suggestions**

Only those who use android phone can take advantage of this Chalao App.

## **1.4) Product Scope**

- + Bicycle rental apps are not yet popular in Bangladesh. But if we want to go somewhere else at a low cost, then this app is very necessary.
- + If we add a tracker system feature to this app, then the security of our app will be improved.

## **1.5)References**

- + An application on a smartphone that makes it simple for users to hire bicycles for a set amount of time is called a bicycle rental app.
- + It typically provides a practical and easy-to-use interface that allows customers to peruse the available bicycles,

choose their preferred rental length, pay, and unlock their selected bike at the assigned rental station.

- ✚ The app might include functions like real-time bicycle location monitoring, which would make it simple for users to locate the closest bike. It might also have extra services like customer service, automatic payment processing, and ride distance tracking.
- ✚ Any bicycle rental app must prioritize safety, thus its features may include advice on how to ride safely, wear a helmet, obey traffic laws, and notify the supplier of any maintenance problems or damages.
- ✚ All things considered, a bicycle rental app provides a practical means of obtaining bicycles whenever needed, which makes it a well-liked option for both visitors touring new cities and residents seeking out an environmentally friendly mode of transportation.

# UseCase Diagram

