

PROBLEM STATEMENT: Cycle Sharing App

TEAM NAME: **Magenta**

IDEA:

- **Log in/Sign Up**

Log in/Sign Up feature will be given in the app. The user have to upload some important documents like Aadhar Card, College /School ID card. Those who want Schedule booking can book cycles in advance through this App, they have to mention the date & if it is for long duration the user have to specify no. of days of booking.

- **Show Locations of cycle stands**

There will be Specific cycle stands from which you can take cycles in rent. The Locations of these Cycle stands will be displayed on the app to the users. Those who want to take cycles in rent can take the cycles from the nearest cycle stands.

- **Availability and drop off check**

The Available number of cycles will be displayed to users in the app. The Cycles taken from any stand can be returned in to any of the nearest stand.

- **Wireless locking & Unlocking feature/unlock by QR scan**

Wireless locking feature using QR scan will be used. You don't have to use keys for unlocking. At the time of booking the user will be given the cycle number and when he reaches near the cycle, a QR code will be embedded in the cycle which the user

will scan to unlock and if it matches then the cycle will automatically unlock.

- **Immediate book / schedule booking.**

Cycles should be of two categories one for immediate booking and other for Schedule Booking. Those who have Schedule booking can take cycles in rent which are only for Schedule booking. Likewise those who have immediate booking can only take cycles which are only for immediate booking.

1. **Expected Duration**

If someone want to take a cycle in rent for an Expected Duration then he should mention the duration of Rent.

2. **Long Term booking – in days**

In Case anybody wants to rent a cycle for a long duration then he have to mention the days for which he is taking it as rent.

- **Immediate help – cycle breakdown**

In case of cycle breakdown the Admin which is nearer to the location will receive a notification and he will help the customer.

- **Fare system km and duration wise**

Fare will be charged on the basis of kilometres travelled and duration of rent in hours. If someone have taken a cycle in rent for a Day then he has to pay on Day rent Basis.

- **Payment – online/cash** – advance payment to be done while booking and money return while drop off.

Payment can be done either in the form of cash or Online using payment gateway and also you can swipe your Card after

returning the cycle. Amount to be paid will be displayed and you will have to pay accordingly.

Admin

- **Tracking cycle feature for admin by GPS**

Every cycle will be tracked by the admin using GPS to help the customer In case of any breakdown or any kind of problem .Also to ensure that all the cycles are being returned.

- **Show Help Requests** – Deploy help to location and show waiting time.

A number of admins will be given. In case any help the Admin which is nearer to the user will provide help. The Waiting time will be displayed to the user in the app.

TECHNOLOGIES STACK:

1. ANDROID PROGRAMMING using Android Studio with Java
2. Google API for maps and GPS
3. Google Firebase

TEAM DETAILS:

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