



Astro Ride

An eco-free ride

Name - Sahil



Problem Statement

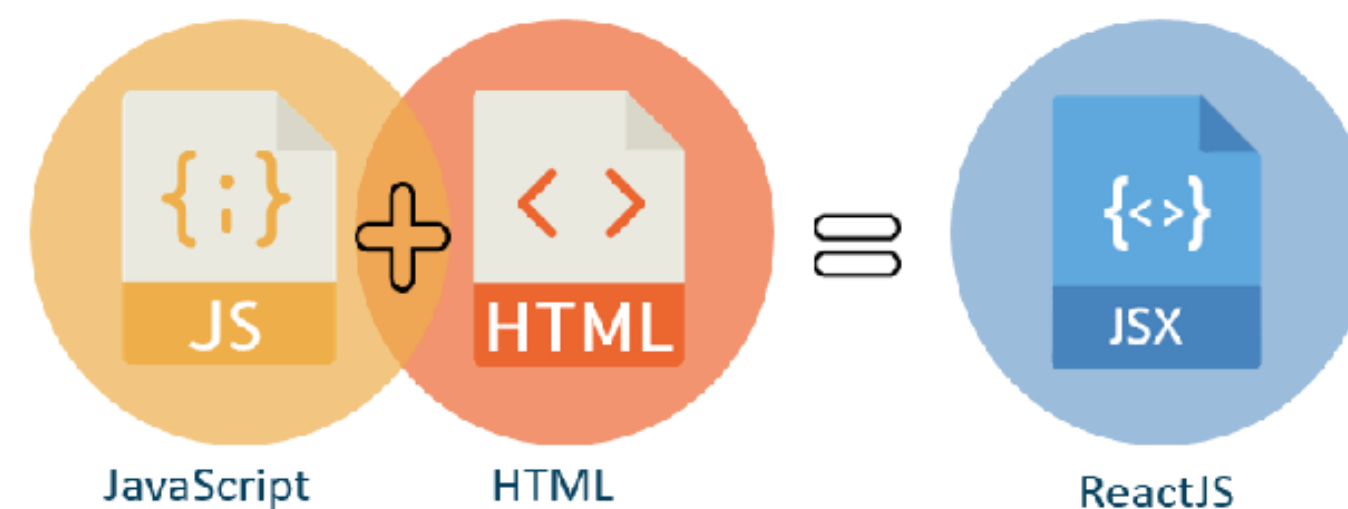
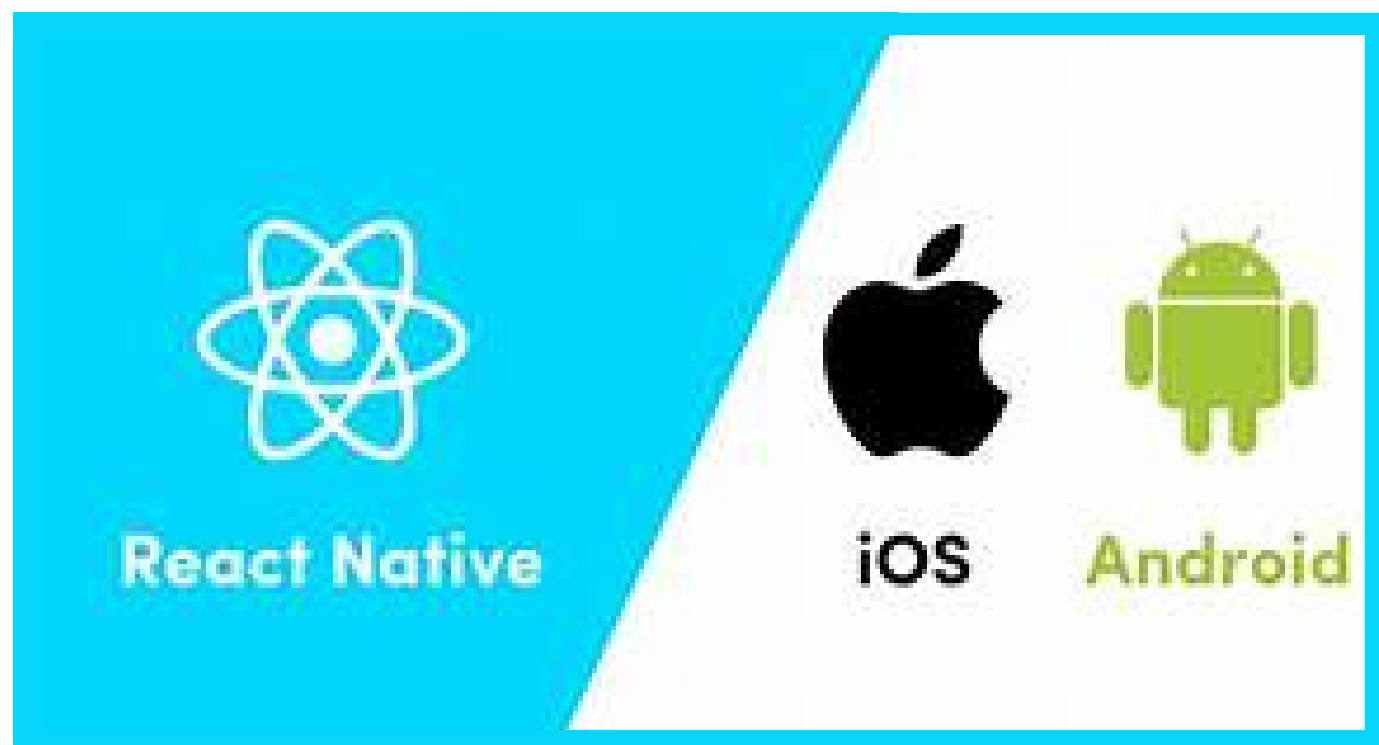
- A cross platform management system to rent an electric bike, assuming there are e-bike stations installed in the city.
- User can scan the QR code from the bike to rent a ride.
- On reaching the destination user has to again scan the QR code to end the ride.

MOTIVATION

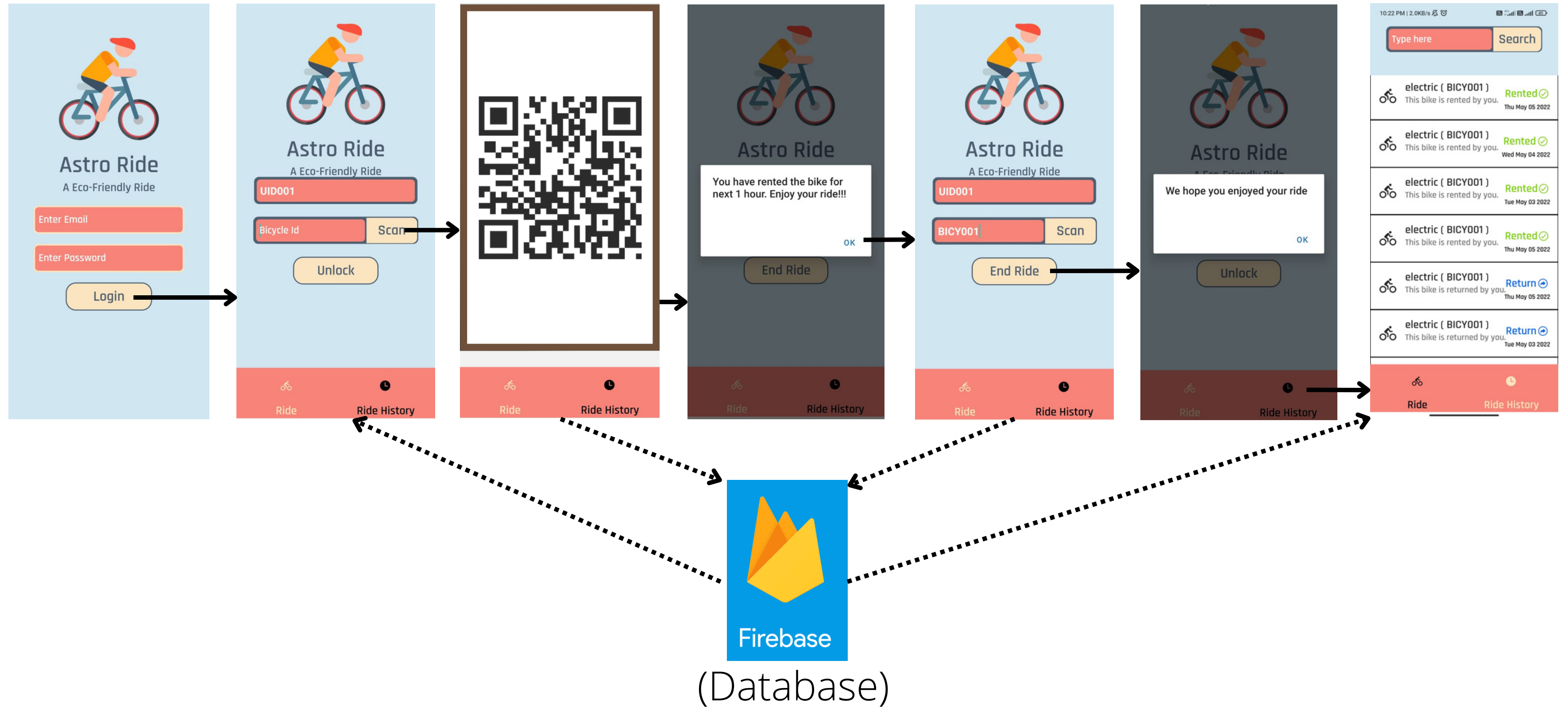
- The main motivation is to have an e-bike management system in our campus.
- It is designed for a quick ride to go to a nearby location.
- For the students who need to visit a nearby shop.
- It would be beneficial for the general population as well.



Platforms and Languages used



Framework



Modules and Submodules

Login Screen

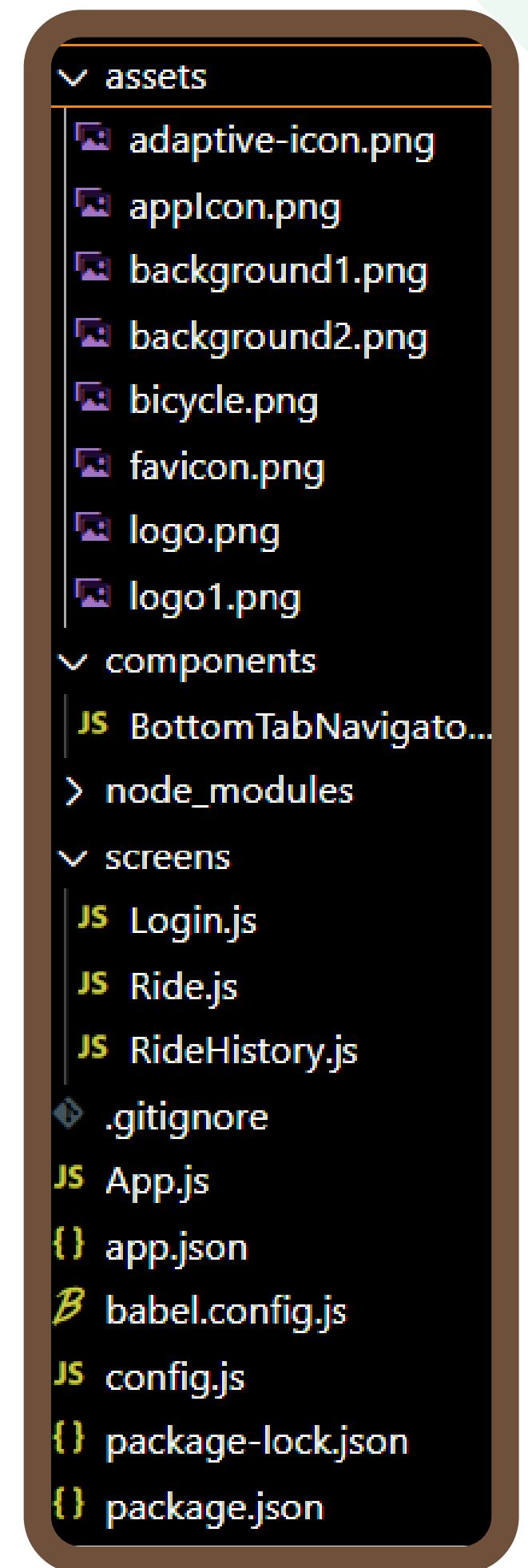
- Input Email and Password
- Authenticating using firebase authentication

Ride Screen

- Adding user data from the database by comparing email.
- Get camera permissions and scanning the barcode.
- After pressing unlock -> handleTransaction

HandleTransaction

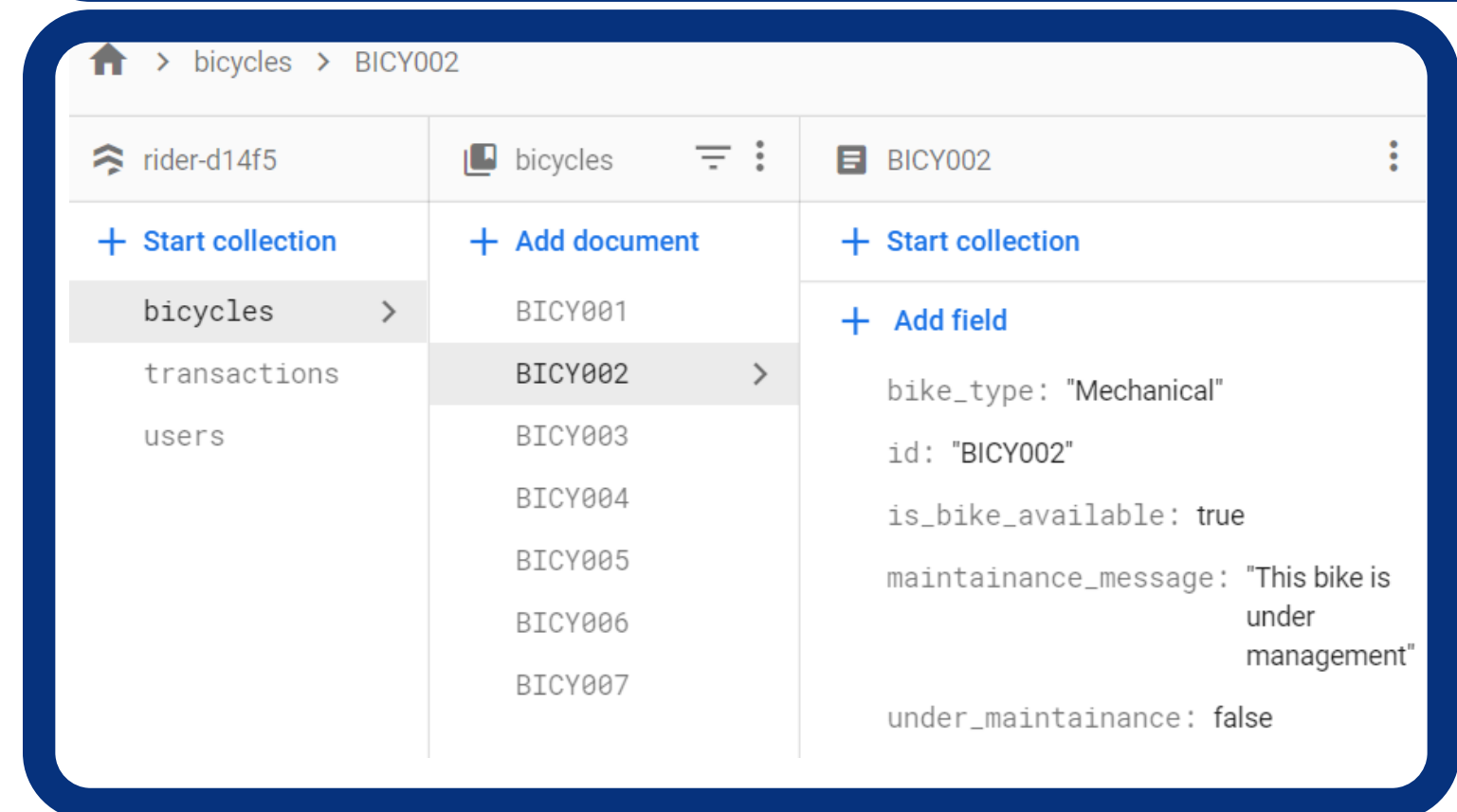
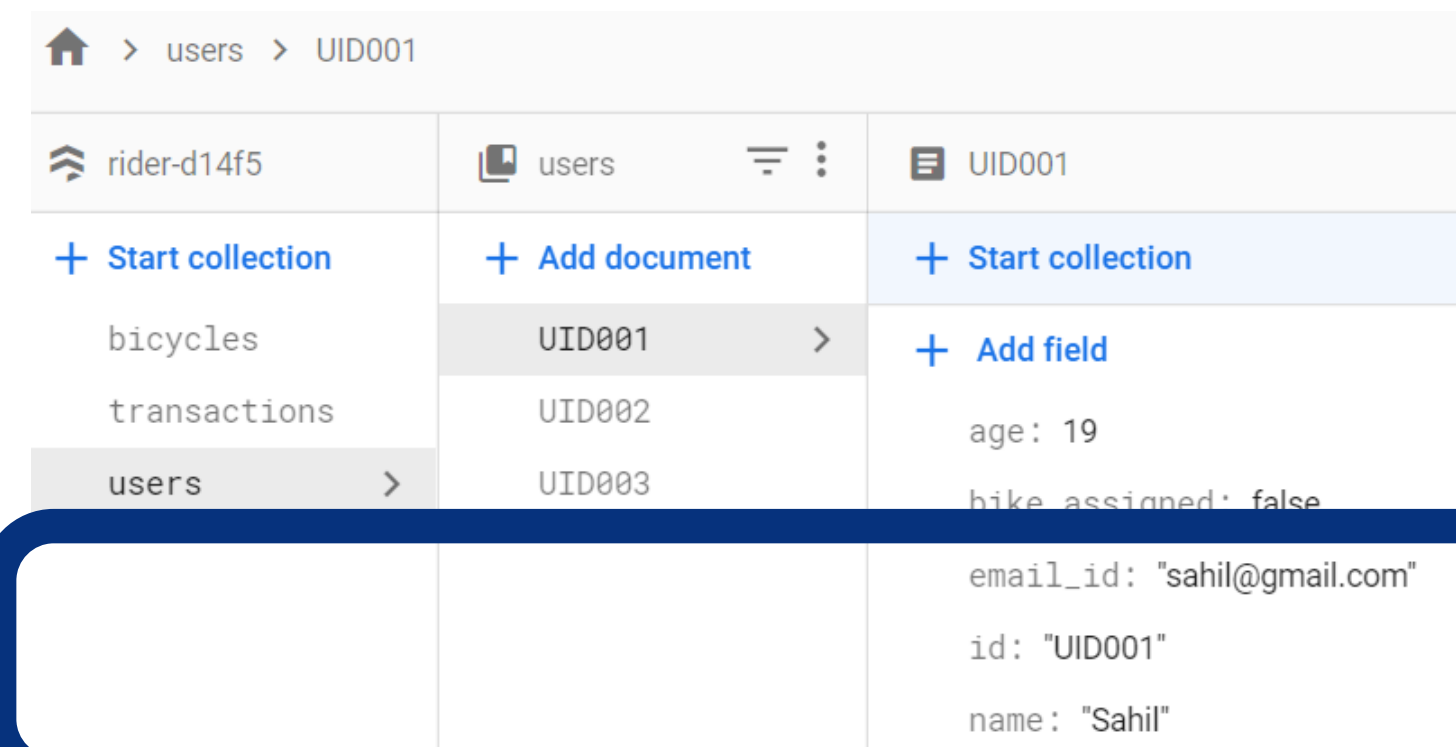
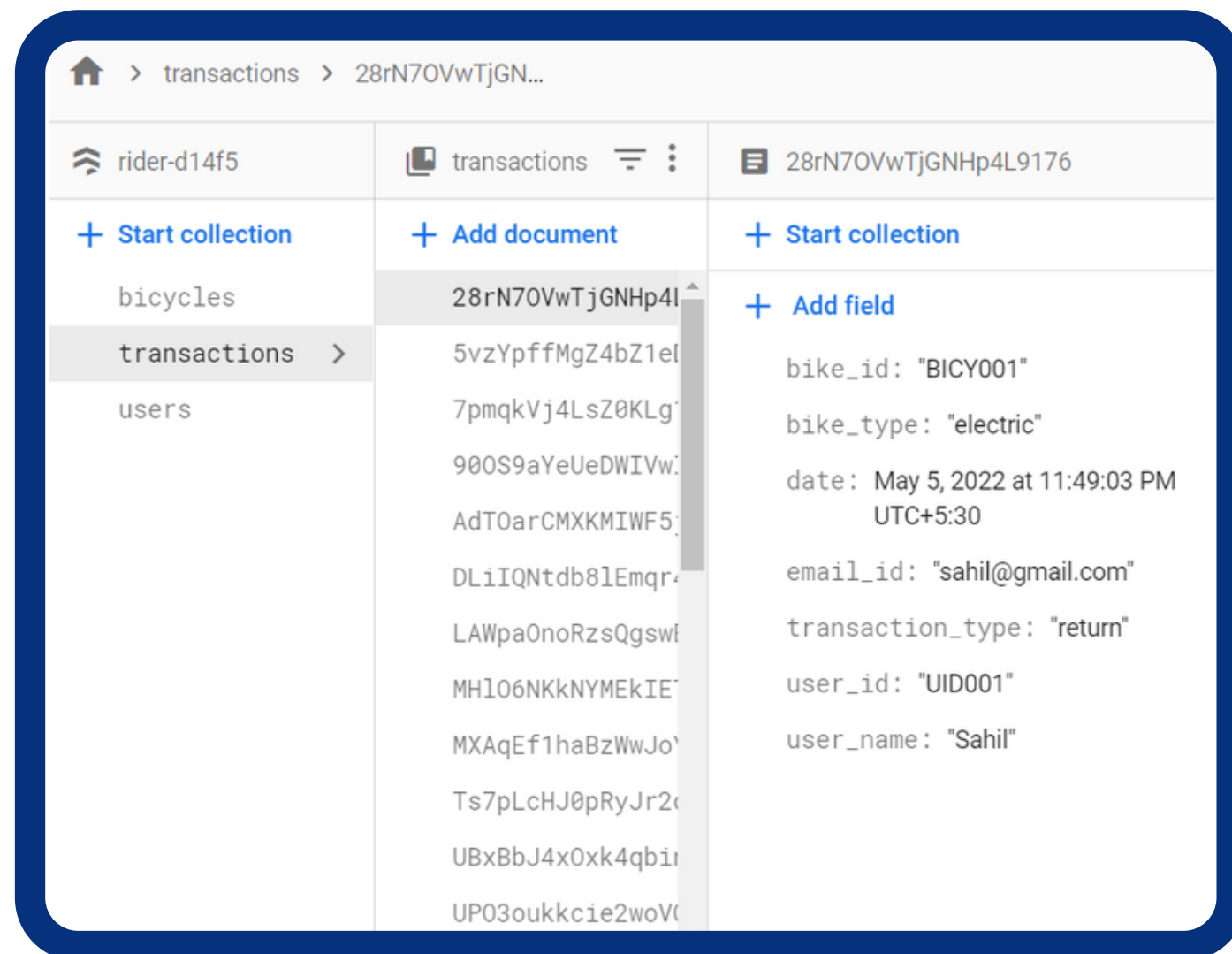
- Get Bike details
- transaction Type -> checkBikeAvailability
- if bike is available then returns rented else return
- if (transaction Type = false or underMaintainance) then, show error message.
- else (if transaction Type = "rented"), assign the bike after checking user eligibility to start ride.
- else (if transaction Type = "return"), end the ride after checking user eligibility to end ride.



Modules and Submodules

Firestore Database Configuration

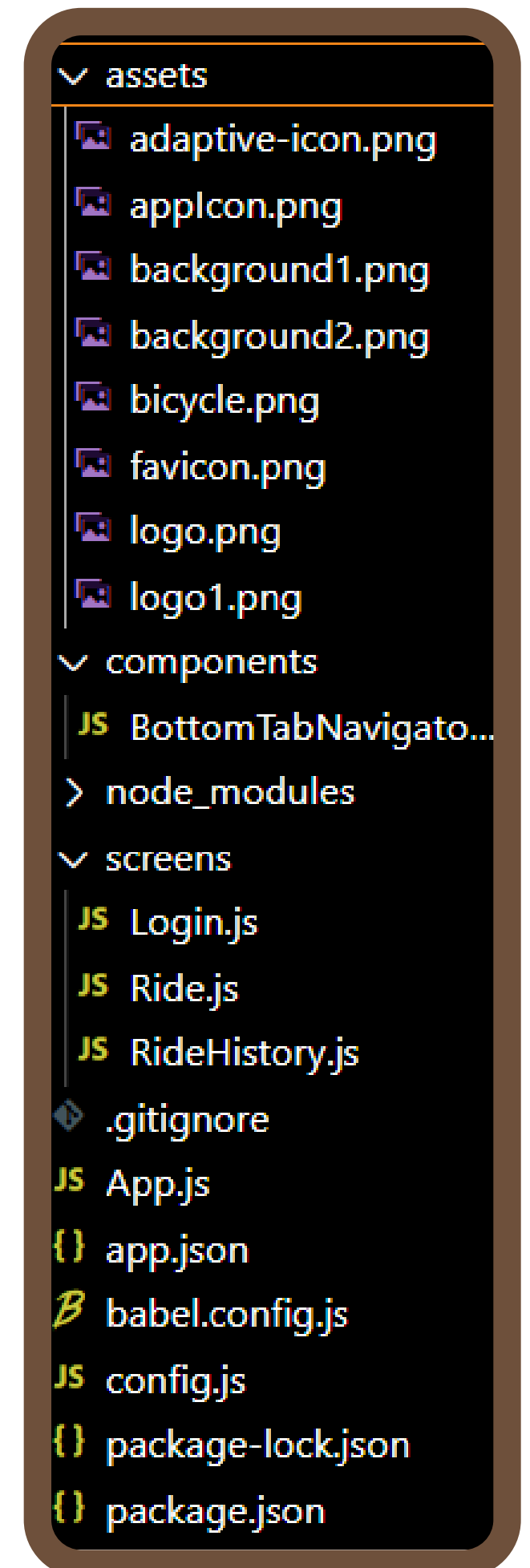
- User
- Bicycle
- Transaction



Modules and Submodules

Ride History and Search Screen

- Get 10 transactions based on user email id.
- Render these transactions as default on the screen using flatlist component.
- Get Input as bike id from the user and get transactions based on that bike id and email id.
- When the user reaches the end of the content, another 10 transactions will be load.



*Thank
you!*