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# Design Document for **CyShare Carpooling Application**

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Group **2\_DO\_7**

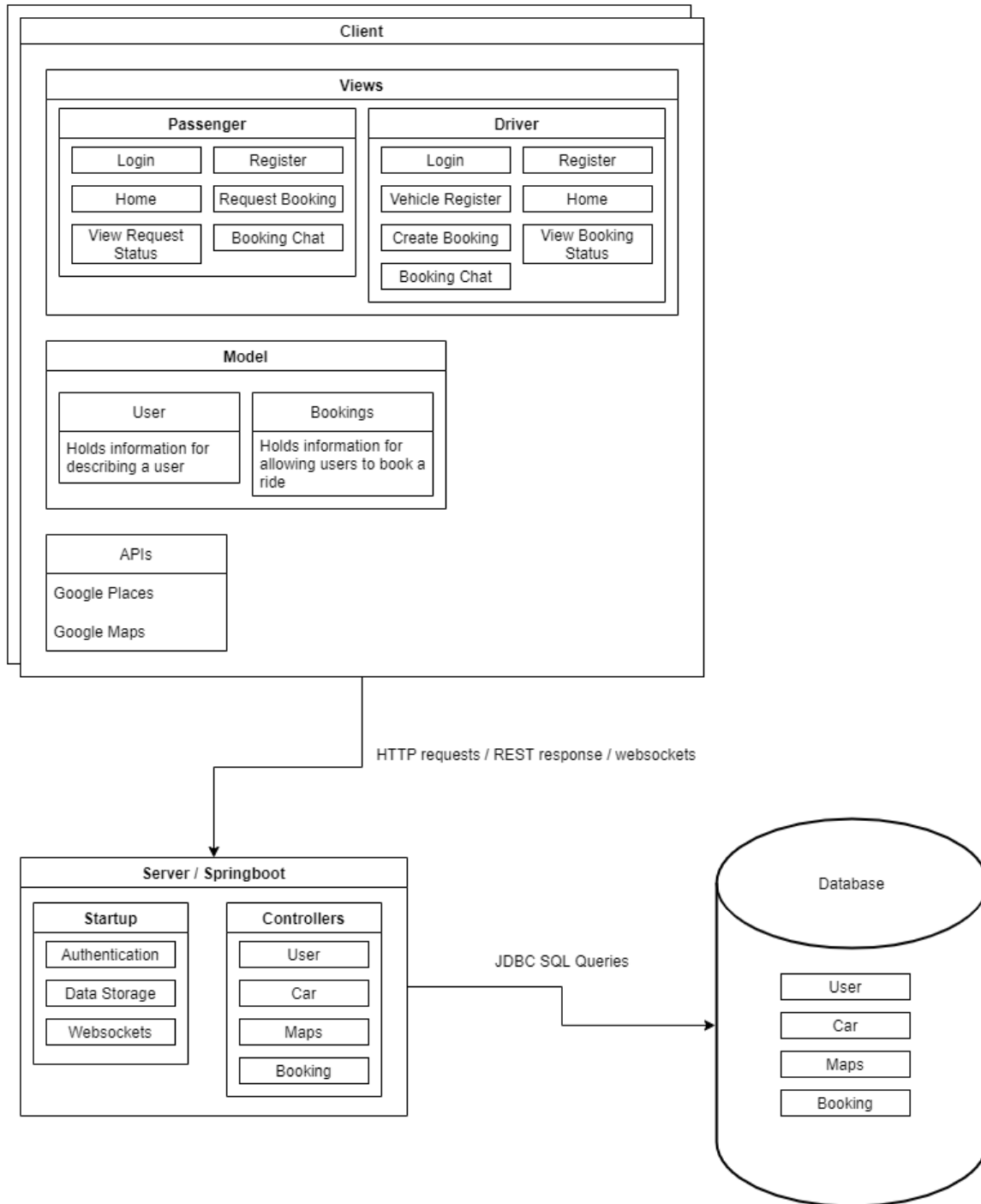
Josh Lawrinenko: 25 % contribution

Bhuwan Joshi: 25% contribution

Tanay Parikh: 25% contribution

Hugo Alvarez Valdivia: 25% contribution

PUT THE BLOCK DIAGRAM PICTURE ON THIS PAGE! (Create the picture using pencil or drawIO)



Use this third page to describe complex parts of your design.

Client :

- Views
  - Each view represents the activity the user is on.
  - All activities rely on database communication to display information accordingly.
- Google Places API
  - Allows users to search any location available on Google Maps database.
  - Allows users to request location coordinates. These coordinates are used throughout the app to allow the creation of booking availability, booking request, and booking confirmed objects.
- Data Model
  - App creates user objects in the model format in order to register new users.
  - User objects are checked against server tables for login validation.

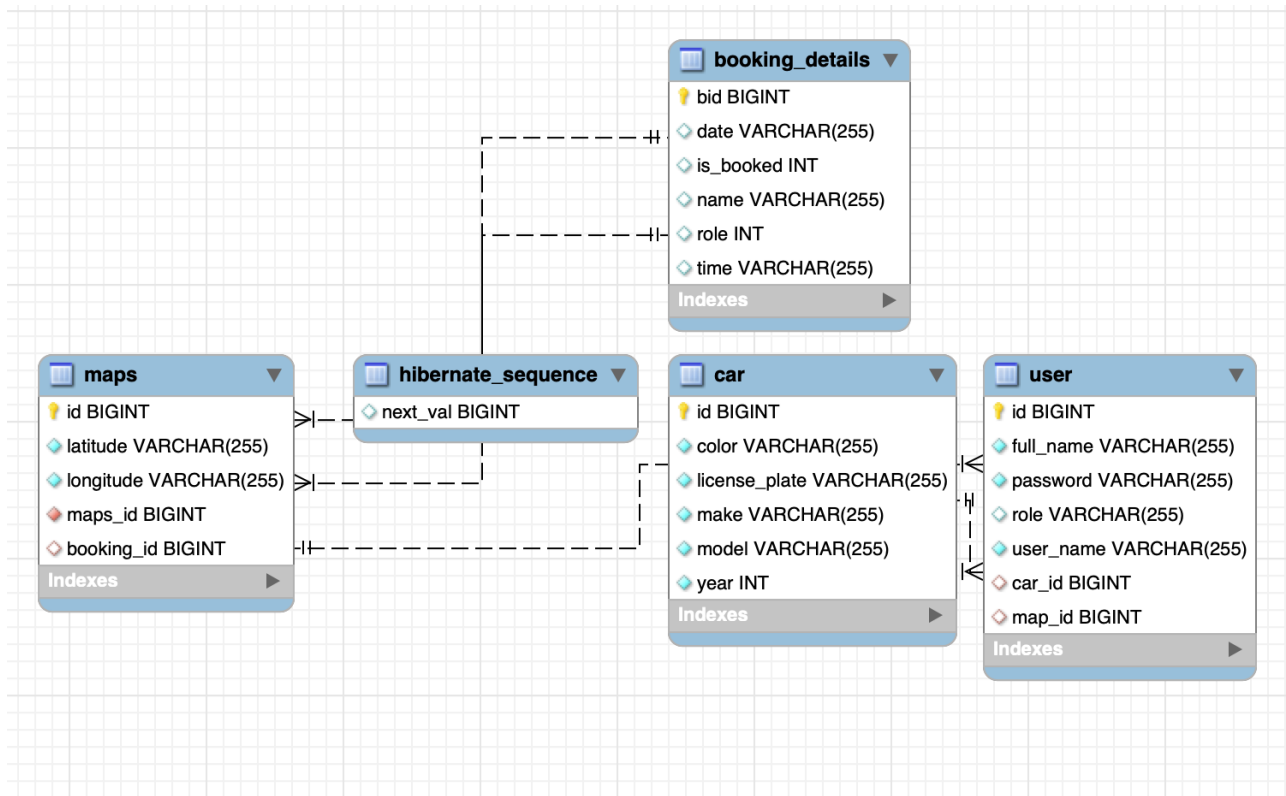
Server:

- The app calls the server every time when the frontend needs any kind of information like the login procedure.
- The app calls the server when it is updating any information in the database like for example while registering a user or registering a car

Database:

- The app uses the database to get user information to validate the login process
- The app uses the database to store the user information like username password and car details depending on the role of the user.
- The database also stores the booking details like the confirmation number, time and also the locations of pick up and drop off.

PUT THE TABLE RELATIONSHIPS DIAGRAM on this fourth page! (Create the picture using MySQLWorkbench)



**USER - Table used to keep track of user data.**

- *id*: Number assigned to each user that uniquely identifies them.
- *full\_name*: User's full name.
- *password*: String used to get access to the user account.
- *role*: Role determines what kind of access the user has at a given time: ADMIN, DRIVER, PASSENGER.
- *user\_name*: String created by the user to identify their account.
- *car\_id (One-to-one)*: Number assigned to each car entity that uniquely identifies them.
- *map\_id (Many-to-many)*: Number assigned to each map that uniquely identifies them.

**CAR - Table used to keep car information.**

- *id*: Number assigned to each car entity that uniquely identifies them.
- *color*: Car color.
- *license\_plate*: License plate number.
- *make*: Car manufacturer.
- *model*: Specific car model.
- *year*: Car model year.

**MAPS - Table used to keep track of user location.**

- *id*: Number assigned to each map that uniquely identifies them.
- *latitude*: The latitude of the user location.
- *longitude*: The longitude of the Coordinate
- *booking\_id (One-to-many)*: Number assigned to each booking that uniquely identifies it.

**BOOKING\_DETAILS - Table used to keep track of the many bookings made.**

- *id*: Number assigned to each booking that uniquely identifies it.
- *date*: The date of the booking.
- *is\_booked*: Booking status: NOT, BOOKED, or REJECTED.
- *name*: The userName For the particular user.
- *role*: The role of the user.
- *time*: The time of the booking.