ER Model for TURO

About Turo:

Turo is a car rental marketplace where travelers can rent any car they want, wherever they want it, from a vibrant community of local car owners. Travelers choose from a unique selection of nearby cars, while car owners earn extra money and help fuel their adventures. It connects the Owners with Guests. **Owners** are people who list their cars on the website. **Guests** are people who rent the cars. To read more on how it works, visit https://turo.com/how-turo-works

Assignment Summary:

Typically, a database design project starts with requirements. You analyze the requirements to identify the business rules, entities, and relationships. However, in this case we are using snapshots from a functional website (www.turo.com) to understand the entities and business rules so that we can reverse engineer the database design. Snapshots are provided for your reference. However, you should go through the Turo website to understand the Owners and Guest workflows.

Assumptions:

- A user can sign up via Facebook, Google or via email and create an account
- An Owner can be a Guest too.
- You must capture the details of the listed cars in your design.
- The Owner can let Turo come up with an estimate of the rental or set a price himself/herself
- The Owner gets a share of the trip amount. The database design should track the results of the pricing and payment for each Owner.
- A Guest can browse for cars based on makes and model to find the car he/she prefers to rent.
- The Guest can request to book a car by looking up the location and date for which he/she wishes to rent the car (if its available) or book a car instantly.
- The Guest can meet the Owner at the location to get the keys or make a request to have the car delivered to a specified location
- A Host (when listing a car) provides information such as – license plate number, issuing country, state, photos of the car, location of the car, year, make, model, transmission, odometer, owner's photo, owner's date of birth, details of car availability, car description and car features
- A guest can search for a car based on relevance, price, distance, instant booking, delivery, vehicle type, vehicle make, features, category, vehicle years, vehicle colors, transmission and distance included. The guest can also mention the location, date and time (duration) for when the car is needed.
- Guests could select area using the map feature available on the website. You should translate that into the Zip codes the cars are available in.
- The guest can leave reviews for the car after the trip
- The guest can select the car from the list/map and make a request to book/book instantly
- The system keeps track of the car availability based on what's booked and the timeframe selected
- The system should keep track of the transaction details every time a booking is made

Hint: How to get started:

- Finalize your design on paper before you worry about implementing in MySQL.
- Go through the snapshots to come up with Business Rules and Entities. You might want to go through the Guest registration process (do not submit) to understand it better. You can also try posting a Car listing (do not submit) to understand how everything is put together.
- Identify the entities that you must have and ones that you might need.
- Capture attributes for each entity and determine the functional dependencies.
- Determine the relationships between entities. Hint: When forming the relationship statement, start the sentence with One/Each. Example: **One/Each** Department has Many Employees; **One/Each** Employee works for One department.
- Identify Minimum Cardinality.
- Implement the design in MySQL
- Create Physical Database.
- Populate sample data in the database.

Table Naming Convention:

Use your FirstName and Last Initial as Suffix for the table names, both in MySQL. For example, my Client table will be named as Client_KashifS

Tasks and Deliverables

1. Design an ER Model for the application in MySQL Workbench.
2. Implement physical tables in MySQL Server. You can use MySQL Workbench to translate your ER model to physical database.
3. Populate your tables with at least 20 records each in MySQL. Populate your name as one of the guests in the guest table.

Make sure all physical tables and the MySQL model follow the naming convention or the assignment is not acceptable. Due Date for the assignment is 9/12/2017 11:00pm. There is a 10% penalty per day past due date.

What and how to submit your assignment

Assignment is to be submitted on eLearning. Emailed assignments are not accepted. Please submit:

1. MySQL file (for the model)
2. MySQL database snapshots

Create a zip file for all your deliverables. Only one zipped file should be submitted per assignment. Name the Zip file as your FirstName-LastName-Assign#

Note that you will need this database for future assignments.

Approximate Work Effort

It will take you roughly 8-12 hours to complete the assignment. Don't wait till the last minutes to start.

You can discuss the assignment with other people in the class. However, discussion does not mean sharing or showing your solution to others. You will get a ZERO in the assignment if it is determined that you have cheated. No Exceptions.

What's acceptable:

- Helping class mates with install issues with MySQL
- Helping class mates with learning the MySQL tool
- Discussing the assignment and/or business rules you are using

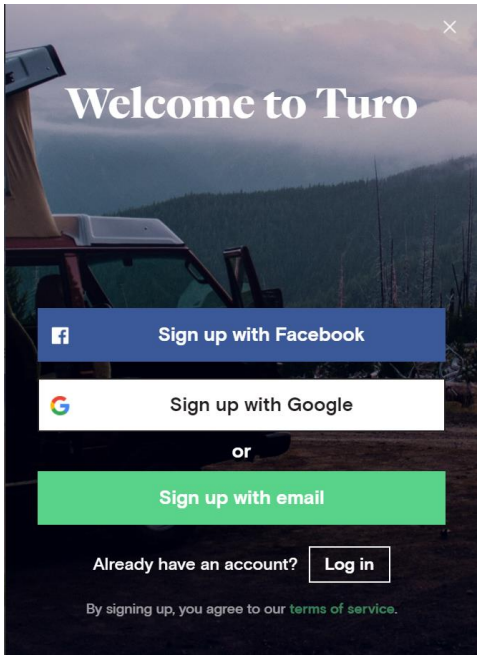
What's not acceptable and counted as Cheating:

- Sharing or showing your ER model
- Sharing or showing your MySQL database
- Providing snapshots of your MySQL database to others

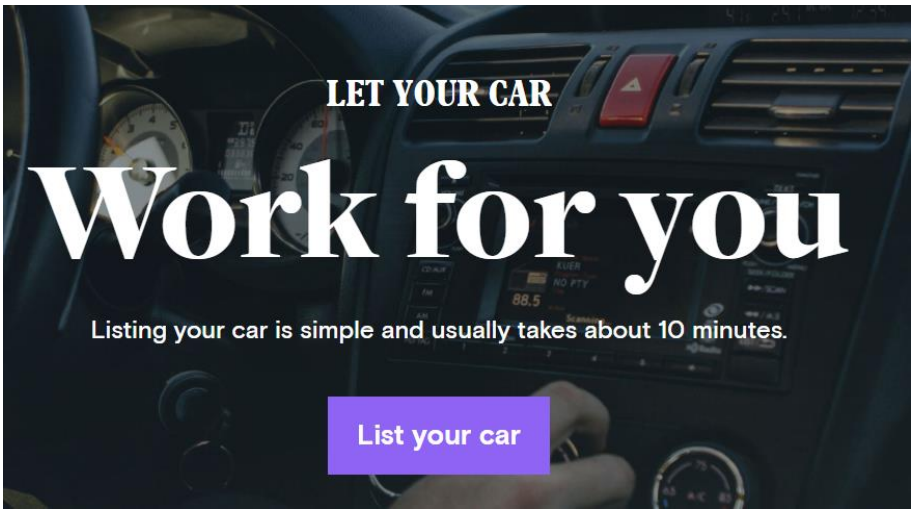
Snapshots:

Process to become a Host:

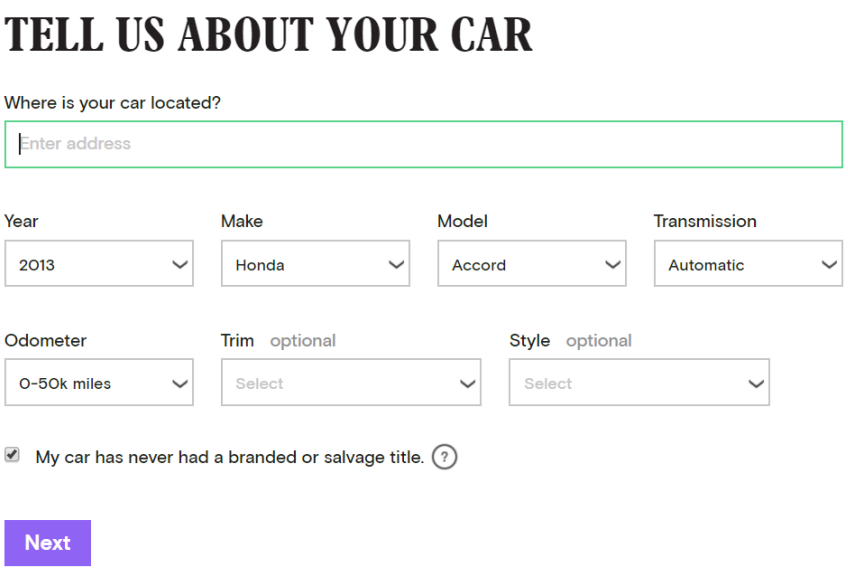
1- Sign up using Facebook or GMAIL or any email address.
2- Allow Turo to see your Gmail or Facebook profile.



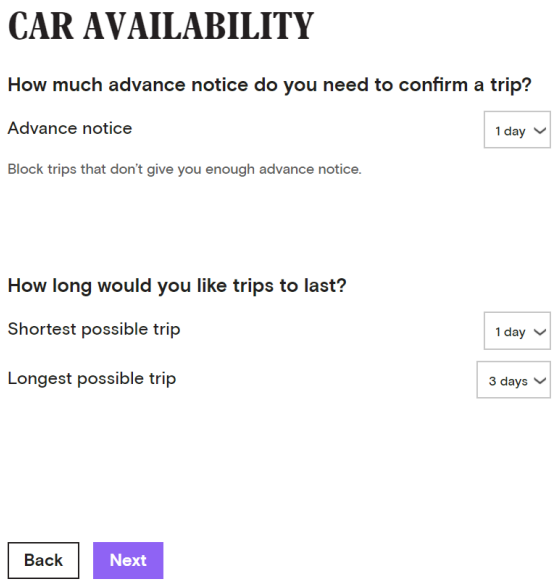
3. List your Car:
   a. Click on 'List your car'



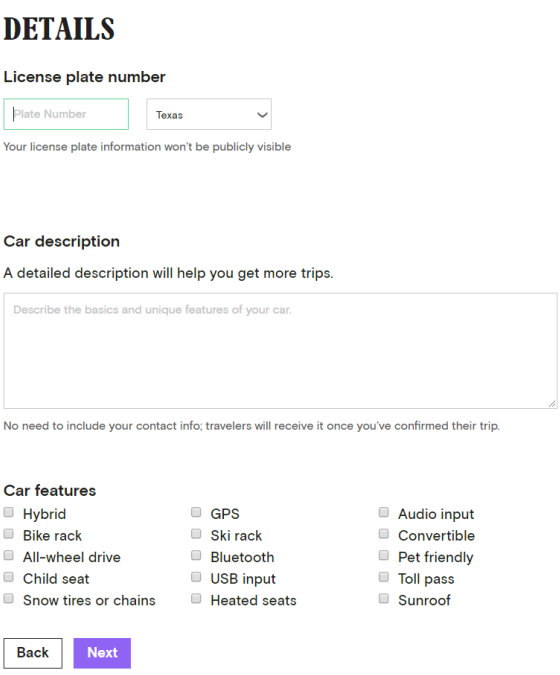
b. The Owner can list his/her car by entering the following details



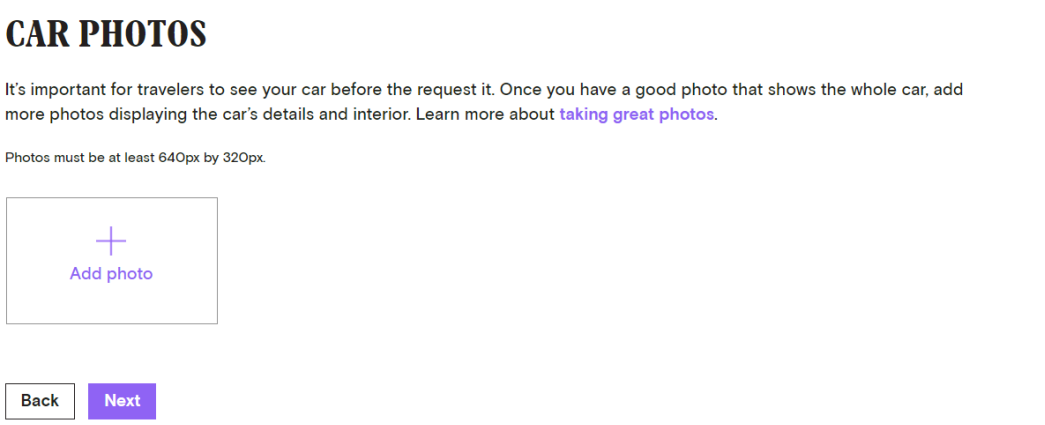
c. Click on Next



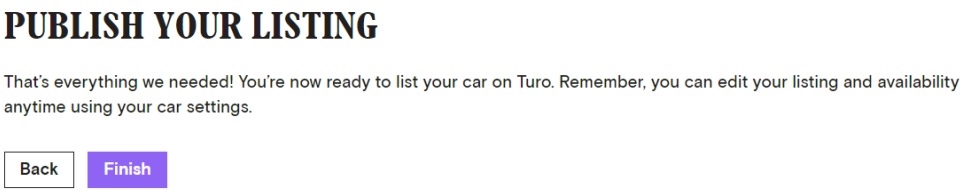
d. Click Next



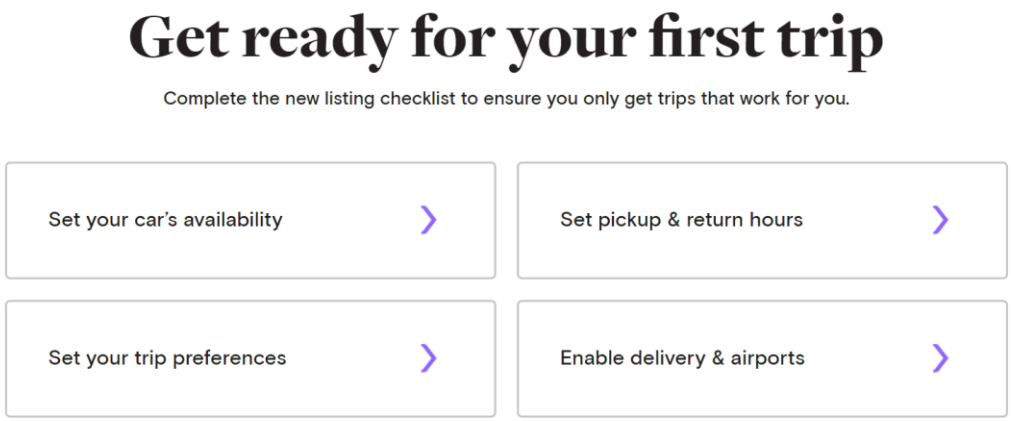
e.



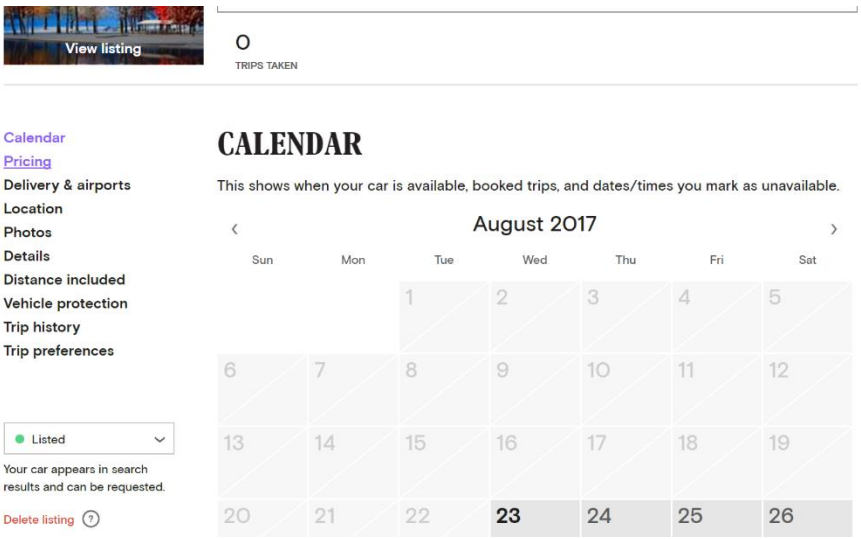
f.



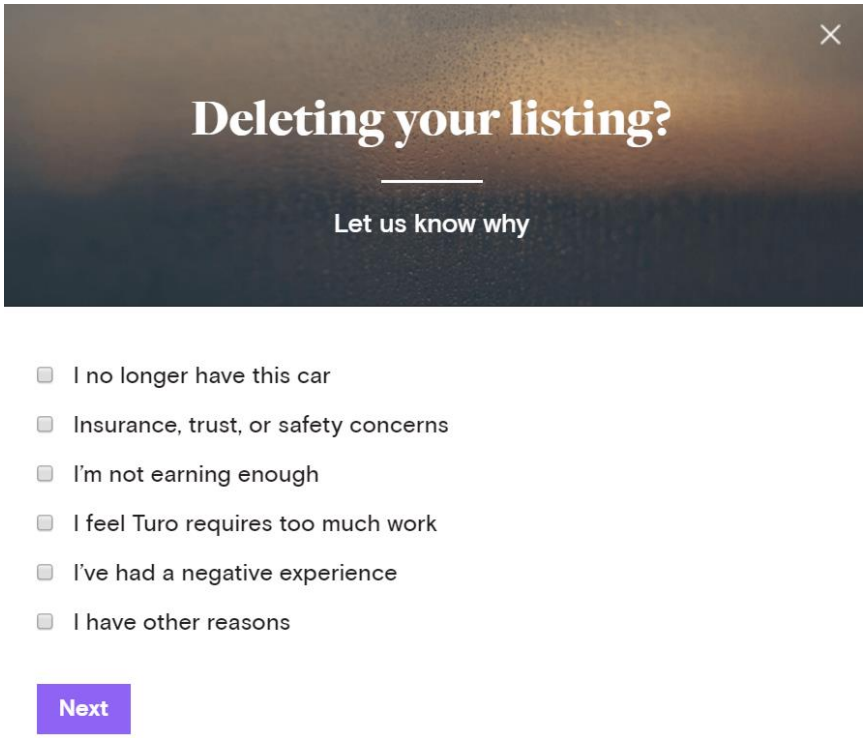
g. Once the listing is active, the owner has the following options:



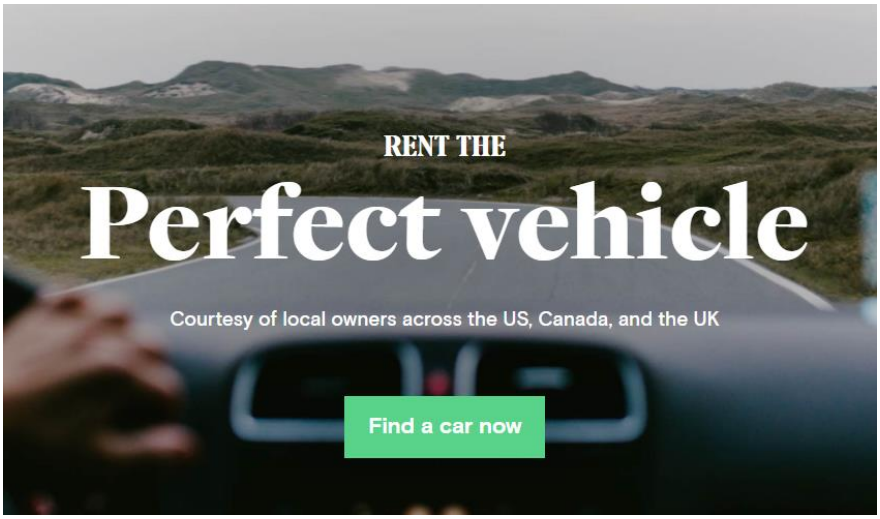
h. The owner can set/edit details about car availability, pricing, delivery locations, pick up locations and other details shown in the left side of the screenshot. These details will be shown in the listing when it's live



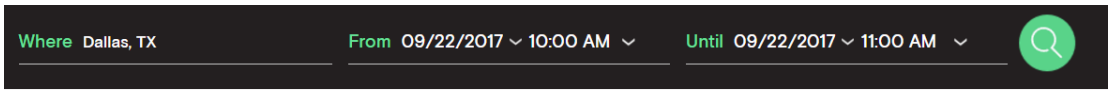
i. The owner also has the option to 'delete the listings'



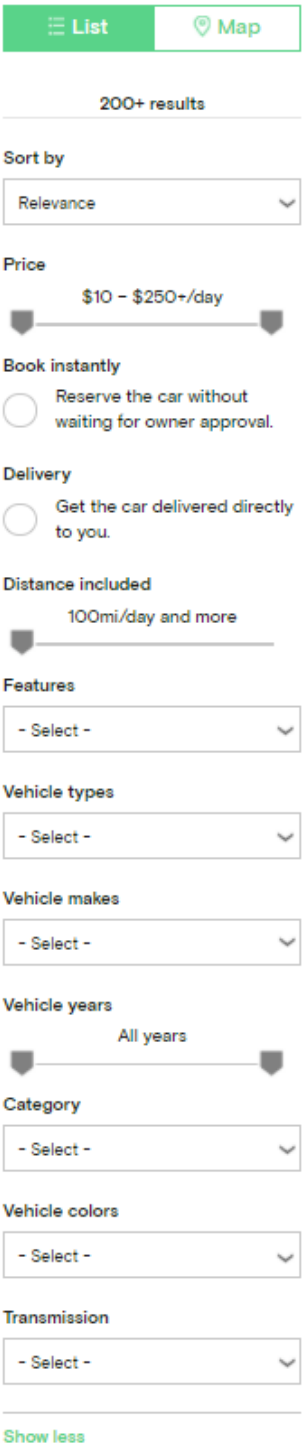
4. Rent a Car:
   a. Click on 'Find a car now'

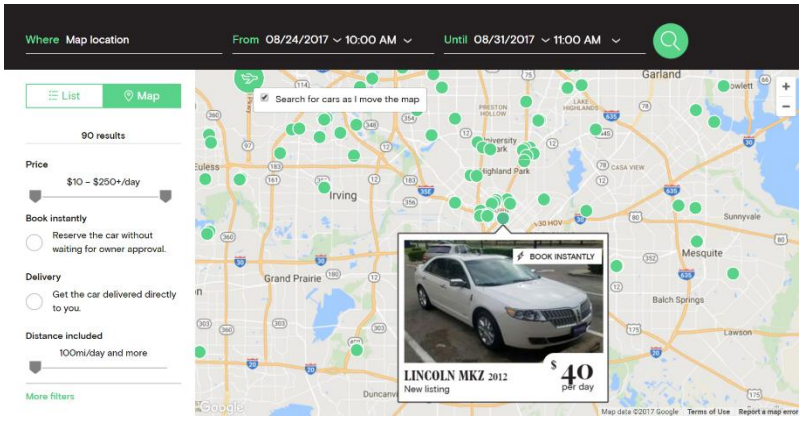


   b. Guests can search for cars

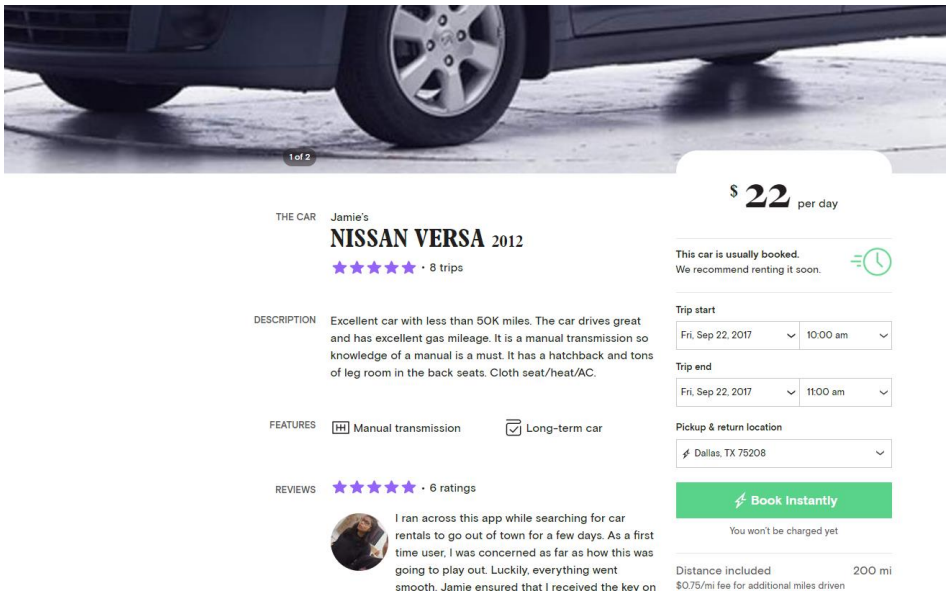


c. Filter options

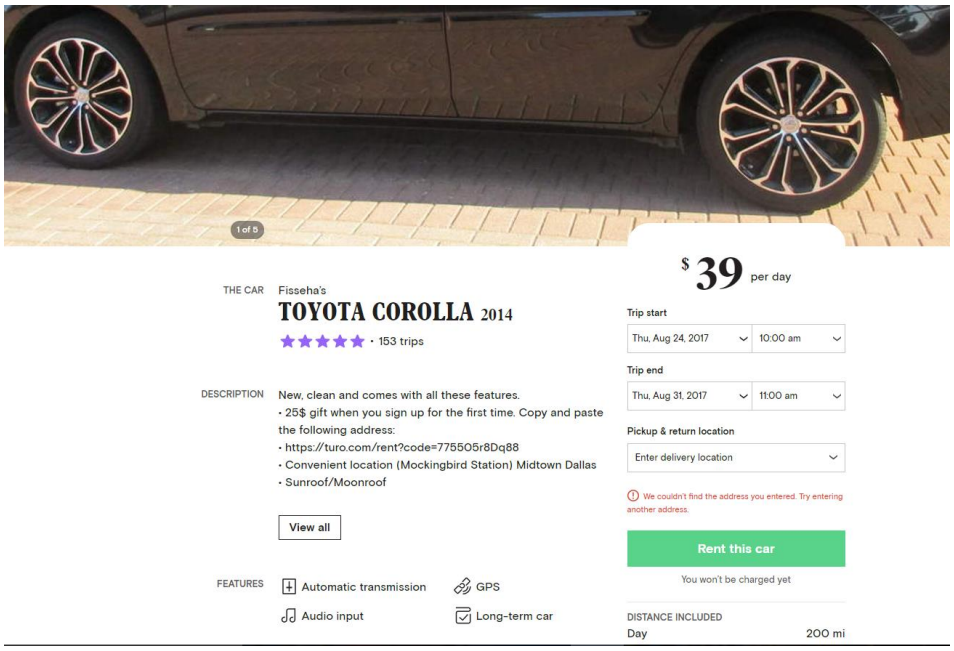




d. Guests can book cars instantly



e. Guests can request for the car to be delivered to a specific location



Guests need to update their payment information.

Guests can leave reviews of the car they rented after the trip.

Submission Instructions:

- Create a zip file for all your deliverables
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