

I, Samii Shabuse, have read this report and attest that the contents are true and correct.

I, Mustafa Bookwala, have read this report and attest that the contents are true and correct.

I took the lead on our group's brainstorming session to go over the design of how our mobile ride-sharing app was roughly going to look. After we brainstormed, I wrote the final summary paragraph of how our brainstorming session went, and then I helped out Samii, who took the lead on brainstorming our database, on drafting some of the mock data that we are going to use, specifically, the location and ride request data. Afterwards, I helped out Mustafa, who took the lead on creating the ER diagram, and helped map out some of the key entities, relationships, and attributes related to users and ride offers that would be stored in our database.

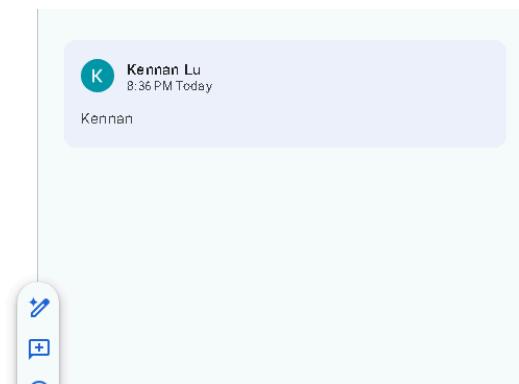
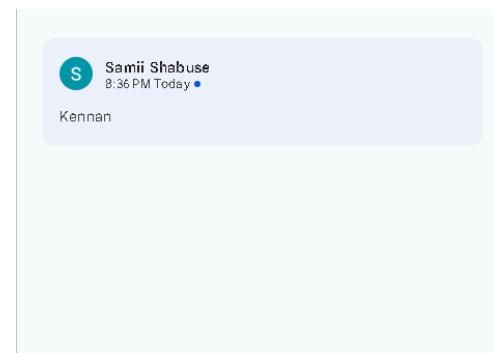
- Mobile app
- 2 types of users who will use this app
    - 1 who gives rides out to other users
    - 1 who needs rides from other users

- Opening screen - literally on click of the app icon
- 2 buttons at the center of the screen
    - Login, or
    - Signup

- On click signup
- Username field
  - Password field
  - Button to designate whether you will be giving rides?
    - If the button is checked, car registration info is needed - make, model, license, etc...

#### Final Summary Paragraph

Our brainstorming session allowed us to converge on an outline of a ride-sharing mobile app designed to serve two specific types of users: riders and drivers. This app is different from other apps in the sense that drivers are to put in predetermined routes that they perform regularly in their lives, and the app will match riders with drivers who already drive a similar path to where the rider wishes to go (sort of similar to hitchhiking). A user signing up to be a driver will be required to fill out car registration details during a specialized signup process. The user flow prioritizes simplicity, beginning with a Login/Signup screen, followed by a main home screen offering 2 primary functions: to "Find a ride" or to "Give a ride." Both functions lead to a map interface for setting Point A and B locations. The app features a nav bar for viewing ride history/requests and an informational screen to display important driver, car, and location data upon match. The entire system is to be developed with a full-stack Kotlin approach for both frontend and backend components of the mobile app, using SQLite as the database and Docker/Kubernetes for managing access to the database. The scope of the app will primarily focus on serving Drexel students and the local UCity area, with options in the future to scale out many different components of the app if desired.



Lyft Costs - <https://www.kaggle.com/datasets/rav172mundu/uber-lyft-cab-prices>

This dataset contains information about simulated ride price estimates and corresponding weather data collected in real-time. This is useful because the data directly relates to pricing, distance, and time-based factors critical to a ride-sharing service.

University Ranks - <https://www.kaggle.com/datasets/mylesoneill/world-university-rankings>

This dataset is a compilation of information about university rankings across the world. This is useful for defining the scope of our app's user base and knowing how to create realistic synthetic user data.

Car Data - <https://www.kaggle.com/code/mohaiminul101/car-price-prediction>

This dataset contains information used to estimate a car's selling price based on various features. This could be useful for our ride-sharing app in terms of supporting the driver onboarding process and possible expansions to include future pricing features.

Ride-Sharing Platform -

<https://www.kaggle.com/datasets/adhananam/ride-sharing-platform-data>

This dataset contains simulated data for users, drivers, vehicles, rides, and ratings representing a ride-sharing platform. This is useful for us to be able to simulate how data gets processed in a real ride-sharing environment.

Ride Request - Mock Data

request_id	rider_id	pickup_location_id	dropoff_location_id	earliest_pickup	latest_pickup	seats_needed	status	created_at
1	11	7	10	2025-10-14T19:05:00	2025-10-14T19:45:00	1	canceled	2025-10-13T19:15:00
2	10	6	8	2025-10-14T13:15:00	2025-10-14T13:25:00	1	open	2025-10-13T13:15:00
3	7	1	9	2025-10-14T07:20:00	2025-10-14T07:40:00	1	in transit	2025-10-13T07:30:00

4	13	6	7	2025-10-13T23:50:00	2025-10-14T00:30:00	2	in transit	2025-10-13T00:00:00
5	10	7	2	2025-10-15T21:45:00	2025-10-15T21:55:00	1	open	2025-10-14T21:45:00
6	11	3	2	2025-10-15T03:00:00	2025-10-15T03:10:00	1	canceled	2025-10-14T03:00:00

Location - Mock Data

location_id	name	address
1	Drexel Main Building	3141 Chestnut St
2	Korman Center	3220-26 Woodland Walk

Kennan Lu  
8:37 PM Today

Kennan

S Samii Shabuse  
8:32 PM Today •

Kennan

S Samii Shabuse  
8:32 PM Today •

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