

Phase 1 Deliverable

Project Charter

Project name: Ride N Share

Problem statement:

- Not every hokie has a car. It costs money and produces pollution to the earth by driving cars everyday. Also, more vehicles on the road make traffic severer.
- Besides, it's not guaranteed to be safe for strangers to share a ride by using the current car sharing app in the market.

Brief project description:

- This app provides a ride sharing service for Virginia Tech students and staff exclusively. Both the driver and passengers need to verify their identification. In this app, drivers can post ride information while passengers with similar locations and routes can take the rides.

Project outcomes or deliverables or final goals:

- We will deliver a full stack web application, and launch the app online for all the Virginia Tech students and staff.

Project team members and their roles:

- **Technical leads:** Guangrui Wang
- **Project manager:** Jiayue Zhou
- **Writer leads:** Tianbo Lu
- **Cloud lead:** Geping chen
- **Design/Layout:** Yechen Xu

Timeline for completion

- **Requirements analysis & Design:**
 - Market evaluation: 1 week 8.22 - 8.28
 - Business proposal: 3 weeks 8.29 - 9.18
 - Requirement doc, Design specification: 2 weeks 9.19 - 10.2
- **Coding & testing** 7 weeks 10.3 - 11.27
- **Deployment** 1 week 11.28 - 12.4

Communication plan for the team

- Standup meeting through Zoom twice a week (Monday, Thursday), talking about updates, problems and future plans.

The Case for the System (Product)

Need for the system (Product)

Why do we need this product? What purpose does it serve?

- Not every hokie has a car. In this case, using our product can provide a convenient way of travel for students without cars.
- Sharing a ride is both economical and environmentally-friendly, improving the utilization of vehicles and reducing road congestion.
- Our product ensures a safe environment for students and staff (all users must be verified).

Who are the main stakeholders and end users?

- Virginia Tech students and staff.

If your system is an app, why does it have to be a mobile app (not a desktop or a web application)?

- N/A. Our product will be based on the web platform.

Current market

What are the other systems that have goals similar to your system (mention some examples)?

UberX Share, Lyft, Via, Gett, Curb, Ztrip.

What criticism do you have about them?

- The price is a little expensive. Our goal is to provide hokies with non-profitable or affordable ride services.
- Drivers often have to pick up the passengers specifically. Sometimes it takes time for drivers and passengers to wait for each other. It would be better to have them both on campus and maybe make students with the same courses commute together.
- The harassment happens to both passengers and drivers taking trips through public driving apps, since there is no guarantation to both of the roles.

Competitive analysis

What is "new" about the system? Is it the idea, or is it the way it approaches a solution that already exists?

- We give both drivers and passengers full autonomy to post services or requests. Our app is specifically designed for Virginia Tech students and staff.

How do you think your system will be different or better than existing products?

Our product has three main features.

- **Specificity.** Currently, there is no such an app specifically designed for people in Virginia Tech to share rides. We want to create a platform only for them to use.
- **Safety.** We support hokie passport verification through our platform, so that users can upload their hokie passport picture to the platform in order to sign up, which limits the service scope and avoids potential safety issues or correlated concerns.

- **Commonweal.** Our platform is non-profitable, mainly for students and staff in university, to help people in need.

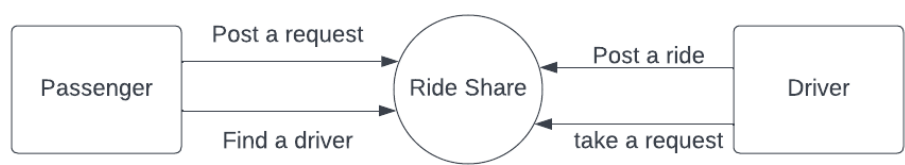
System Description

Technical, Business or Administrative Problem Addressed

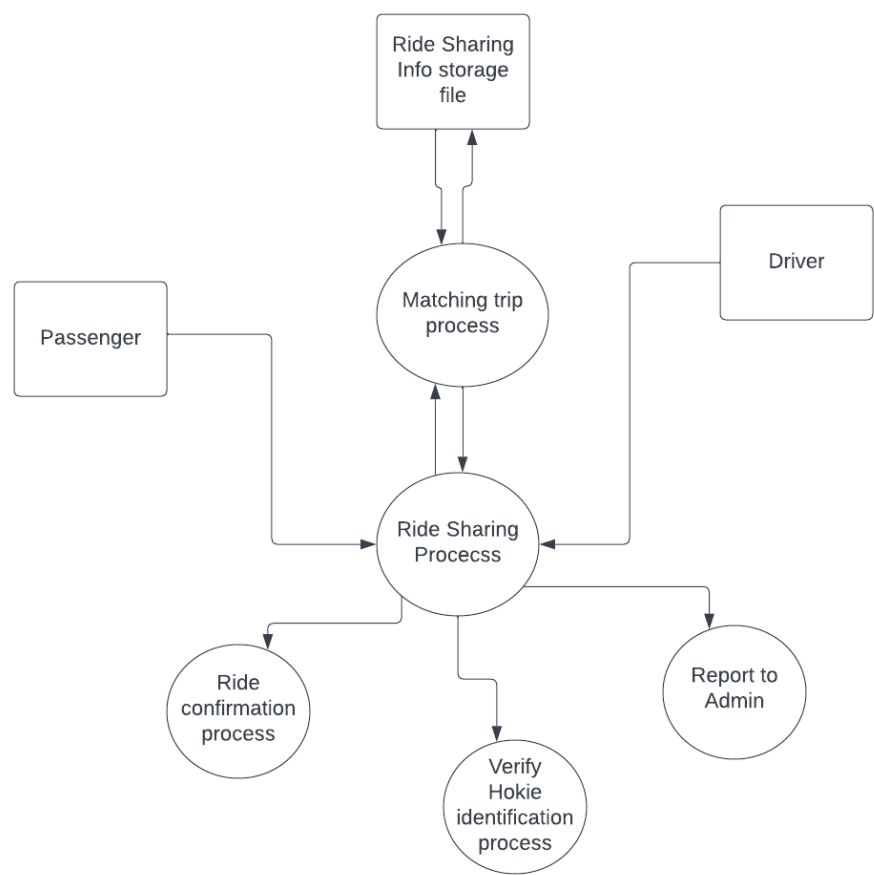
- Technical: Architecture design, database schema design, UI/UX design may be quite complexity
- Business: To make sure that Virginia Tech students and staff accept and use our products.
- Administrative: Division of labor and teamwork are hard to decide.

Dataflow Diagrams (DFD) – Context, Level-0 (Provide only two levels)

context



Level 1:



Assumptions and Risks

- **Privacy issues:** the itinerary information of students and teachers could be leaked if data is not managed properly.
- **Bad experience:** high latency or low performance may cause bad user experience especially encountering multiple users using applications at the same time.
- **Marketing reason:** we may not raise enough money to support our maintenance due to not enough users.

Team Dynamic

What skills do your team members bring to this project?

- We have proficient frontend and backend skills, and are able to use different frameworks. We are good at various programming languages and are familiar with cloud techniques.

What skills are missing and you'll need to learn to deliver the system?

- Product management, UI/UX design and database skills.

How are you planning to obtain such missing skills?

- We plan to learn new things by watching Video tutorials such as YouTube, looking for answers in Q & A communities such as Stackoverflow, reading official docs and wikis.