# Vision and Scope

## Business Requirements

### Background

With ever increasing traffic traveling through the city of Reykjavík is constantly becoming more time consuming, especially during peak hours. In addiotion there are other costs for citizens, as more traffic calls for more maintainance of roads, air pollution, noise and more side effects from driving vehicles. Multiple solutions will be necessary to help alliviate the strain on the road system.

### Objectives

To offer a solution alongside better public transport that allows for more comfort then it can possibly offer. By making it easy for people to offer up free seats in their cars, as well as making it easy to contact them, we can increase the utilization of each car, thus reducing the amount of cars in traffic. In addition each user will be saving money, since they have more people to share in the cost of driving, whether it is someone needing a ride compared to taking a taxi, or someone offering a ride simply having someone contribute to the fuel costs.

### Vision Statement

Our app is for anyone who needs to get between points outside of a reasonable walking distance. Especially those that dislike, or have a hard time using public transport, or those that simply need to get somewhere where the bus system does not go in a reasonable fashion.

### Success Metrics

It is unlikely users will ever spend very long amounts of time so success will be measured in the repeated use of the service. We could track the number of seats being offered and how well they end up being utilized. There are also different metrics not intrinsic to the application itself, like amount of cars kept of the roads, amount of carbon kept out of the atmosphere, etc.

## Scope and Limitations

### Major Features

- A way for users to submit and respond to offers for a ride
- An interactive map that helps users see and choose rides they find the most optimal
- Easily see how much each ride will cost and how fuel can fairly be split

### Limitations and Exclusions

Given the legal environment in Iceland surrounding taxis and driving for payment in general, the app will not be able to enable users to drive as a source of income. The app can only offer to assit in calculating the actual costs of the ride, while payment is going to be left to the driver and passengers to figure out. Thus monitazation of the service will be difficult.

## Use Cases

1. **Use Case Name:** Offering a carpool
2. **Scope:** The ride-posting system
3. **Primary Actor:** A user(driver specifically)
4. **Stakeholders and Interests:**
    a. Drivers interested in sharing their car commute
        i. Lowers the cost of driving
        ii. Potentially more environmentally friendly(if passengers leave their cars at home)
        iii. Gives the driver company during a potentially boring drive
    b. Passengers
        i. Likely more comfortable then public transport
        ii. Quicker then going with the bus
        iii. Leaving the car at home is more environmentally friendly
5. **Preconditions:**
    a. The user must have signed up for the service
    b. The user must have access to a car they're allowed to use
    c. The user must have a drivers license
6. **Success Guarantee:**
    a. Some user(s) take the drivers offer
        i. Passengers and driver each agree on a point of pickup
    b. Every passenger gets to the desired destination
    c. Every passenger pays for their part of the ride
7. Main Success Scenario:
    a. The driver posts an ad for their commute through the application
    b. A user(passenger henceforth) searches for a ride to their destination
        i. Finds a ride going from near their original location to approximately their destination
        ii. Only gets offered rides with some free seats
    c. The passengers asks if she/he can come with the driver
    d. The driver accepts the passengers request
    e. Passenger and Driver agree to a pickup/dropoff point
        i. Repeats (b-e) for any other users that have asked
    f. Driver picks up every passenger
    g. Driver drops every passenger off
    h. Every passenger pays for their ride
        i. Could happen before step (g)
8. **Extensions / Alternate Scenarios:**
    a. **Extension:**
        i. The users agree to set this up as their regular commute
    b. **Failure:**
        i. If someone doesn't pay for their share
        ii. Driver doesn't arrive to the agreed upon pick up point
        iii. Passenger does not show up to the agreed upon pick up point
        iv. Driver does not drop the passenger off in the right place

9. **Frequency of Occurrance:** Would happen continously
10. **Miscellaneous / Open Issues:**
    a. Ensuring payment from passengers