

An Ellensburg taxi app that's
out of this world...



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Rodeo Town Taxi App

From RODEO Speedwagon

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App Introduction

Rodeo Town Taxi

- 24-hour service
- Taxi rides, deliveries, car lockouts, jump starts
- First-aid trained, background checked drivers



A New Era

- The services are currently only available by phone call
- Compatible with iOS and Android devices
- In line with 2019 standards



uber

lyft

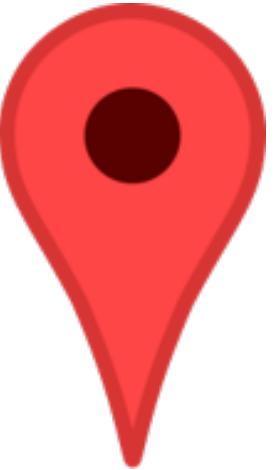
The Competition

- Not common in Ellensburg
- Rodeo Town is a locally owned business

Requirements

Absolute Requirements

- Book a taxi ride
- Access other services offered by Rodeo Town Taxi
- Dispatch button
- Storing driver information
- Administrative control over drivers
- User login
- Driver and customer locations on map
- Compatible with Android and iOS
- One app for all users



Additional Requirements

- Desirable:
 - Rewards system and promotions
 - In-app messaging
 - Additional information section
 - Calculating wait time and trip duration
- Optional:
 - Rating System



Analysis

Validity

- Requirements valid for the needs of a taxi application.
- Client is a taxi industry professional for over 10 years in the business.
- Information provided correct and accurate with modern taxi application.



Feasibility

- Highest priority requirements can be completed within the provided 10-week timeframe.
- Traditional database connection and functionality.
- Basic map functionality via Google Maps API.

POSSIBLE



IMPOSSIBLE



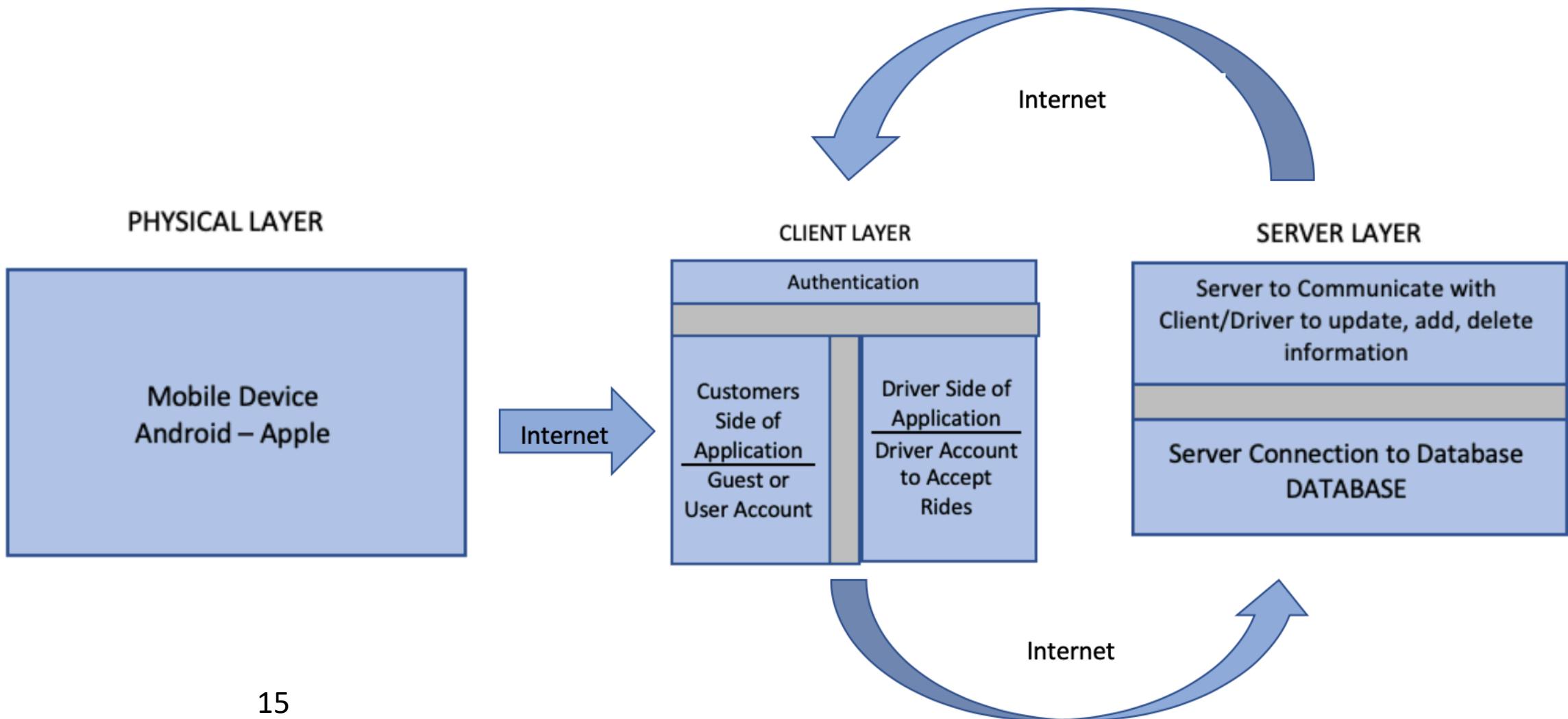
Consistency

- All goals for the application matched with the requirements specified by the client.
- Requirements are not conflicting and are logical for this type of application.



Design

High Level Design



Low Level Design (1)

User Side

- Function or Google Maps API Screen View
- Function attached to button to call dispatcher
- Function to Request a Ride
- Function to display marker on map and move with travel

Driver side

- Function or Google Maps API Screen View
- Function to Accept ride
- (Maybe) Function to Call User
- (Maybe) Function to Message User
- Function to display marker on map and move with travel

Low Level Design (2)

Server Class

- Function connects to main to allow user to login and proceed to user side via guest or user
- Function connects driver to main to allow driver to login and proceed to driver side
- Function to check the connection for the driver or user to the server
- Function to request data
- Function to send data

Database

- User Table [First Name, Last Name, Guest (Y or N), Email, Phone Number, Password, Rides, Awards]
- Driver Table [First Name, Last Name, Password, Employee ID, Car ID]

Low Level Design (3)

Application Main Screen

- Function or Switch Button for Driver/User
- Function to Login – Differentiate between Driver/User/Guest
- Function to Validate whether account is already created
- Function for forgot password

Tools Considered

Git / GitHub

- Version control system
- GitHub acts as a free online repository
- Pros:
 - Easy to share the code
 - Easy to work on other's code
- Cons:
 - Not great for images, non-text documents, etc.

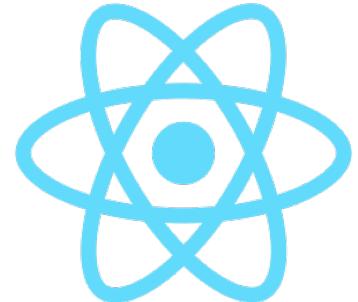
Alternative: Subversion

- Not many use it
- Everyone knows git already



React Native

- React is JavaScript library
- React Native lets you use React on devices
- Pros:
 - For creating cross-platform apps
 - Reduces the amount of work we need to do
 - Import native code
- Con:
 - More software needed
 - Alternative: Two projects with Android Studio and Xcode

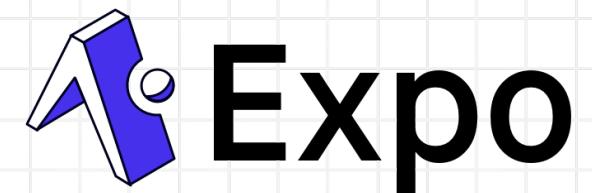


Expo

- Framework for testing apps on physical devices without Android Studio or Xcode
- Pros:
 - Updates to current version in seconds
 - Many tutorials
- Con:
 - Cannot import native code

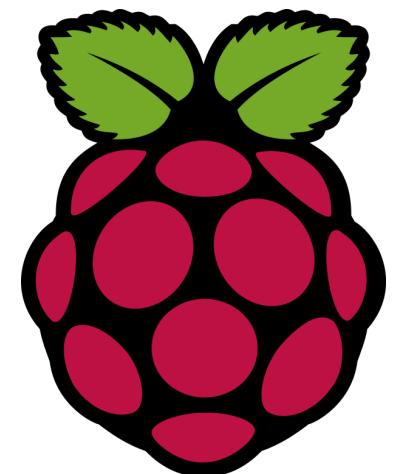
Similar solutions:

- Ionic
- Xamarin
- appcelerator



Raspberry pi

- For the server and database portion of the project
- Pros:
 - Cheap
 - Portable
 - Full control
- Con:
 - Possible service interruptions



Google Cloud

- Pros:
 - Simple and free to try
 - Low or no cost for small projects
 - Team has experience with it
 - Google Route-Finding API
- Cons:
 - Harder to administrate than physical device
 - More passwords



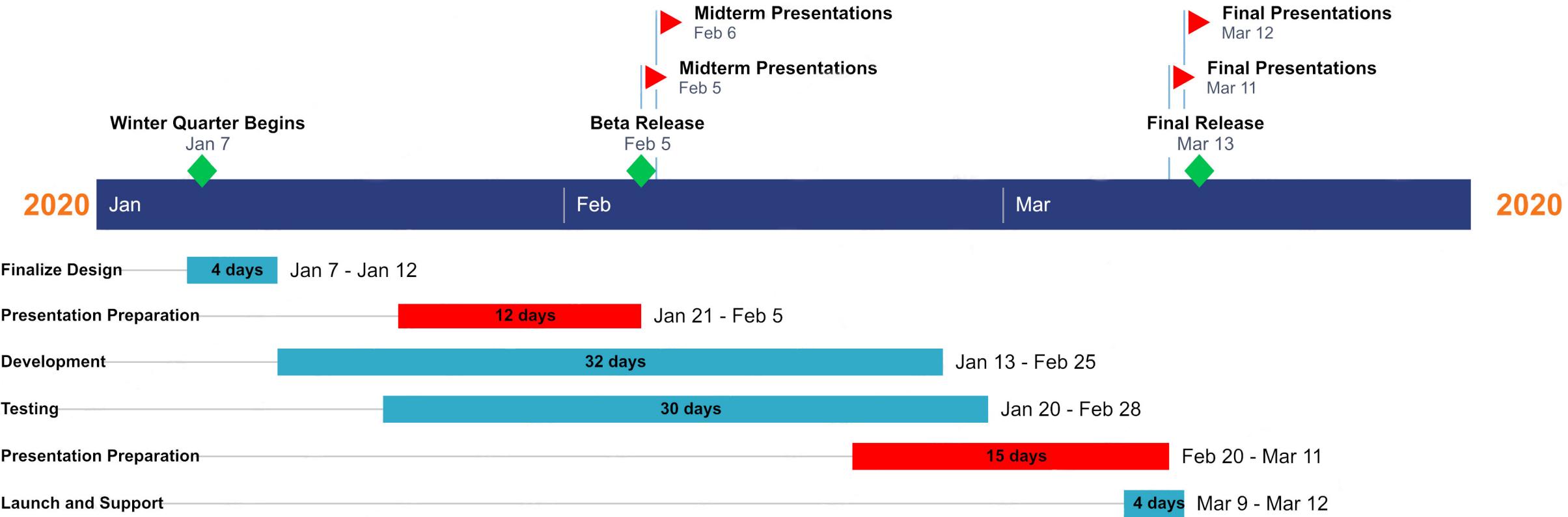
Scrum Meetings

- Discuss the project
- Share things quickly
- Discover weaknesses
- Informal
- Partitioned work based on strengths



Scheduling

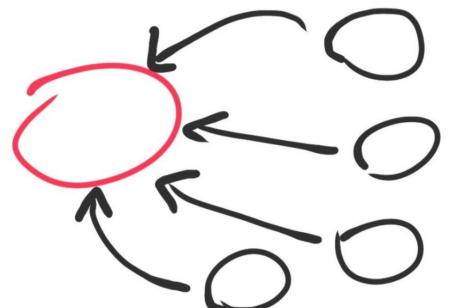
Rodeo Town Taxi Application



Conclusion

Conclusion (1)

- An app running on both iOS and Android
- To help people more easily call taxis of Rodeo Town
- Roles of users: customers, drivers, administrators
- Main Features:
 - Customer can request a taxi
 - Customer communicates with driver by phone / message
 - Admin control over the drivers



Conclusion (2)

- Build a server & a database
- Use React Native for building the project
- Connect with Google Maps API
- Let messages go through the server
- Tests done by developers (white box)
- Tests done by non-technical users (black box)

A problem has been detected and Windows has been shut down to prevent damage to your computer.

PROCESS_INITIALIZATION_FAILED

If this is the first time you've seen this stop error screen, restart your computer. If this screen appears again, follow these steps:

Check to make sure any new hardware is properly installed. If this is a new installation, ask for any Windows updates you might need.

If problems continue, disable or remove any recently installed hardware or software. Disable BIOS memory caching or shadowing. If you need to use Safe Mode to fix your computer, press F8 to select Safe Mode.

Technical information:

*** STOP: 0x00000060 (0xF2)

*** 4FQ.sys - Address

stop error screen,
s again, follow

Hardware is properly installed.
Contact hardware or software manufacturer

installed hardware
caching or shadowing.
components, restart
Options, and then

7,0x00000000)

00, Datestamp 4d5dd88c

Beginning dump of physical memory

Physical memory dump complete

Contact your system administrator or technical support for further assistance.

