

# Drive Buddy Specification

## Title/Author

Name: Drive Buddy

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## Overview

When learning to drive for the first time, the main suggestion before taking the drive test is to have at least 50 hours of practice. However, inputting data into a spreadsheet is time consuming and can easily be messed up. Whether it be inputting data in the wrong column or awarding yourself less time than you actually spent practicing, all these issues can be solved with Drive Buddy.

## Target Audience/Customer

People of all ages that are learning to drive in anticipation of a drive test.

## Scenarios

- (PO, route recording) Ethan, a high school student, just turned 16 last month and wants to get ready for the drive test. He is currently enrolled in a driving school, where the teacher recommends that he or his parent download the Drive Buddy app to record practice drives. That afternoon, he opens the app and creates a new "drive", clicking the start button and driving around the neighborhood with his mom. After 30 minutes, he pulls back into the driveway, taps the stop button. Then after the app has finished processing, Sam looks at the data recorded. Displayed on the screen is the time elapsed, the route he specifically took, the goal he had set for himself, and the date indicating if it was day or nighttime driving. He then inputs a few sentences describing how it went, and any goals he has for next time. Saving the drive, the app takes him to a general page where his first drive is listed and later drives will be displayed under it.
- (PO, overall stats) Karl, who has been driving for two months, wants to know how close he is to meeting the recommended amount of practice. He opens Drive Buddy and goes to the stats page. Scrolling vertically, he can see that he has spent a total of 20 hours driving, 2 at night and 18 during the day. He then sees that he has set a goal of changing lanes 10 times, backing around a corner 2 times, and parallel parking 5 times.
- (PO, driving plan until test) Tayshia, an adult who has set her drive test to be a month from now, needs to know how much time she should set aside to fully prepare for the test. She gets home from work around 6pm and borrows her friend's car every Tuesday and Thursday for an hour to practice. She feels most comfortable with changing lanes and highway traffic but feels that she still needs to work on parallel parking and backing around a corner. Tayshia puts these constraints in the planning section of the app, and a schedule is generated, determining what she should practice and when.
- (P1: notification to drive) Lucas, a busy student, wants to incorporate driving practice into his weekly routine. He sets his practice hour to be on Sunday at 9 am. That Saturday night, at 7pm, he receives a notification from the app reminding him of his scheduled drive tomorrow morning. Excited, he goes to remind his dad and double checks that he is free to help teach him.

- (P2, tips on how to drive) Sarah, a college student who can't seem to parallel park without hitting the cones, wants a video tutorial to remind her of the exact formula one should take to park successfully. In the goals tab, she navigates to the specific goal. On the page there are multiple YouTube videos linked that show different ways of parallel parking. Picking the one that looks the most like what her instructor showed her, she watches the video and memorizes the steps. Then she goes back to her car and parks without hitting the cones.
- (P3, unique state rules) Katy, a South Dakotan, wants to know what specific goals she should practice for. When she downloads the app, she inputs the state she is going to take the test in, and different goals are provided. Compared to Washington state, which has 19 required elements in the road test, South Dakota only has 6.

### Technologies Used/Why

I want to make this app an iPhone App. I chose to develop it for the phone because most people bring their phones with them in the car. GPS is important to my app to record routes, so I need a device that has cell service which the phone does. I currently have an iPhone XR which is why I want to make an iPhone app, to be able to test it myself and have my sister use it to prepare for her exam on her own iPhone. I also plan to create an Android version in the future if possible.

I am planning on using Swift and Xcode to create my app. This is because I want to publish my app in the Apple App store and I already have experience coding in Swift from my last app. Also, Xcode has an easy developer environment with simulations for all Apple devices which is convenient to test on. Lastly Apple already has a standard location service for iOS devices which I will use to record the user's route.

### Design/Why

\*Scroll down to see sketches\*

## Overall Stats - Karl's scenario

DriveBuddy  
Tip of the Day

New Route

Drive #15 4/21/26 >

Drive #14 4/18/26 >

Drive #13 4/16/26 >

Drive #12 4/10/26 >

Drive #11 4/3/26 >

Drive #10 4/1/26 >

Overall Stats 
Record Route 
Goals

Overall Stats

Total Hours: 20

Hours day: 18

Hours night: 2

Goals:

Changing lanes: 10

Backing around corner: 2

Parallel parking: 5

Overall Stats 
Record Route 
Goals

Been driving for a while so there are many drives recorded.

Counts how many times certain goals are set.

## Driving Plan Until Test - Tayshia's Scenario

DriveBuddy  
Tip of the Day

New Route

Drive #10 3/11/25 >

Drive #9 3/6/25 >

Drive #8 3/2/25 >

Drive #7 2/26/25 >

Drive #6 2/21/25 >

Drive #5 2/18/25 >

Overall Stats 
Record Route 
Goals

Goals

Got a test coming up?

All goals

Overall Stats 
Record Route 
Goals

Goals save

Test date: 4/15/25

Goals to work on:

- backing around...
- changing lanes
- highway traffic
- parallel parking

When to practice:

Time:

S M T W Th F S

0 0 0 0 0 0

How long:

Overall Stats 
Record Route 
Goals

Goals

Upcoming Drives

All goals

Overall Stats 
Record Route 
Goals

< Back

Upcoming Drives:

3/13 - Parallel Park...

3/18 - Backing around

3/20 - Parallel Park...

3/25 - Backing around

3/27 - Parallel Park...

4/1 - Backing around

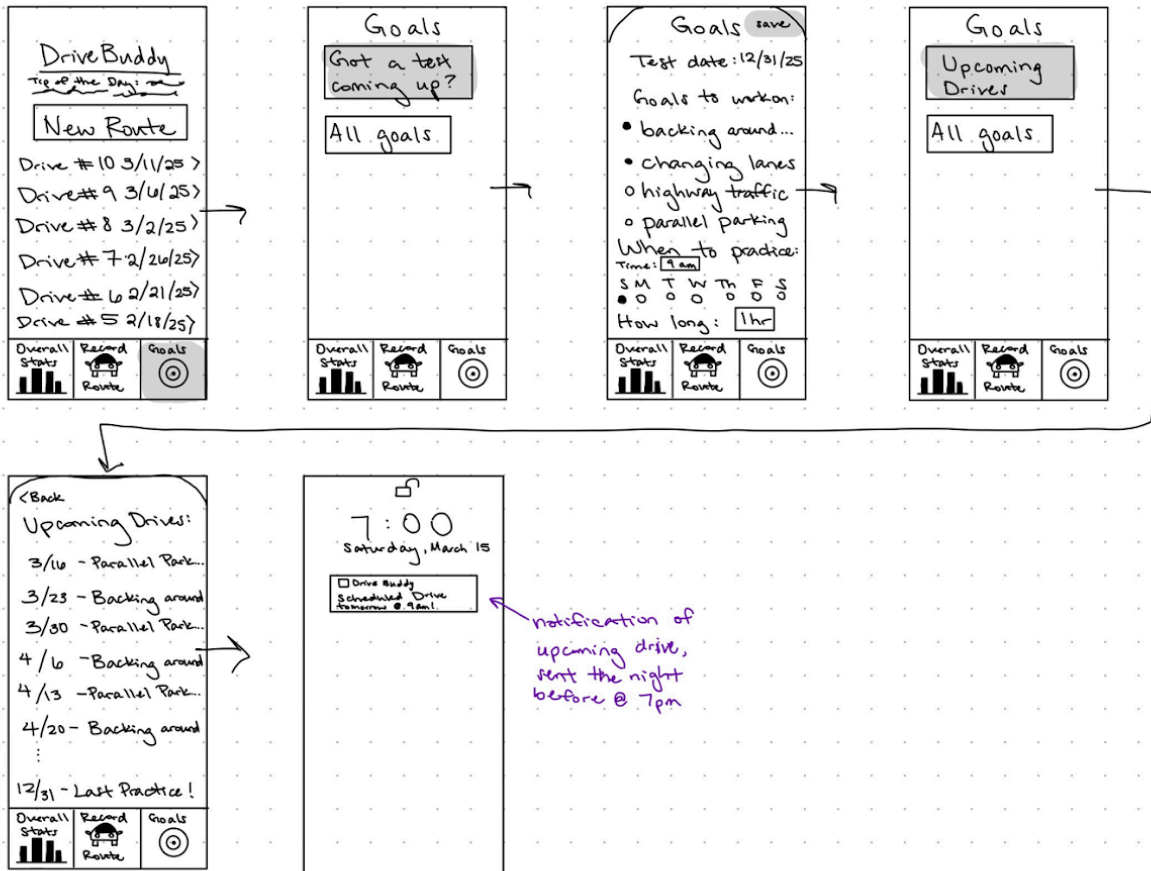
...

4/10 - Last Practice!

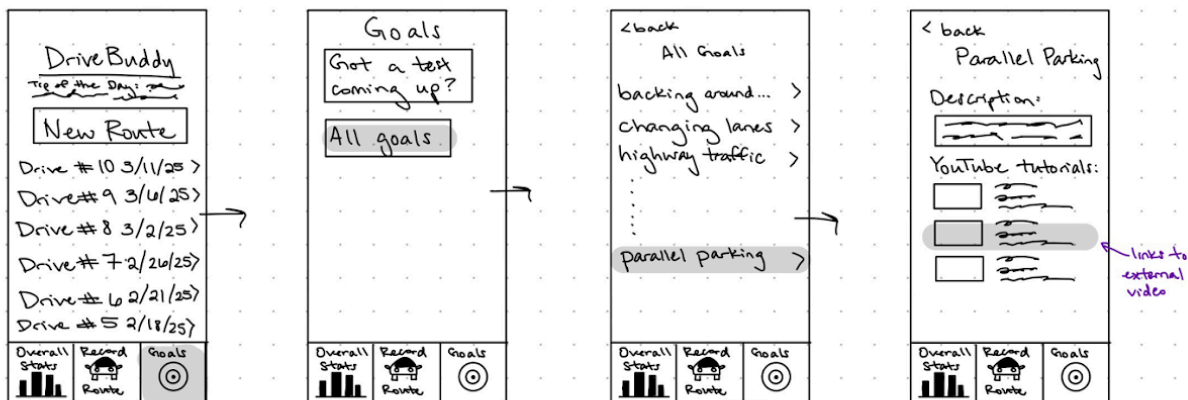
Overall Stats 
Record Route 
Goals

Using data/constraints the app will generate a schedule and then notify the user when a drive is coming up the night before.

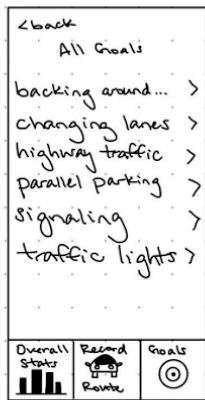
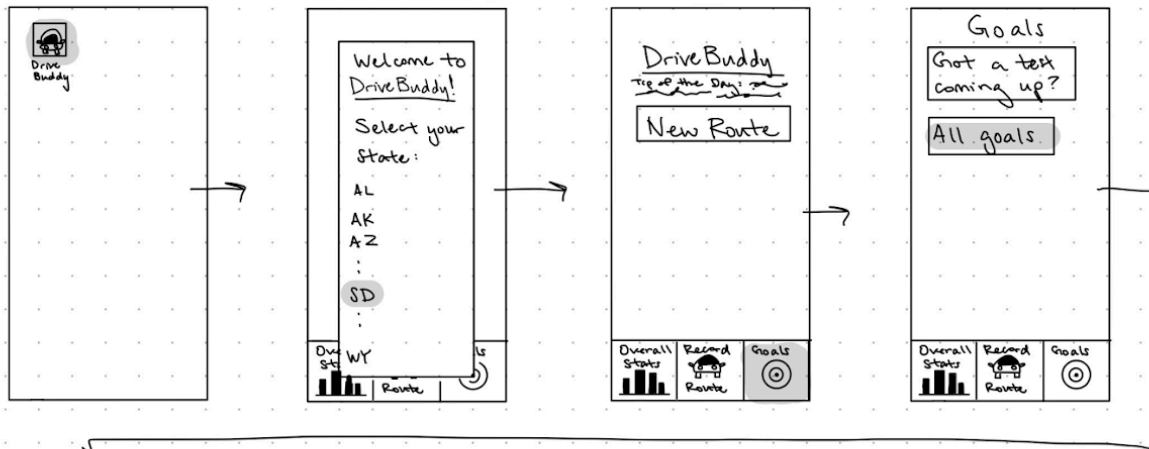
## Notification to drive - Lucas' Scenario



## Tips on how to drive - Sarah's Scenario



# Unique State Rules - Katy's Scenario



only 6 items compared to 19 in Washington

# Route Recording - Ethan's Scenario

