



iOS Developer Case Study

Introduction

We believe that the best way to gauge a developer's skills is to inspect their work on a specific project. This gives the person a chance to show their understanding of the platform they specialized on, regardless of their social or personal skills that could interfere during an in-person interview.

This exercise is a way for you to show us your engineering skills. Here are the basics of how we will evaluate the delivered project:

- Understanding of software engineering approaches and design patterns (especially MVP implementation).
- Proper use of the version control system (Git or Mercurial).
- Good grasp of best practices in Swift and iOS development.
- Pixel perfect implementation of the provided UI designs.
- Delivering a working copy of the project

Beyond these topics, you can feel free to experiment with additional features and functionality, or with cosmetic improvements to the app. Animations, custom transitions between pages, and reusing views and classes would be good additions to show off your other skills.

In case you have any questions, feel free to contact

Disclaimer: This case study is used for hiring purposes only. Volt Lines will in no way use your code for production purposes.

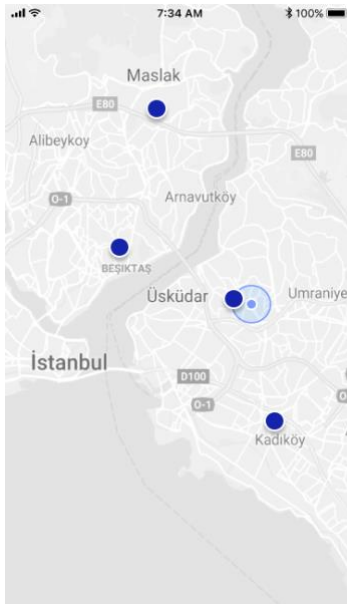
Important Notice: Please do not use any company-related assets, names, or wordings in your project.

What to build?

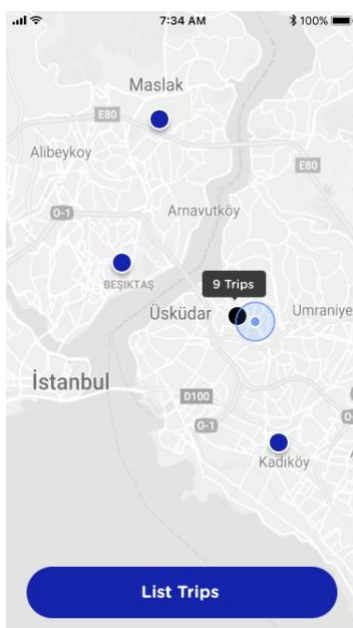
We are expecting you to build a small app that basically shows bus stops (we will name them, stations) around the user, check trips on stations, and book a trip from one of them.

Main Objectives:

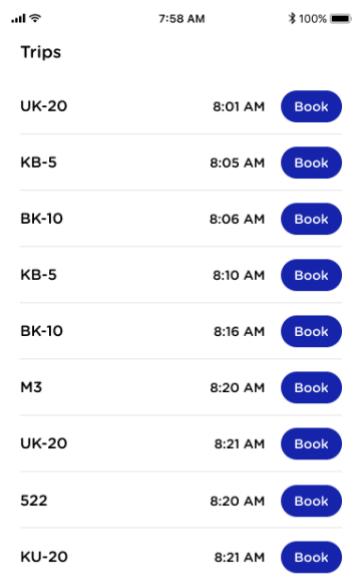
- When the app is opened, get a station list from API, and show the stations around the user on a map:



- When the user taps on a station from the map, show a text bubble describing the number of busses passing from that station, and a button appears to allow the user to show station details:

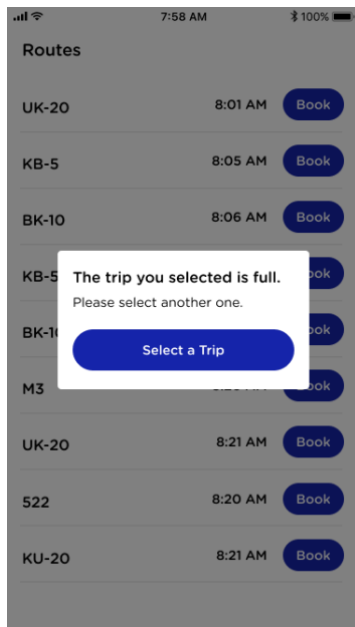


- When the user taps on the button “List Trips”, Show a page listing all the trips passing that station:

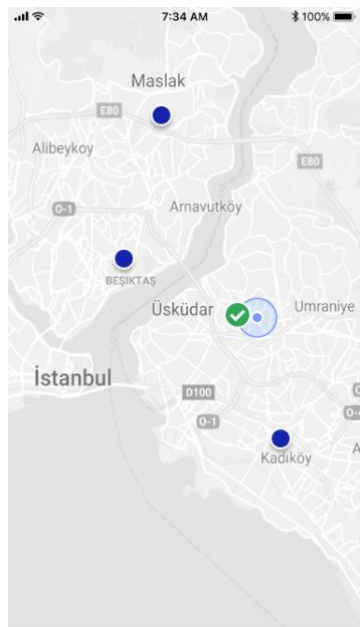


- When the user taps on the button “Book”, send a booking request to the API:

- On Error - Show failure popup on failure:



- On Success - Go back to the first page with the booked station is selected (Optional Bonus):



For submission, we need:

1. The link to Git repository. There should be a steady stream of commit logs, displaying your progression through the exercise clearly (ie. no “here is the app” commit at the end).
2. Demo of the application as a short video and a fully functional project.
P.S. sending a half project that is working is much better than a non-working project
3. A document explains the used patterns, technologies, and important diagrams.

Reminder: Please do not use any company-related assets, names, or wordings in your project.

Giveaways

1. For getting stations info, You can use request to the endpoint

GET: <https://demo.voltlines.com/case-study/6/stations>

The response will have the structure:

```
{
  "stations" : [
    {
      "id" : 2,
      "name" : "ST-2",
      "trips_count" : 25,
      "center_coordinates": "41.060243, 29.011215",
      "trips": [
        {"id":1, "bus_name":"UK-20", "time":"8:01 AM"},
        {"id":2, "bus_name":"KB-5", "time":"8:05 AM"},
        {"id":3, "bus_name":"BK-10", "time":"8:06 AM"},
        {"id":4, "bus_name":"KB-5", "time":"8:10 AM"},
        ...
      ]
    },
    ...
  ]
}
```

2. You can send a booking request using the endpoint

POST: https://demo.voltlines.com/case-study/6/stations/<station_id>/trips/<trip_id>

P.S. this endpoint will return an error for the station with id = 400

3. The image assets needed to implement the design can be downloaded from [this link](#).