

**CS102****Spring 2020/21**Project  
Group**G2F**

Assistant:

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# ~ Train Management System ~

Fliers

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Criteria	TA/Grader	Instructor
Presentation		
Overall		

## Project User-Interface Design Report

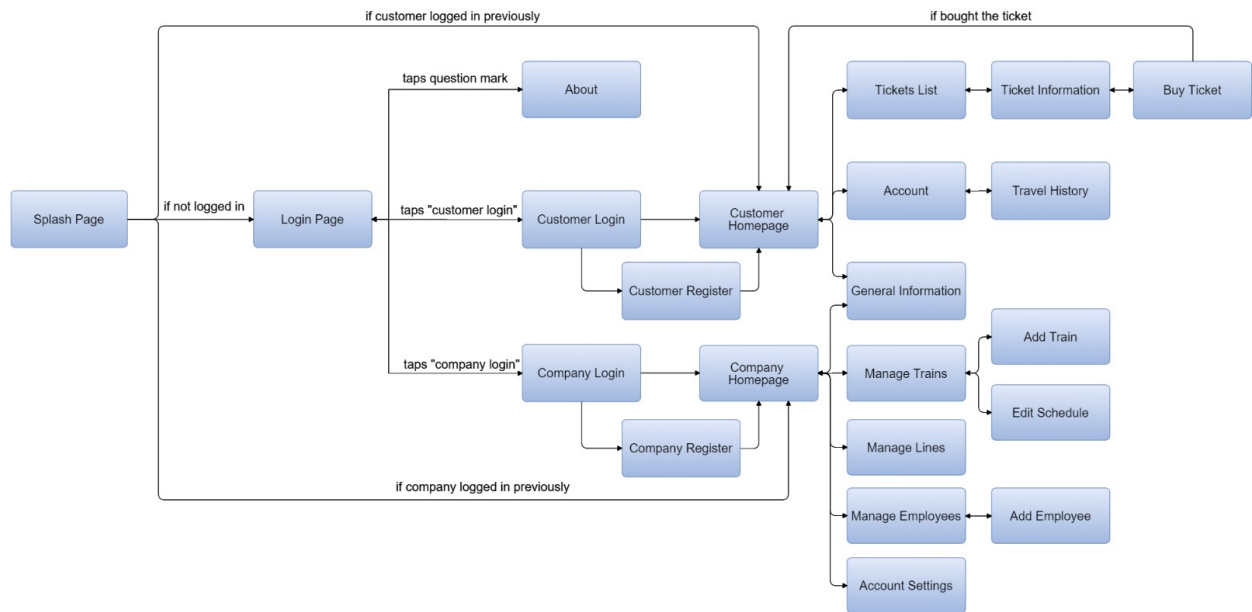
**( version 2.0 )****4 April 2021**

### 1. Introduction

The purpose of this report is to provide sufficient information about the user-interface design stage of the Train Management System, named as Trainly. Trainly will benefit both customers and companies, providing a common place to manage their travels, in case of customers, and trains/budget/statistics, in case of companies. A customer will be able to buy tickets from the provided list by the app satisfying conditions, such as arrival and departure time, given by the customer. Companies will be able to manage trains, lines and employees. They will be able to add and remove trains to lines and edit their schedule. Also, it is an option to automatically create the schedule. Additionally, Both companies and customers will be able to see a page that provides general information about lines and other statistics.

## 2. Details

### 2.1 Sitemap

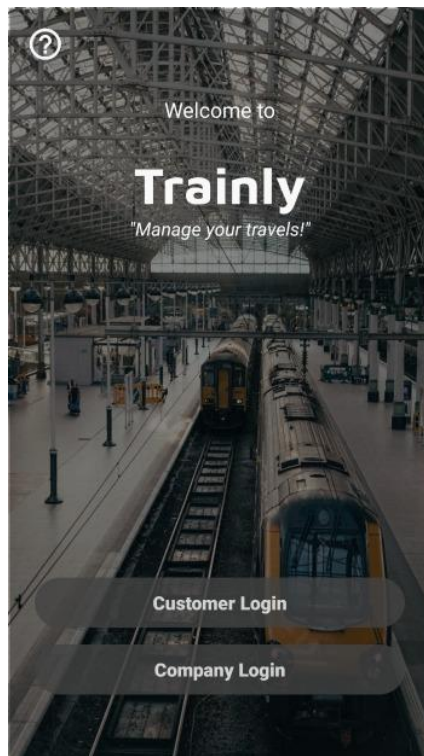


### 2.2 Pages That Will Be Used by Both Users

#### 2.2.1 Login Page

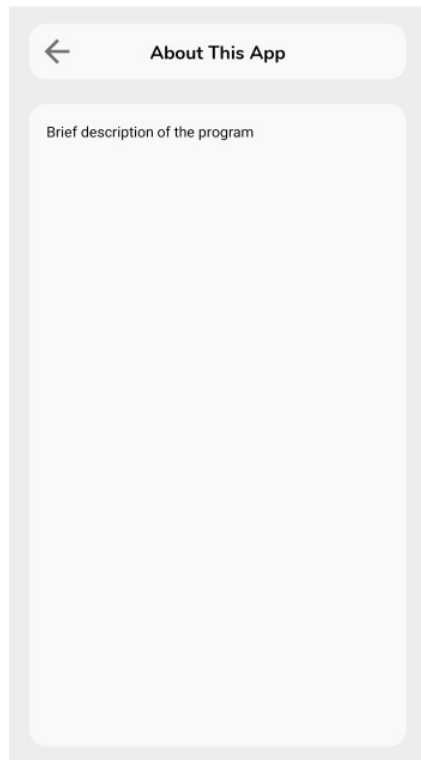
This page is designed to be an entrance for both customers and companies. If the user clicks the “Customer” button, s/he will be taken to the “Customer Login” page. If the user clicks the “Company” button, s/he will be taken to the “Company Login” page. If the user clicks the question mark on the top-left side, s/he will be taken to the “About” page.

If the user is already logged in as a customer or company, this page will not be displayed and the user will be directed to the related page, “Customer Login” or “Company Login” pages.



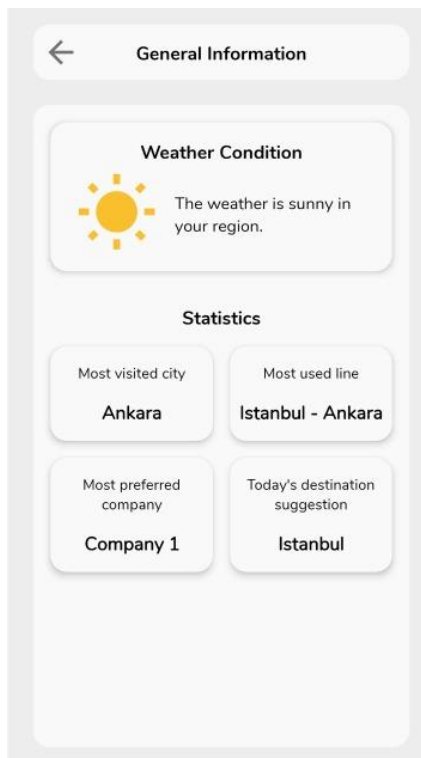
### 2.2.2 About Page

This page is created to provide information about the app and its purposes. It includes a basic description about the app. Users can turn back to the login page to go further and log into their account.



### 2.2.3 General Information

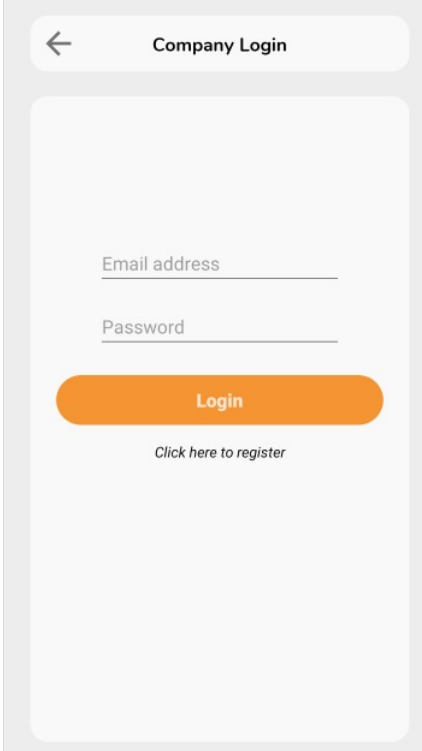
This page will provide general information about lines, air condition, the most visited places, frequently used companies, passenger density on different lines etc.



## 2.3 Pages That Will Be Used By Companies

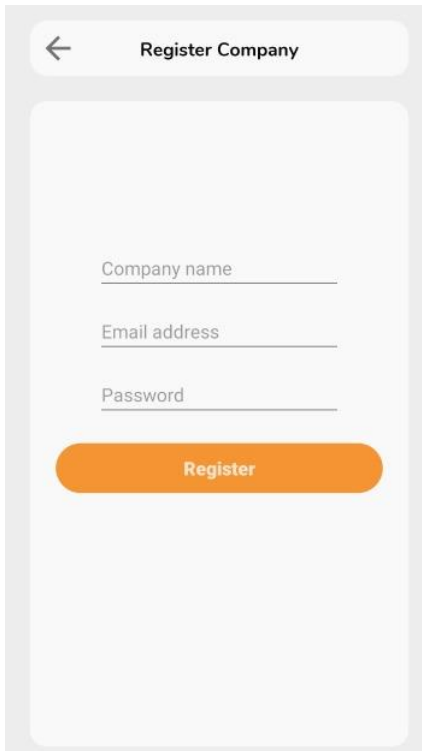
### 2.3.1 Company Login

Companies can log in to their accounts using this page. They need to enter the email address of the company and the password of the company account. Then, they can go to their company homepage by clicking on the “Login” button. If the email and password combination is valid the app will directly lead to the company homepage. If the company does not have an account, they can click on the “Click here to register” button to create a company account.

A mobile app interface for company login. At the top, there is a header bar with a back arrow on the left and the text "Company Login" in the center. Below the header, there is a large white rounded rectangle containing the login form. The form has two input fields: "Email address" and "Password", each with a horizontal line for text entry. Below these fields is an orange rounded button with the text "Login" in white. Underneath the button is a link that says "Click here to register" in a smaller, italicized font.

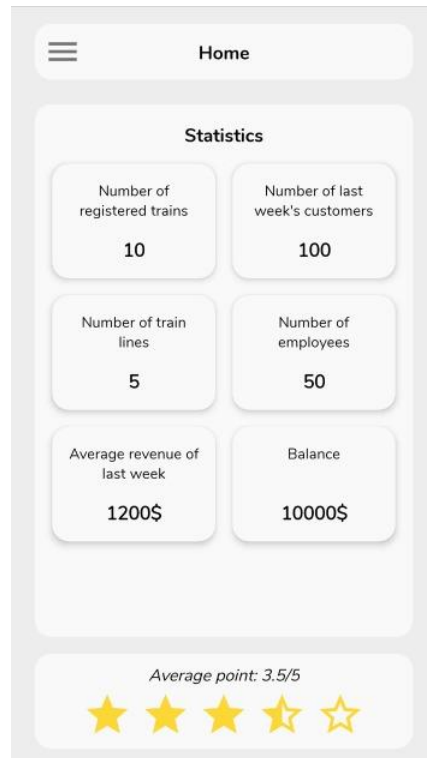
### 2.3.2 Company Register

The diagram below shows the company register page. User enter the company name in the first line. They enter the email address for the account in the second line. They enter the password for the account in the third line. When they click the “Register” button, they create a new account and the program takes them to the company's home page. User can go back to the previous page (company login page) by clicking on the arrow on the top left corner.

A mobile app interface for company registration. At the top, there is a header bar with a back arrow on the left and the text "Register Company" in the center. Below the header, there is a large white rounded rectangle containing the registration form. The form has three input fields: "Company name", "Email address", and "Password", each with a horizontal line for text entry. Below these fields is an orange rounded button with the text "Register" in white.

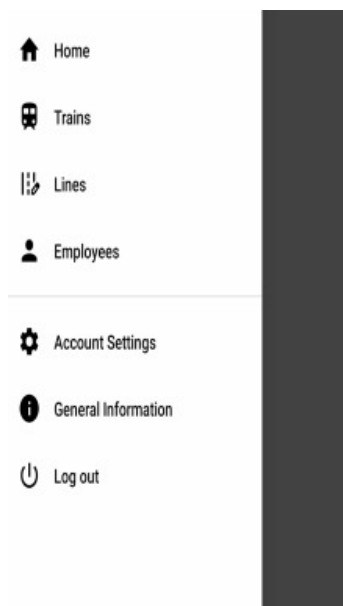
### 2.3.3 Company Homepage

This page shows the statistics about the company. These statistics include number of registered trains, monthly average customer number, number of train lines, number of employees, average revenue of last week, budget and number of last week's customers. These statistics help the company to determine their future activities. Below these statistics, there is a point section which provides average points of the company out of 5 given by the customers. These points are shown by 5 stars which refer to the maximum point of 5. On the upper left corner there is a button to go to the menu which can lead you to whichever page about the company you want to go.



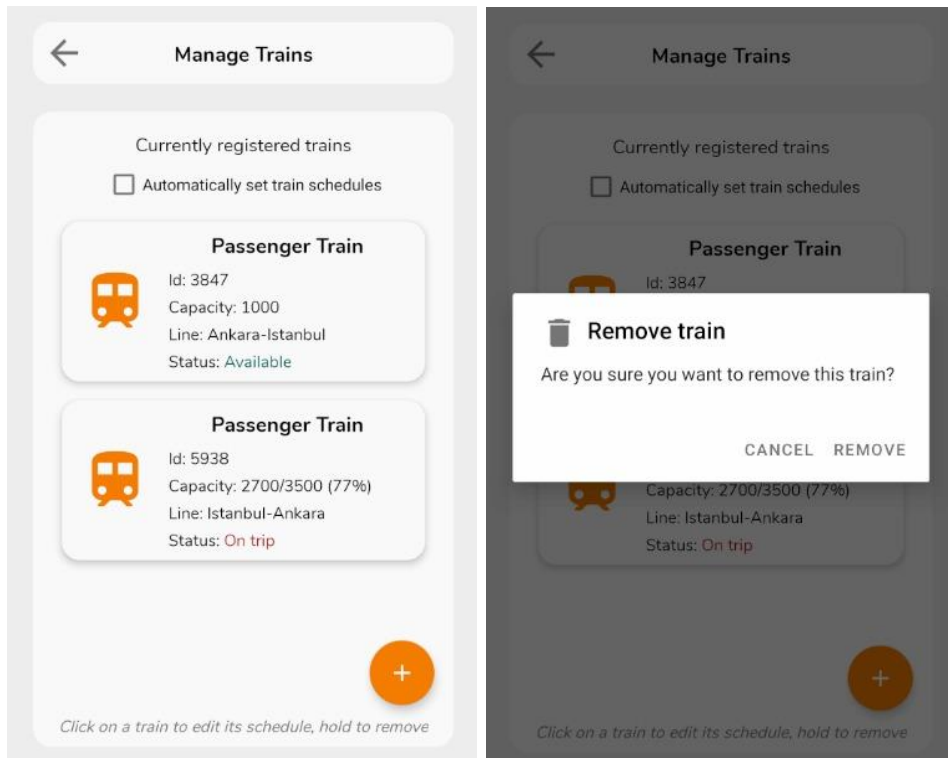
### 2.3.4 Company Menu

This menu leads the user to several pages about the company. "Home" button leads to the Company Homepage. "Trains" button leads to a page where companies can control their trains. "Lines" button leads to a page where companies can control which lines they are using. "Employees" button leads to a page where companies can control their employees. "Account Settings" button leads to a page where the users can change their settings. "General Information" button leads to the general information which can be reached by both the customers and the companies. "Log out" button closes the account safely and leads the user to the login page.



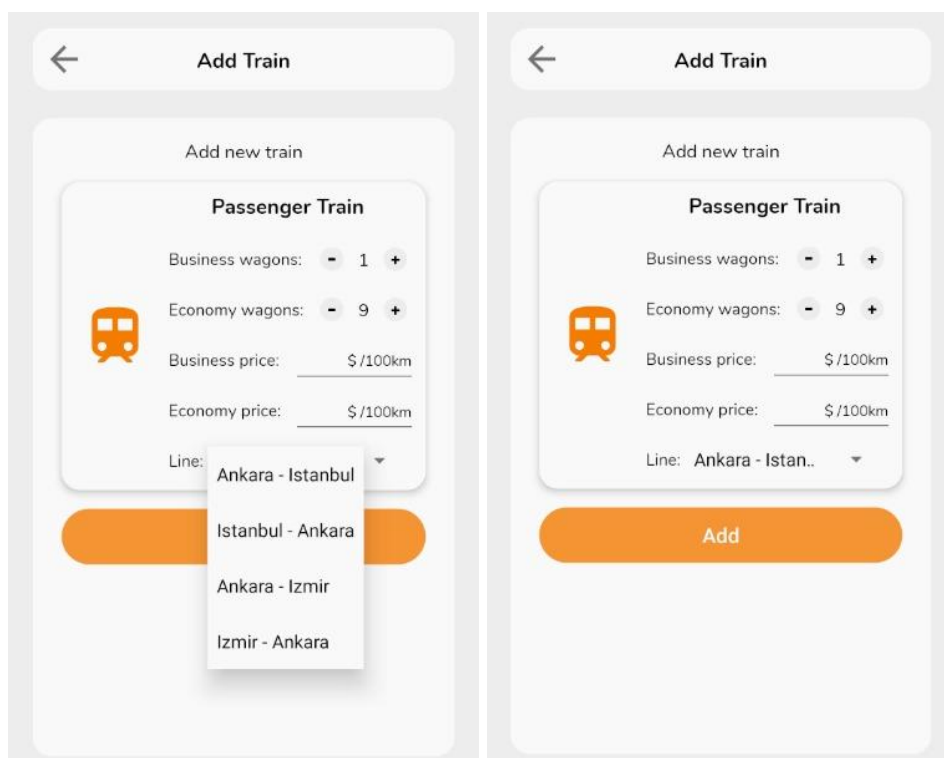
### 2.3.5 Manage Trains

The diagram below shows the Manage Trains page. In this page, user can see a list of trains owned by the company. Each train has a card showing the information about the train. Train ID, train capacity, the line that the train is assigned to, and the status of the train are the information shown in the cards. By clicking on the plus at the lower right corner, user can add new trains. By clicking train cards, users can schedule a trip. By holding the train cards, the user can delete a train. If a user clicks on the arrow on the upper left corner, they go to Company Homepage.



### 2.3.6 Add Train

The diagram below shows the Add Train page. User enters the wagon number and assigns the train to a line before clicking on the “Add” button. When “Add” button is clicked, a train will be added to the company with the wagon and line information provided by the user. By clicking the arrow on the upper left, users can navigate to the previous page (Manage Trains page).




### 2.3.7 Edit Schedule

Companies can edit the schedules of their trains using this page. Add the top of the page there is the ID of the train. Below that in a card, there writes the type of the train and the line which it is travelling on. Below this card, there is the planned schedule of the train and at the bottom of the page the user can add a new schedule. If the user clicks on the arrow on the upper left corner, they go to Company Homepage.

← Edit Schedule

Edit schedule information related to the train with the Id number 3847

 **Passenger Train**  
Line: Ankara - Istan..

Departure	24.03.2021	10:00
Arrival	24.03.2021	14:00
Departure	25.03.2021	23:00
Arrival	26.03.2021	01:30

Add Schedule

Departure	Add date	Add time
Arrival	Add date	Add time

Save

### 2.3.8 Manage Lines

Companies can control their existing lines using this page. They can check which lines they are currently using on a list. Every line in the list has two points. By selecting two points, they can add a new line to use after they click on “Save” button. By holding the line name, they can delete a line. If the user clicks on the arrow on the upper left corner, they go to Company Homepage.

← Manage Lines

Currently available lines

Ankara - Istanbul

Ankara - Izmir

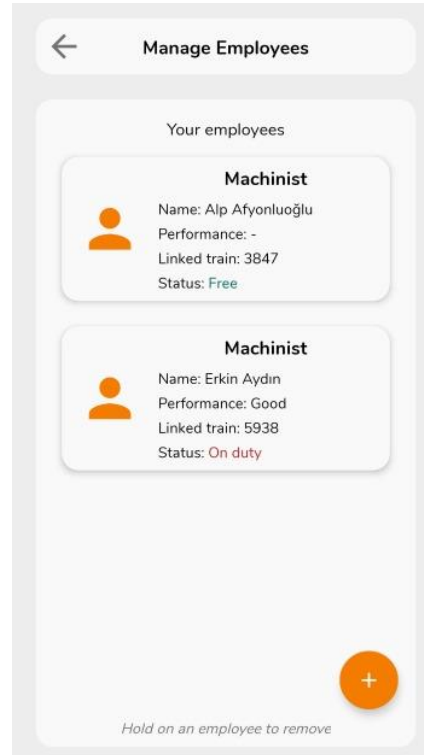
Add Line Between

Place 1 - Place 2

Save

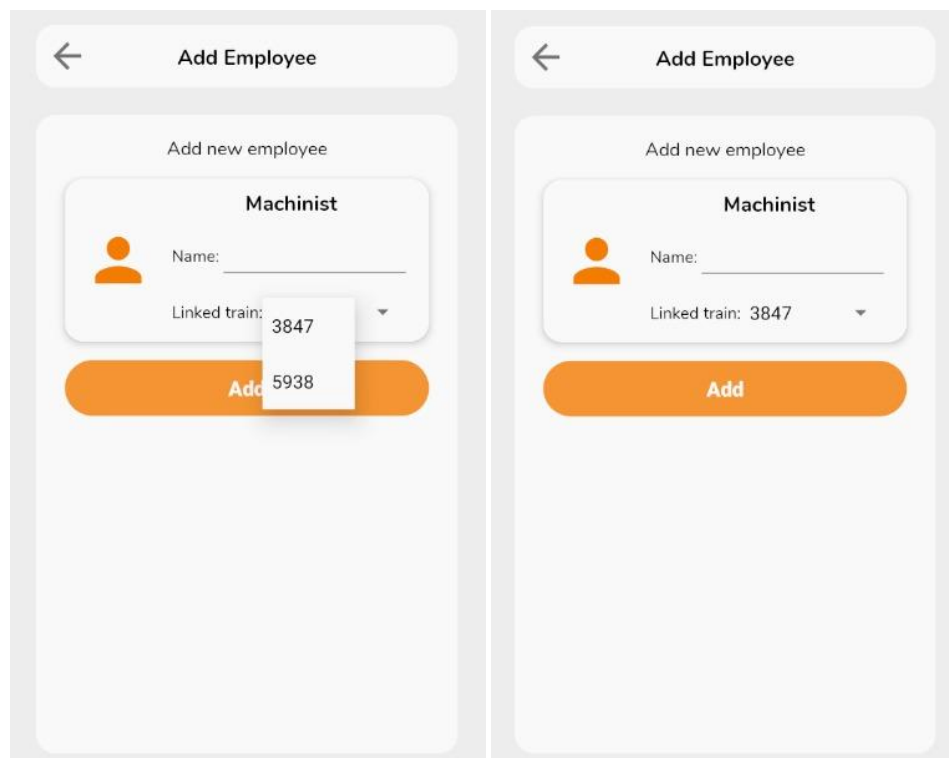
### 2.3.9 Manage Employees

The diagram below shows the Manage Employees page. In this page, user can see a list of employees working for the company. Each employee has a card showing the information about the employee. Employee name, employee performance, linked train, and the status of the employee are the information shown in the cards. By clicking on the plus at the lower right corner, user can add new employees. By holding the employee cards, the user can delete an employee. If a user clicks on the arrow on the upper left corner, they go to Company Homepage.



### 2.3.10 Add Employees

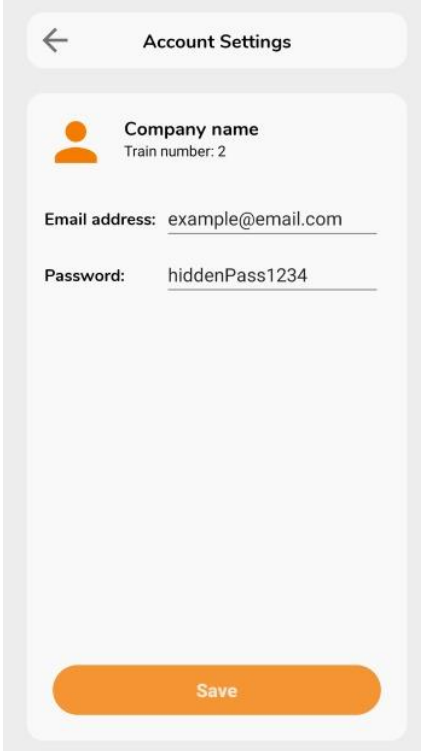
The diagram below shows the Add Employee page. User enters the employee name and assigns a train to an employee by selecting the train's ID from a list before clicking on the "Add" button. When "Add" button is clicked, an employee will be added to the company with the name and linked train information provided by the user. By clicking the arrow on the upper left, users can navigate to the previous page (Manage Employees page).





### 2.3.11 Company Account

Companies can view their account information on this page. At the top of the page there are the company name and the number of trains that company has. The users can change their email address and password by writing a new one and clicking on the “Save” button. If a user clicks on the arrow on the upper left corner, they go to Company Homepage.



The image shows a mobile app interface for "Account Settings". At the top, there is a back arrow and the title "Account Settings". Below this, there is a section for the company profile, featuring an orange person icon, the text "Company name", and "Train number: 2". Underneath the profile section are two input fields: "Email address:" with the value "example@email.com" and "Password:" with the value "hiddenPass1234". At the bottom of the form is a large orange button labeled "Save".

## 2.4 Pages That Will Be Used by Customers

### 2.4.1 Customer Login

Customers can log in to their accounts using this page. They need to enter their account's registered email address and password. Then, they can go to their “Customer Homepage” by clicking on the “Login” button. If the email and password combination is valid the app will directly lead to the customer's home page. If the customer does not have an account, they can click on the “Click here to register” button, which will direct them to the “Customer Register” page, to create a customer account.

This page looks very similar to the “Company Login” page.

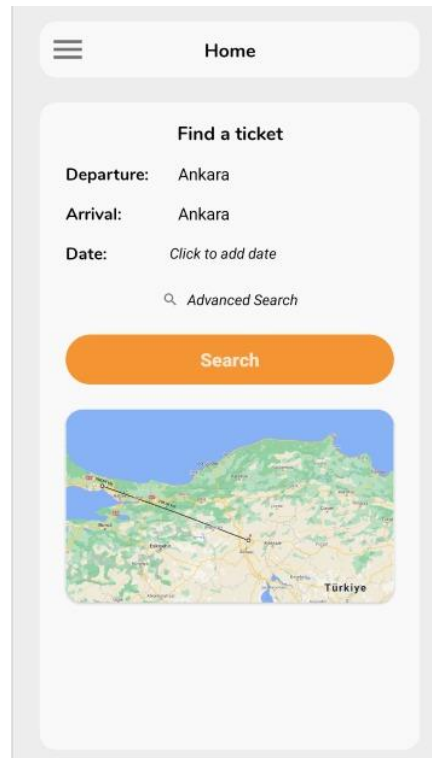
### 2.4.2 Customer Register

Customers can login to their accounts using this page. They need to enter their account's registered email address and password. Then, they can go to their “Customer Home” page by clicking on the “Login” button. If the email and password combination is valid the app will directly lead to the customer's home page. If the customer does not have an account, they can click on the “Click here to register” button, which will direct them to the “Customer Register” page, to create a company account.

This page looks very similar to the “Company Register” page.

### 2.4.3 Customer Homepage

This page will provide a place to choose the departure time, arrival time, their dates, a map and a “Search” button. Customers can also choose more specific features of their seats (i.e. window side or corridor side selection) by using Advanced Search. After the user chooses, the app will direct the user to “Ticket List” page.



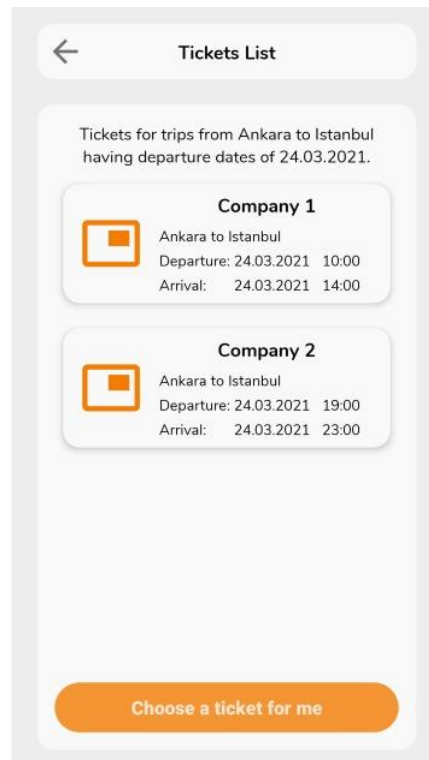
### 2.4.4 Customer Menu

This menu leads the user to several pages a customer can use. “Home” button leads to the Customer Homepage. “Account” button leads to a page where the users can change their settings and see their travel history. “General Information” button leads to the general information which can be reached by both the customers and the companies. “Log out” button closes the account safely and leads the user to the login page.



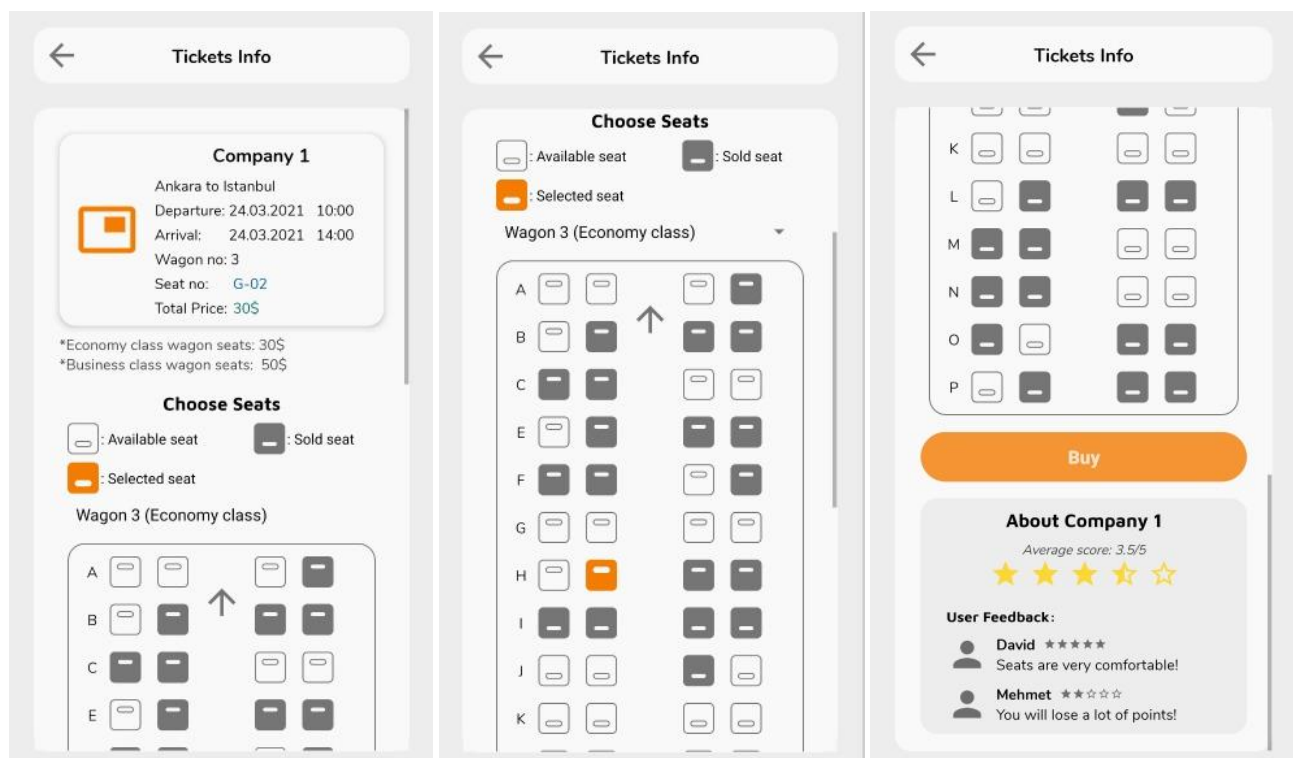
## 2.4.5 Tickets List

This page will provide available trips to buy satisfying entered choices in the Customer Homepage. If the customer chooses one from the provided list, then the app will direct them to the Ticket Information page of the chosen trip.



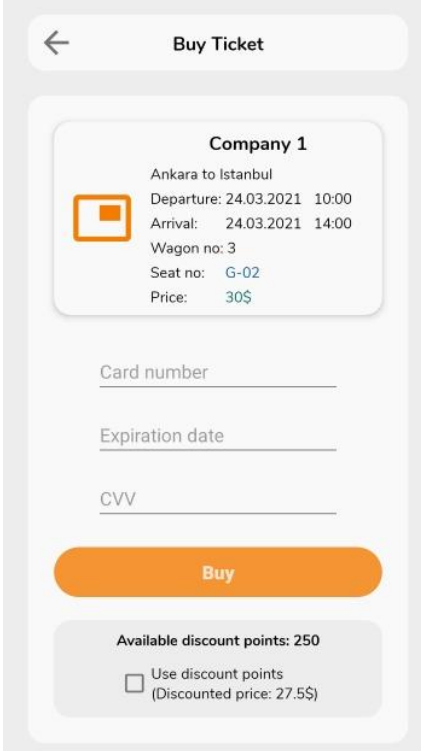
## 2.4.6 Ticket Information

This page will display wagons of the previously chosen trip, and a “Buy” button. At the bottom of the page there will be a comment from a customer used that company previously. When the customer clicks the “Buy” button, the app will direct the user to the Buy Ticket page.



### 2.4.7 Buy Ticket

This page will ask the user to enter credit card number, expiration date and CVV. Below, an option for using discount points will be provided. When user clicks on “Buy” button, the ticket will be bought and the user will be directed to Customer Homepage again.



The 'Buy Ticket' screen features a back arrow and title at the top. Below is a ticket summary for 'Company 1' showing the route 'Ankara to Istanbul', departure and arrival times for 24.03.2021, wagon number 3, seat G-02, and a price of 30\$. Input fields for 'Card number', 'Expiration date', and 'CVV' are provided. An orange 'Buy' button is centered below these fields. At the bottom, it shows 'Available discount points: 250' and a checkbox option to 'Use discount points' which would result in a 'Discounted price: 27.5\$'.

← Buy Ticket

**Company 1**

Ankara to Istanbul

Departure: 24.03.2021 10:00

Arrival: 24.03.2021 14:00

Wagon no: 3

Seat no: G-02

Price: 30\$

Card number

Expiration date

CVV

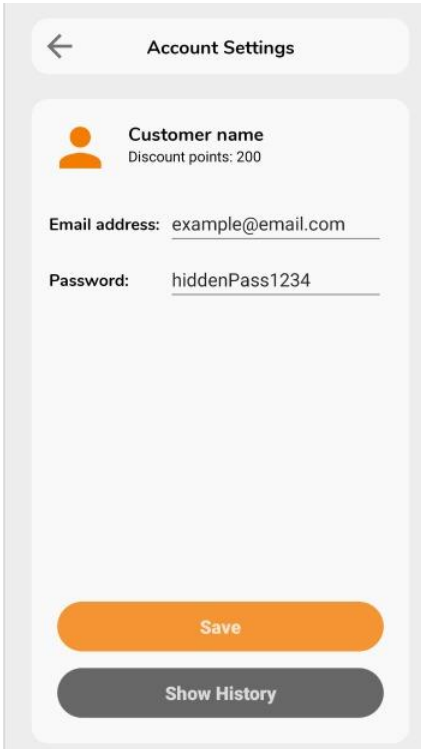
Buy

Available discount points: 250

☐ Use discount points  
(Discounted price: 27.5\$)


### 2.4.8 Customer Account

Customers can view their account information on this page. The users can change their email address and password by writing a new one and clicking on the “Save” button. They can also view their history of train trips by choosing the “Travel History” option on the menu below which will direct them to that page.



The 'Account Settings' screen includes a back arrow and title. It displays a user profile with an orange circle icon, 'Customer name', and 'Discount points: 200'. Below are input fields for 'Email address' (pre-filled with 'example@email.com') and 'Password' (pre-filled with 'hiddenPass1234'). At the bottom, there are two buttons: an orange 'Save' button and a grey 'Show History' button.

← Account Settings

 **Customer name**  
Discount points: 200

Email address: example@email.com

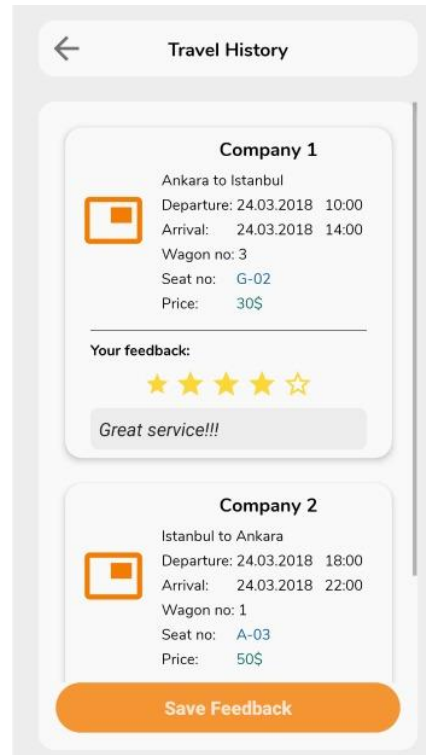
Password: hiddenPass1234

Save

Show History

### 2.4.9 Travel History

This page shows the past trips of the user. User can re-read their feedback. They can edit feedback and given stars by clicking on them. By clicking the arrow on the upper left corner, user can navigate to the previous page (Account page).



## 3. Summary & Conclusions

Trainly is an app which aims to make it easier to manage train trips both for companies and customers. It allows it for companies by offering a simple but useful interface in which they can have full control over their trains, trips, lines and company. They can set and cancel trips, add and remove trains to the lines, display company and employee information. Trainly helps customers by presenting them a fancy and most importantly easy interface. Customers can easily search and get advice for tickets, prioritize their favourite company, display their trip history and ticket information in Trainly's interface. Both companies and customers can monitor and change their account information easily. Trainly aims to manage as many things as possible without confusing and ugly interfaces. Therefore, it directs users only to the pages that they will need and avoids taking them to the pages that they will not use. Hence, the interface of Trainly will save its users' time while enabling them to manage their train business and train trips.