Cairo University

Faculty of Computers and Artificial Intelligence

CS251

Software Engineering I

GoFo

Software Design Specifications

Version 1.0

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CS251: Phase 2 – <Squad 3>
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Team

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Document Purpose and Audience

Document Purpose

- In this document we show the specifications of the software needed by the client.
- The developer took the instructions and specifications from the user the make his software.
- This document makes the software be done easily by the developer.
- This document leads to a better and more organized software.

Document Audience

The Audience of this Document:

- The Administrator
- The Developer
- The Users who have Problems in the Application or facing Difficulties in dealing with the Application

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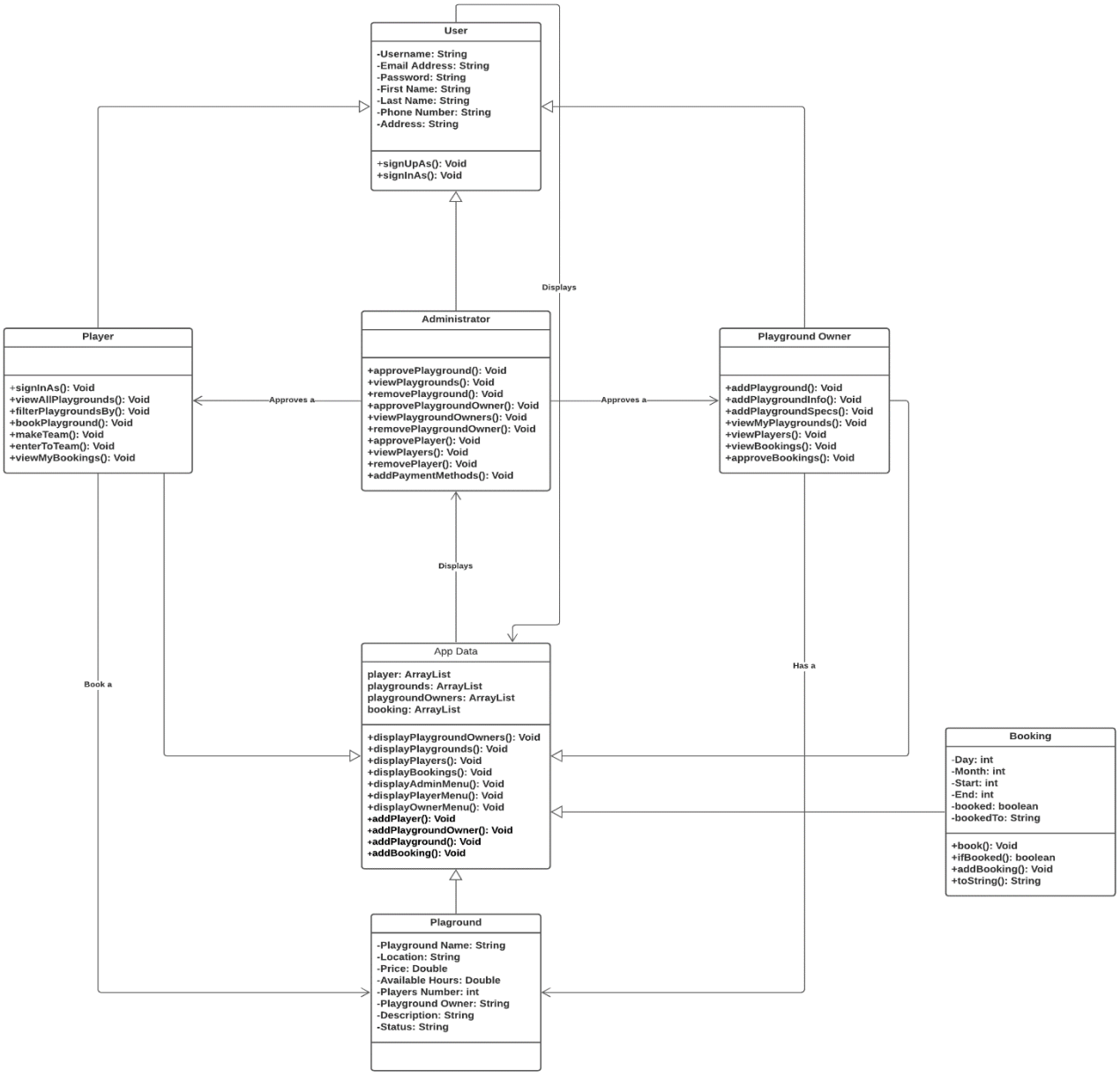
System Models

I. Class Diagram(s)



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II. Class Descriptions

Class ID	Class Name	Description & Responsibility
1.	User	Responsible for signing up to the application by entering the user information and to choose sign up as an Administrator, Playground Owner or Player.
2.	Administrator	It is the most important class. It is responsible for approving Playground Owners, Players, checking Playgrounds specifications to meet requirements, adding payment methods and controlling the whole application.
3.	Playground Owner	Responsible for adding playgrounds to the application including its description, status, specifications, available hours, price per hour and number of players and approve the bookings made by the players.
4.	Player	Responsible for booking a playground which meets his needs by making a team and invite players to enter it or entering an existing team.
5.	Playground	It includes all the playground's information which is put by the Playground Owner.
6.	App Data	Responsible for displaying all the data of the application including Playground Owners, Playgrounds, Players, Administrator Menu, Playground Owner Menu and Player Menu and used to make generalizations.

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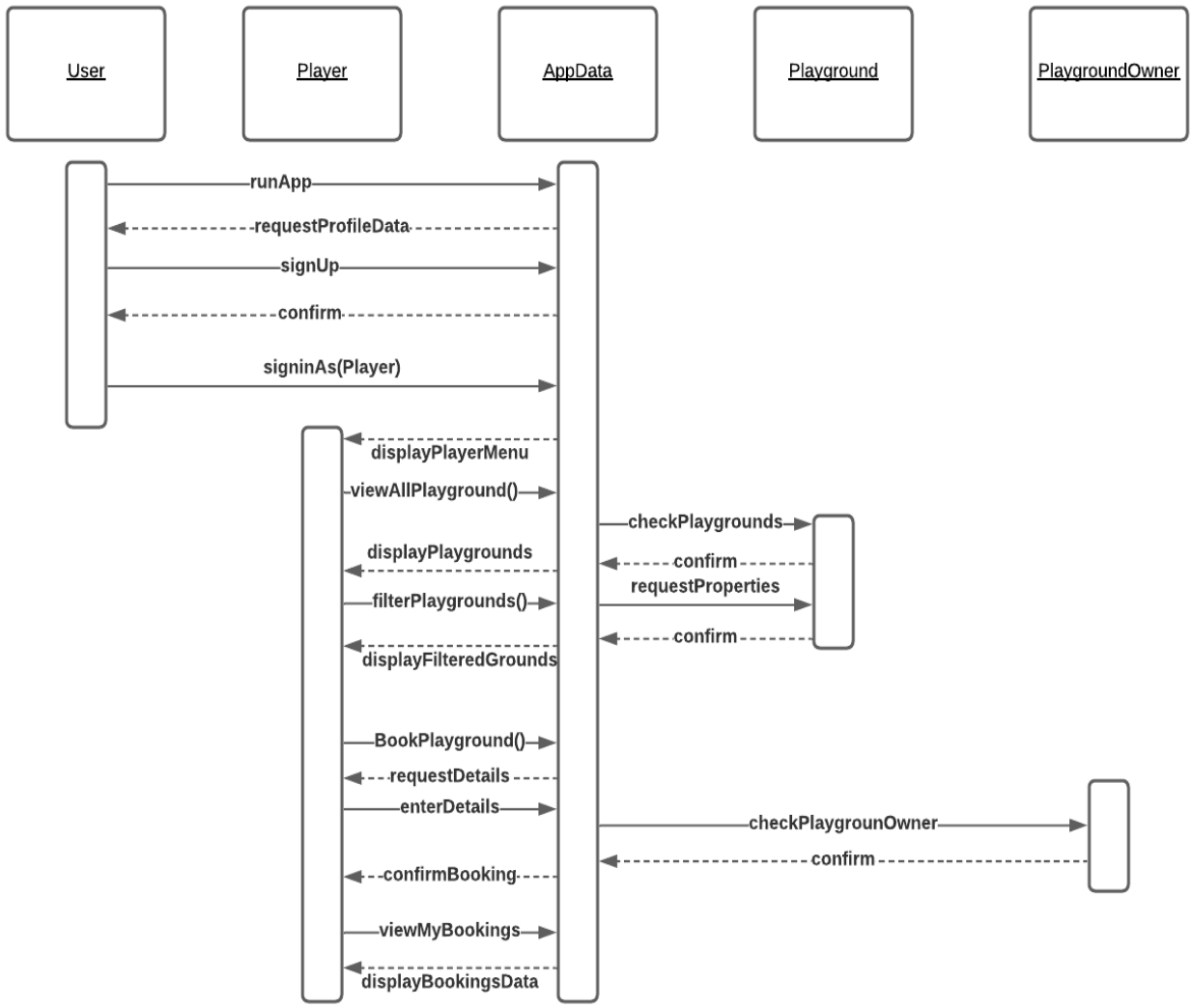
Sequence diagrams



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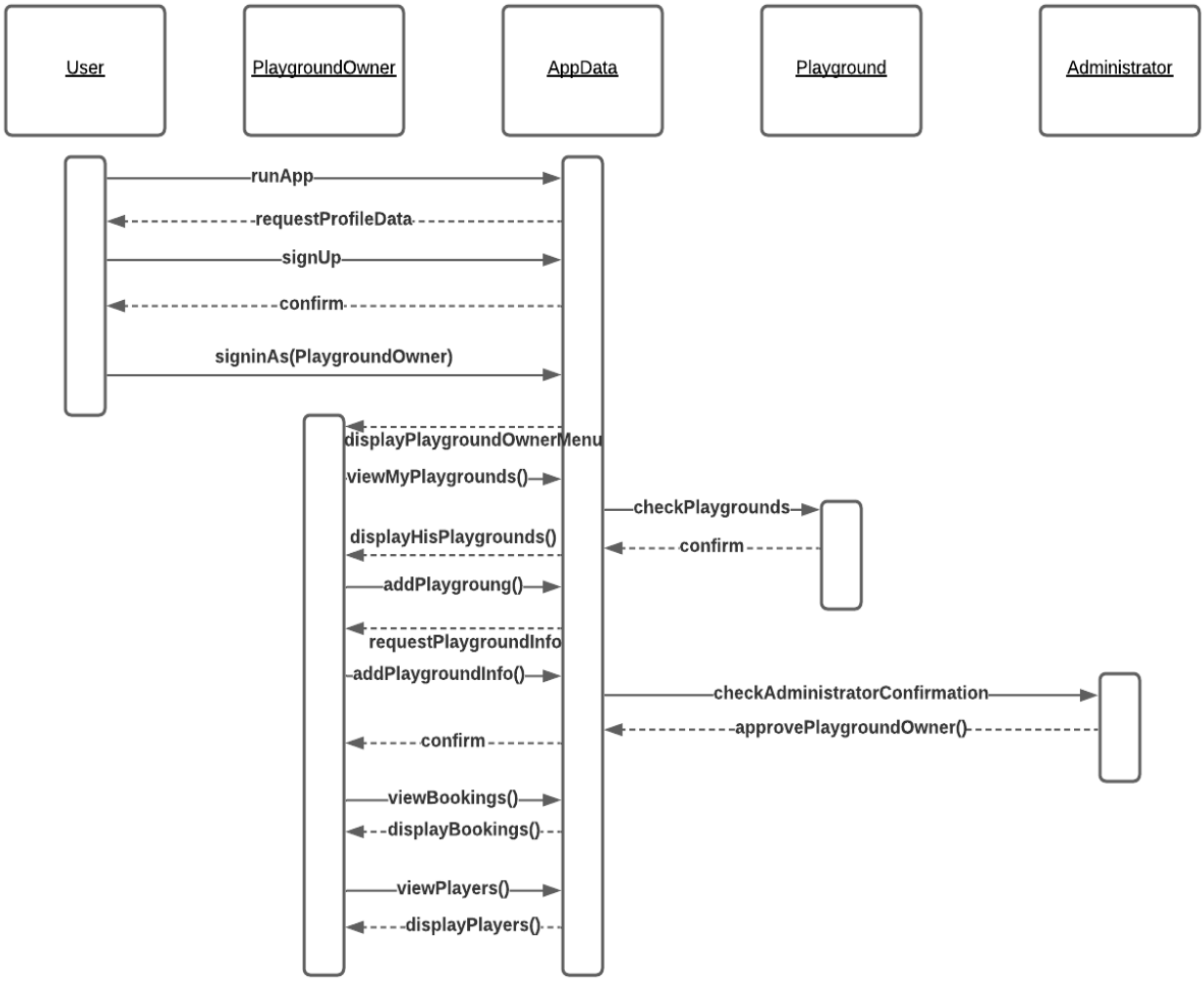

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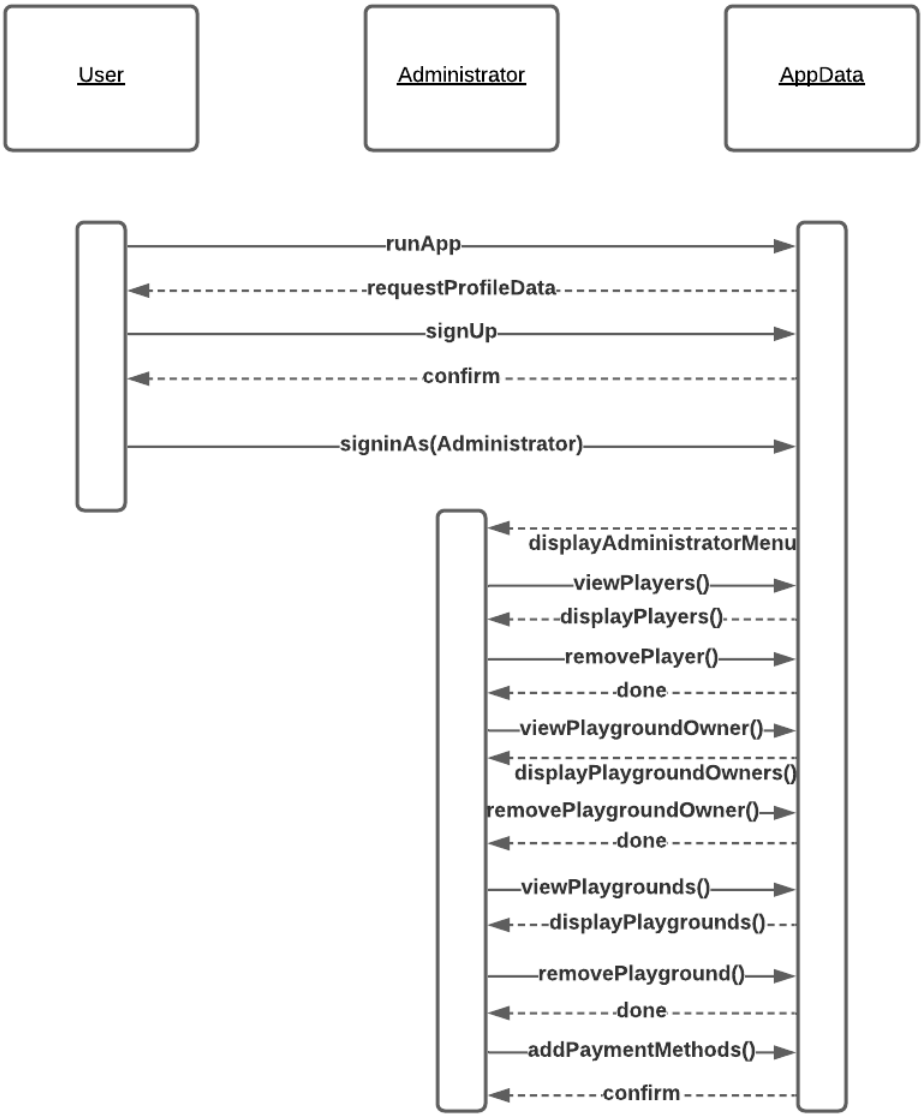

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Class - Sequence Usage Table

Sequence Diagram	Classes Used	All Methods Used
1. Player	Class Player Class AppData Class User Class Playground Class PlaygroundOwner	Signup() signinAs() displayPlaygrounds() bookPlayground() displayBookings()
2. PlaygroundOwner	Class User Class PlaygroundOwner Class AppData Class Playground Class Administrator	Signup() signinAs() displayPlayers() displayPlaygrounds() displayBookings() viewPlayers() viewBookings()
3. Administrator	Class User Class Administrator Class AppData	Signup() signinAs() viewPlayer() removePlayer() viewPlaygrounds() removePlayground() viewPlagroundOwners() removePlaygroundOwner()

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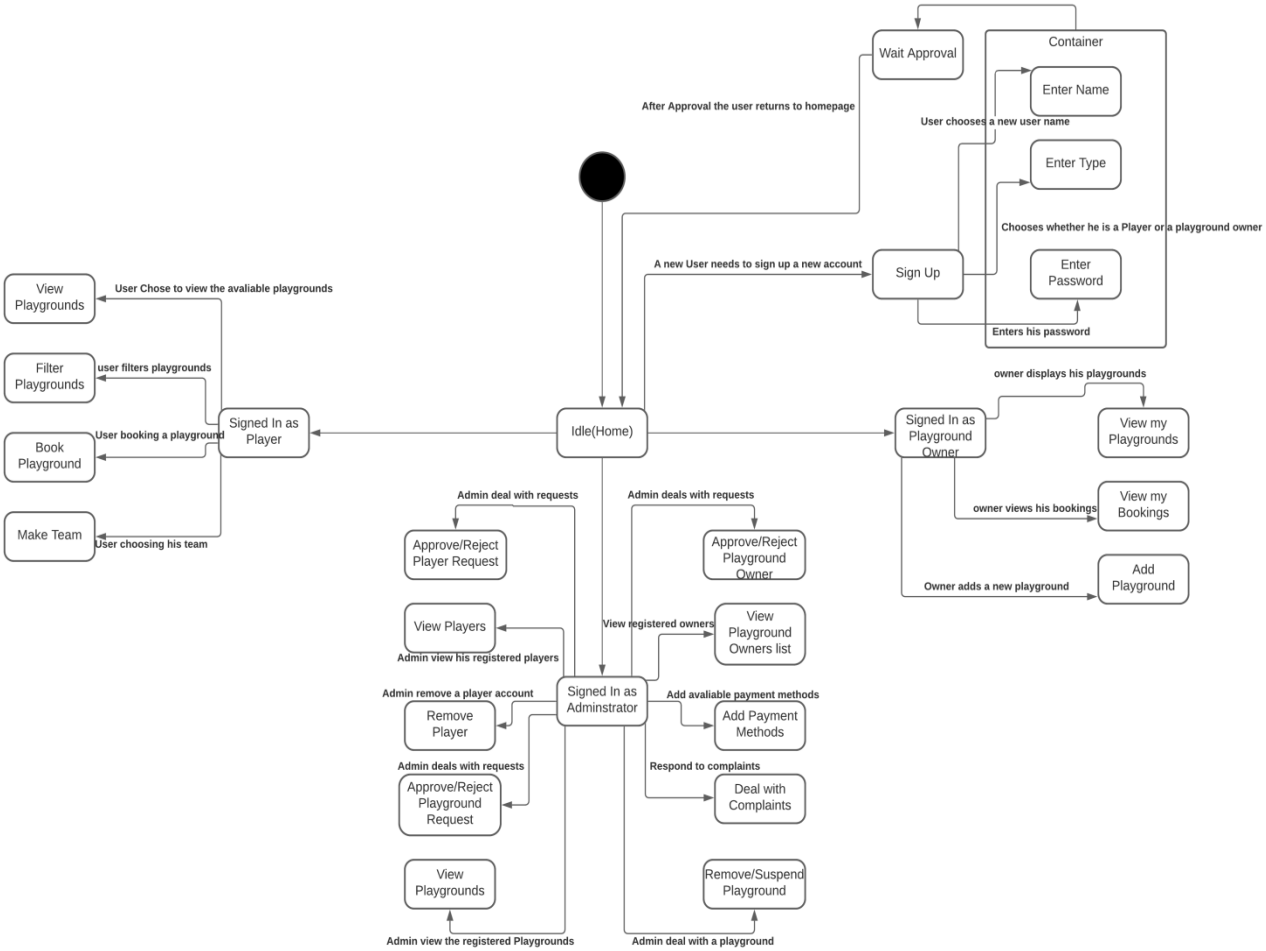
IV. State Diagram



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Tools

- Lucidchart
- Intellij IDEA

Ownership Report

Item	Owners
Class Diagram and Class Descriptions and Part of the Code.	Aly Muhammad Sayed Aly
Sequence Diagrams and Sequence Usage Table and Part of the Code.	Ahmed Gamal Ahmed Muhammad
State Diagram and Part of the Code.	Ahmed Gamal Abdelmoniem Muhammad