Cairo University

Faculty of Computers and Artificial Intelligence

CS251

Software Engineering I

GoFo Project

Software Design Specifications

Version 1.0

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Prepared by Mostafa Saad and Mohammad El-Ramly V1.0
Edited by Mohamed Samir, Updated to V2.0 by Mohammad El-Ramly 10/4/2020 and V3.0 25/5/2021   **| 2**

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Team

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Document Purpose and Audience

This document is a description of a GoFo "Go Football" software system to be developed. The Objective of this document is to ensure that the final outputted software product meets the requirements of the end customer.

This document is about :

- A general description of the project.
- Class Diagram and Class Descriptions.
- Sequence Diagram & State Diagram.

The target audience who expected to read this document :

- The CEO.
- The Project Manager.
- The Customer.
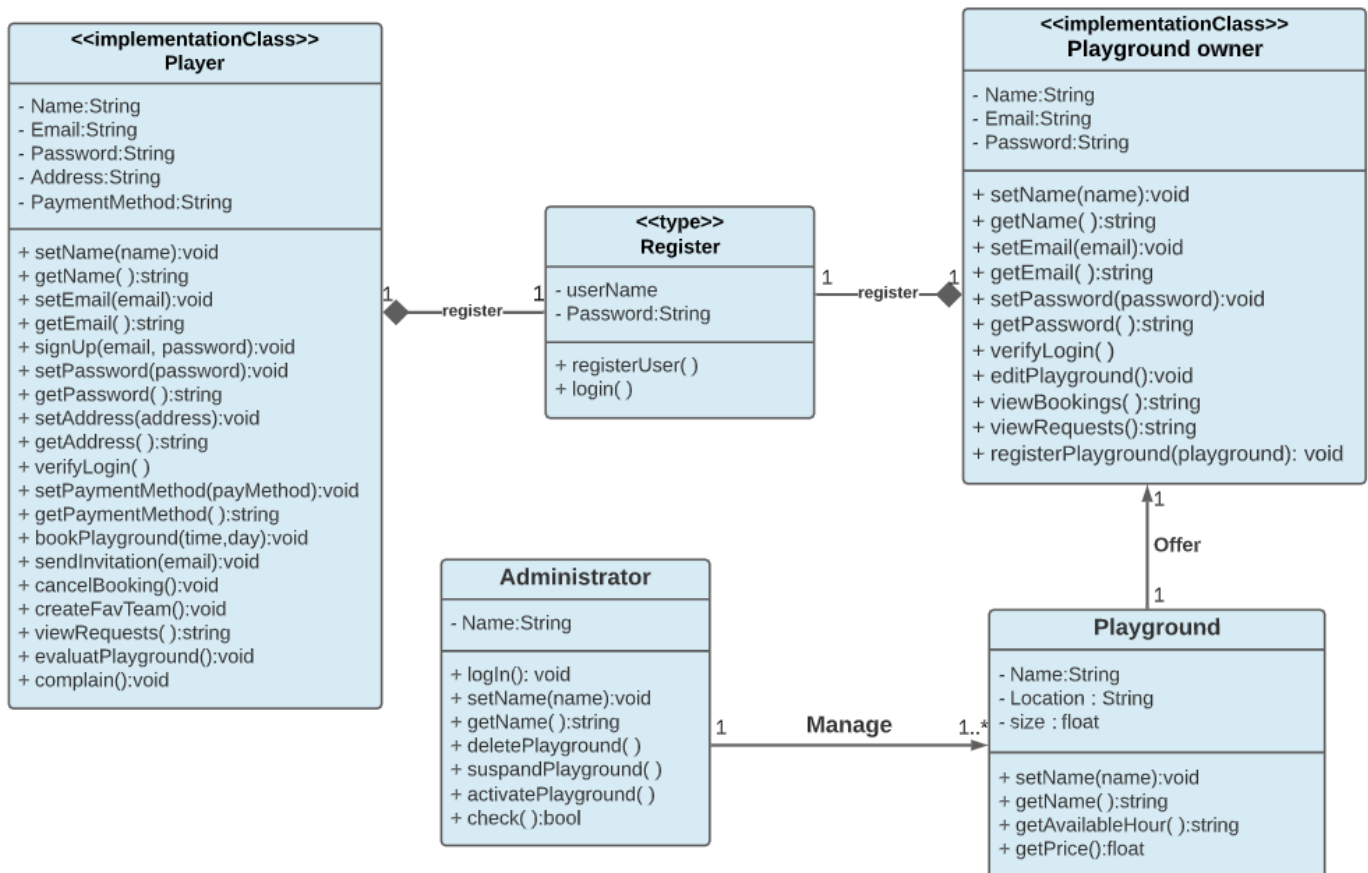- The Client.
- The Development Team.

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System Models

I. Class Diagram(s)

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II. Class Descriptions

Class ID	Class Name	Description & Responsibility
1.	Register	Register class is the class that makes a registration for the user of the application. it has the attributes: *userName* and *Password*. Responsible for register user and login.
2.	Player	Player class is a class that enables the client to book a playground , send invitations to others to play with , Cancel Booking , Create his favourite team, View his requests, Evaluate the playground he had experienced and Can complain about a playground.
3.	Playground Owner	Playground owner class is the class that enables the playground owner to edit his playground information, view his playground bookings and the requests to it, view all bookings of his playground, and he/she can register his playground into the application.
4.	Playground	Playground class is a class that enables the playground owner to register his playground and add his information like: *name, size,* and *location*. Responsible for creating the playground for the owner to display his playground for the clients to book.
5.	Administrator	Administrator Class is the class that enables the Administrator to manage the playground by: *deleting, suspending,* or *activating* it. and check if the playground information is correct or not.

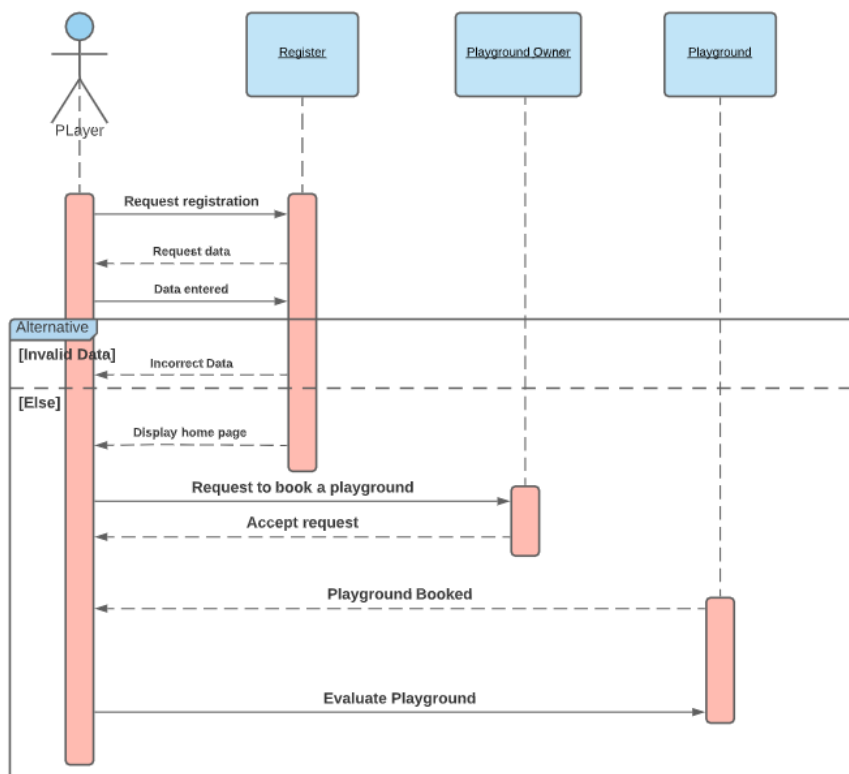**CU – FCAI – CS251 Introduction to Software Engineering – 2020 - Software Design Specifications**
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III.Sequence diagrams

- **sequence diagram for the booking process**

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- **sequence diagram for the cancellation process**

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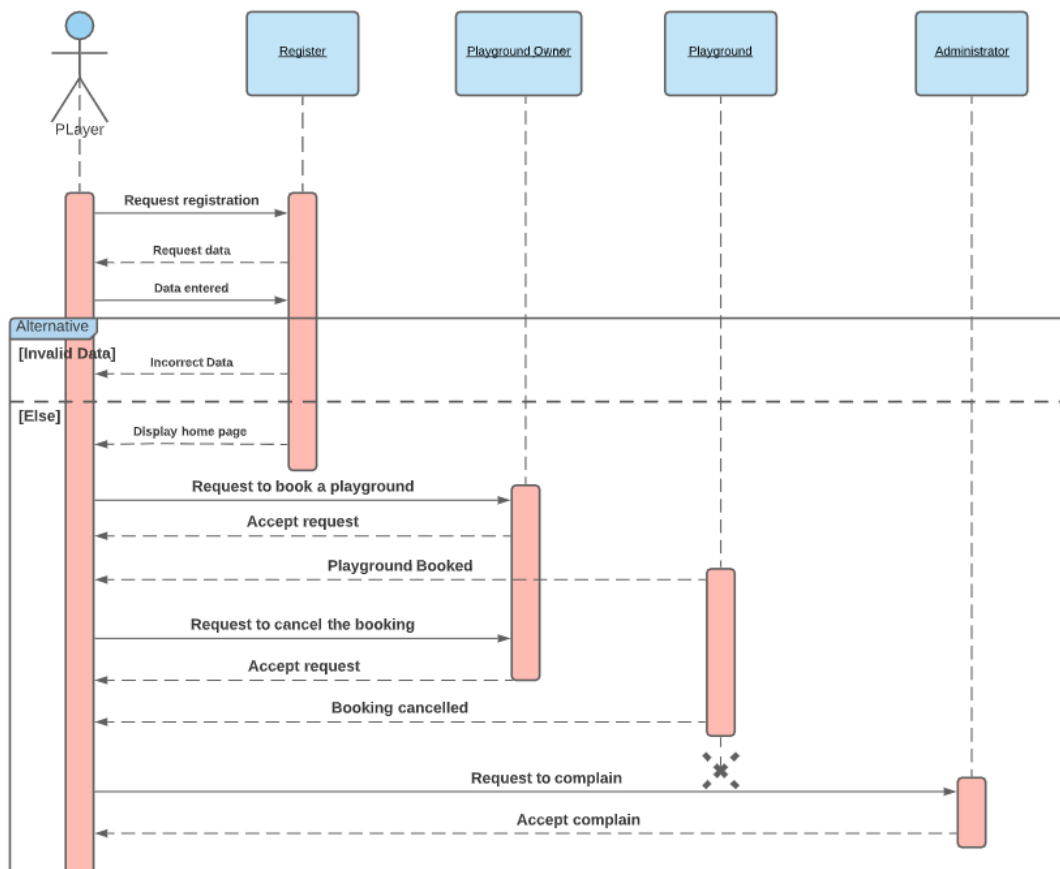
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- **sequence diagram for the registration of the playground**

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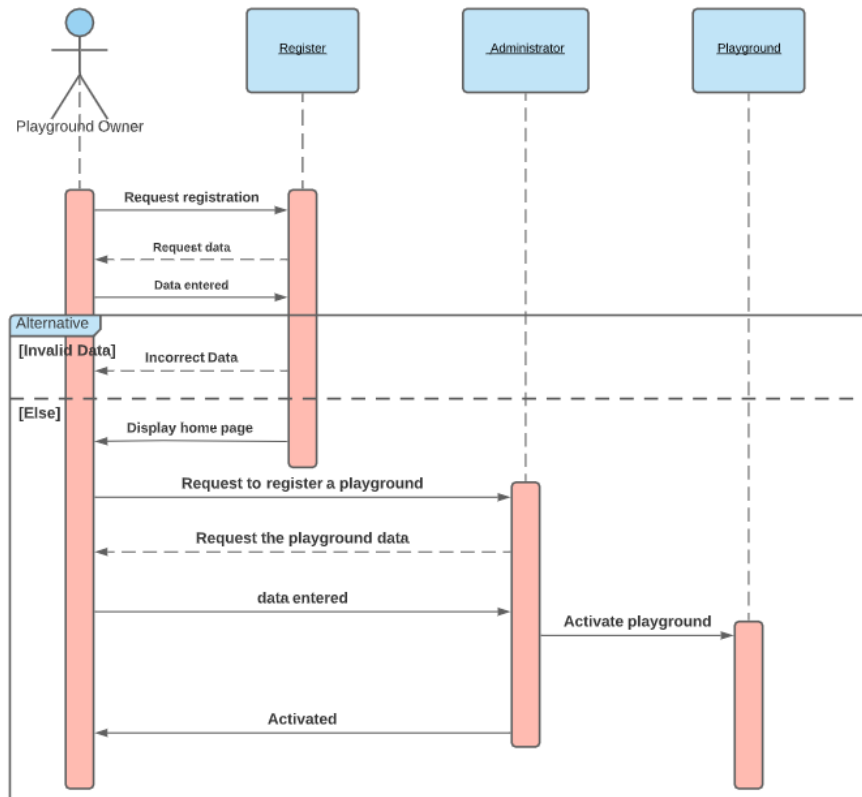
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- **sequence diagram for suspending and activating the playground**

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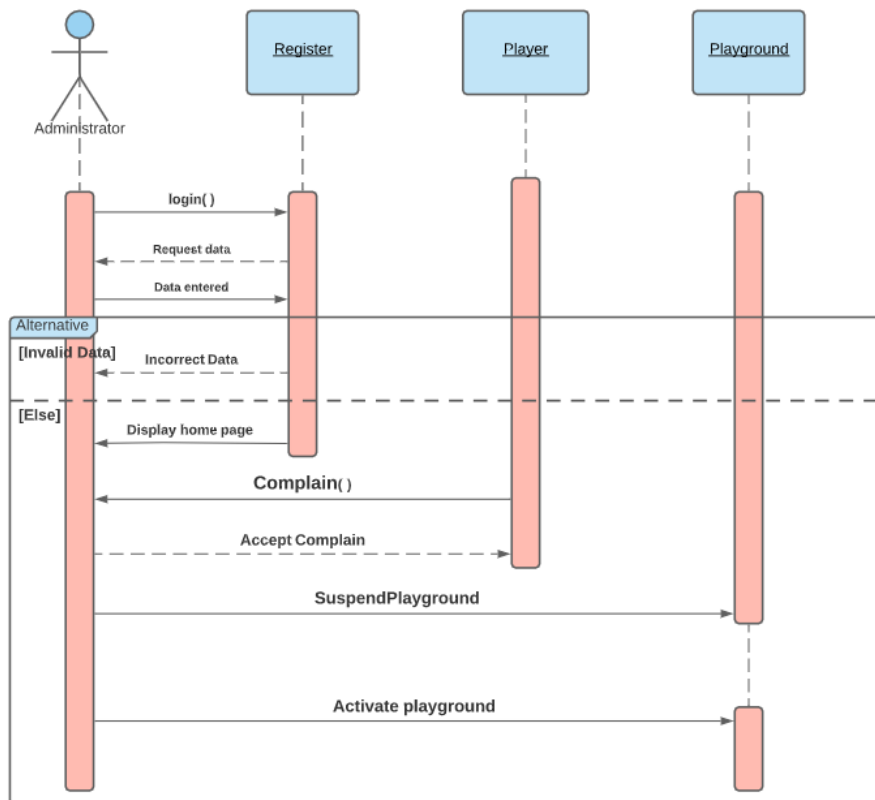
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Class - Sequence Usage Table

Sequence Diagram	Classes Used	All Methods Used
1. Book Playground	Class Player Class Register Class Playground Owner Class Playground	registerUser( ) login( ) bookPlayground(time,day) evaluatePlayground( )
2. Cancel Playground	Class Player Class Register Class playground Owner Class playground Class administrator	registerUser( ) login( ) bookPlayground(time,day) cancelBooking( ) complain( )
3. Register a playground	Class playground Owner Class Register Class Administrator Class Playground	registerUser( ) login( ) registerPlayground(playground) activatePlayground( )
4. Suspend & Activate Playground	Class Administrator Class Register Class Player Class Playground	login( ) complain( ) suspendPlayground( ) activatePlayground( )

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IV. State Diagram

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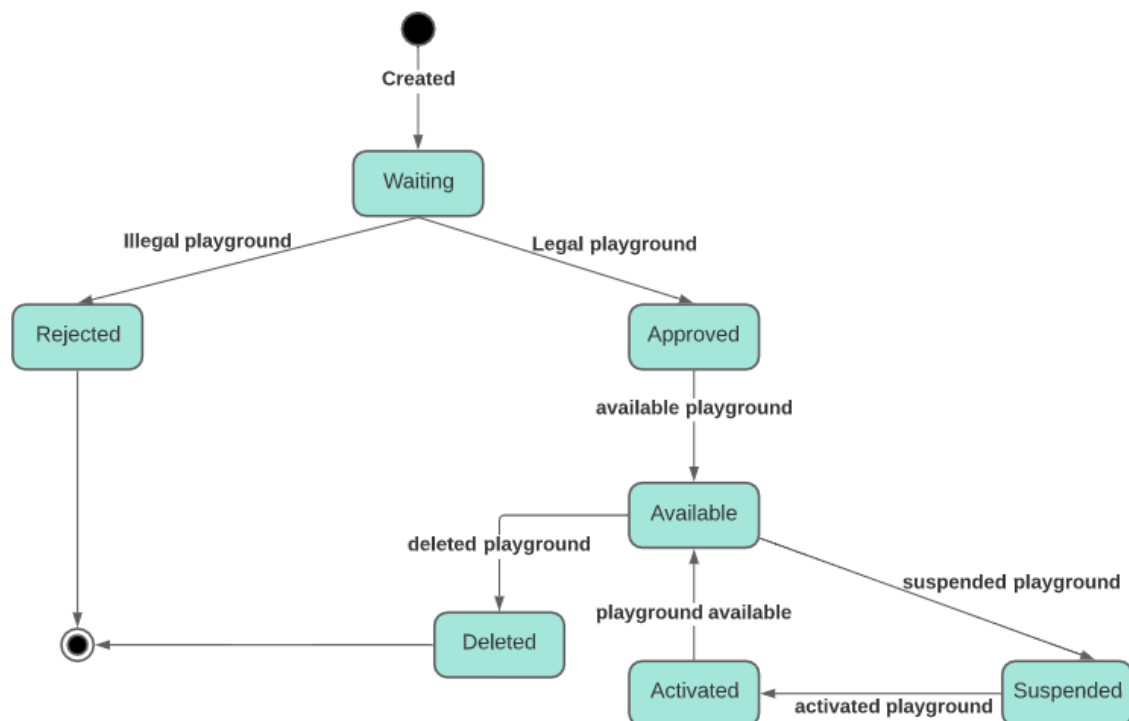
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Tools

- **lucidchart. (n.d.). https://lucid.app/persona/lucidchart#**

Ownership Report

Item	Owners
Fayza Ahmed Sayed Ahmed Abo Zaid	- Part of class diagram - part of class description - part of sequence diagram - part of Sequence Usage Table - part of State Diagram
Asmaa Refaat Abd Elmabood Habib	- Part of class diagram - part of class description - part of sequence diagram - part of Sequence Usage Table - part of State Diagram

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