Cairo University

Faculty of Computers and Artificial Intelligence

CS251

Software Engineering I

GOFO

Software Design Specifications

Version 1.0

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june & 2021

CS251: Phase 2 – <GOLEADOR >
Project: <GOFO>

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Team

ID	Name	Email	Mobile
20190507	Modaser Abdelhamied Raafat	modasergomis@gmail.com	01117386101
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Document Purpose and Audience

Purpose

This document is designed to be the reference for the developers who will work on the project to know the system components and functionalities. It can be considered as an overview for the project.

Audience

Audience of this document are the developers who will develop the system and the client who will review the project before starting the implementation. It is written in a simple way so that both can understand it.
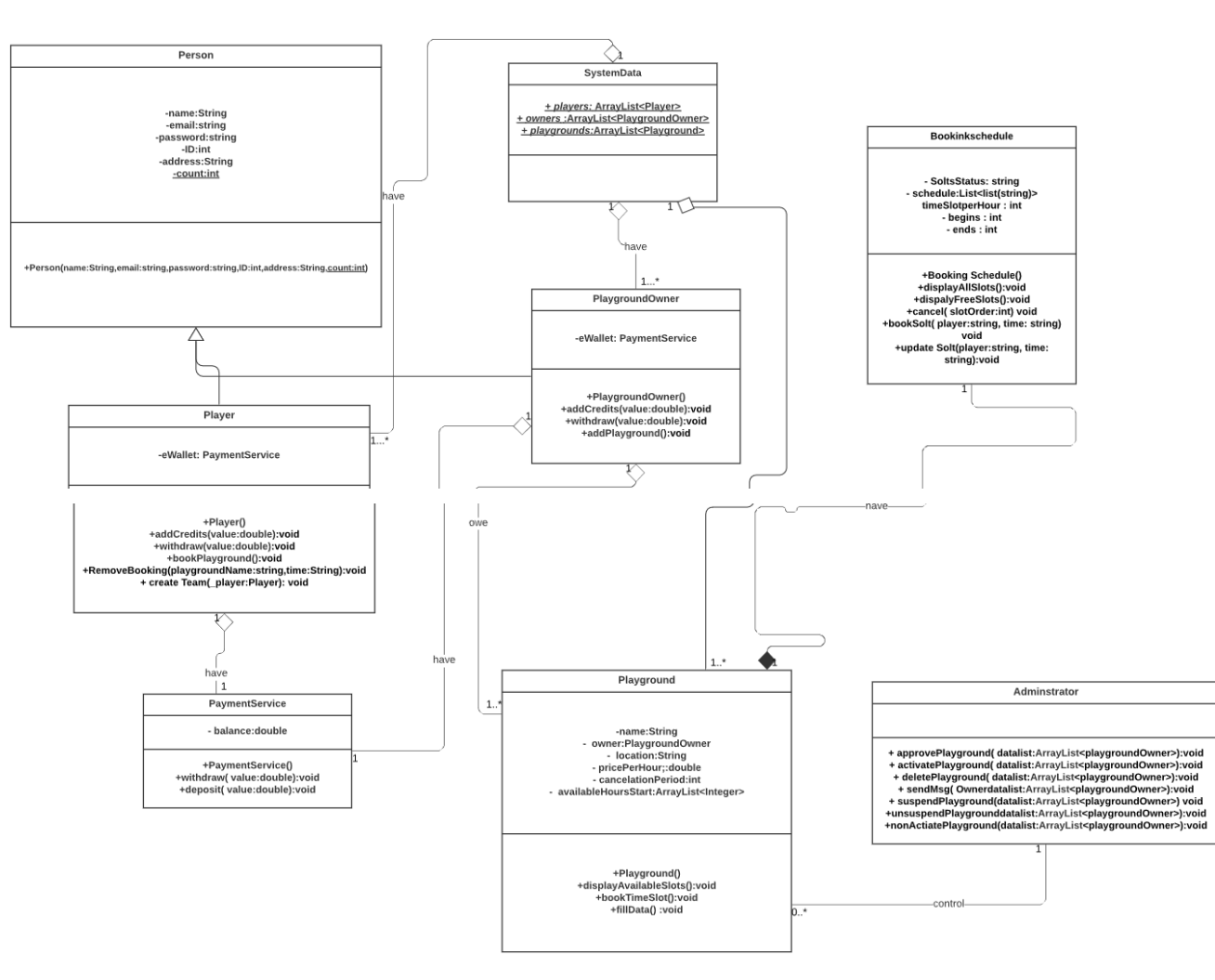
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System Models

I. Class Diagram(s)

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II. Class Descriptions

Class ID	Class Name	Description & Responsibility
1.	person	This class includes all the information like the name, password, ID, email, phone and location of any user registered in the system whether he/she is a player or a playground owner.
2.	Player	This class is for the user who can book a playground for a free time slot, join a team, invite his friends and pay for the booking. It has the attributes of booked playgrounds, team members and payment service.
3.	PlaygroundOwner	This class is for the type of user who can add a playground to the system and start accepting booking requests from players, update the free time slots and receive complaints about his playground. it holds a list of playgrounds owned by this owner, and his eWallet data.
4.	Administrator	This class is for the type of user who is responsible for managing playgrounds, receiving complaints from players and verifying users' data. It can also suspend or delete a playground.
5.	Playground	This class holds the data for a playground like its name, owner, location, price and cancellation period. This data should be filled by the playground owner and verified by an administrator.
6.	PaymentService	This class holds the data about the payment service that a user (player or playground owner) uses to deal with paying or receiving money through the system.
7.	BookingSchedule	This class is responsible for organizing and updating the bookings time slots for a certain playground. It includes each booking start and end.
8	systemData	

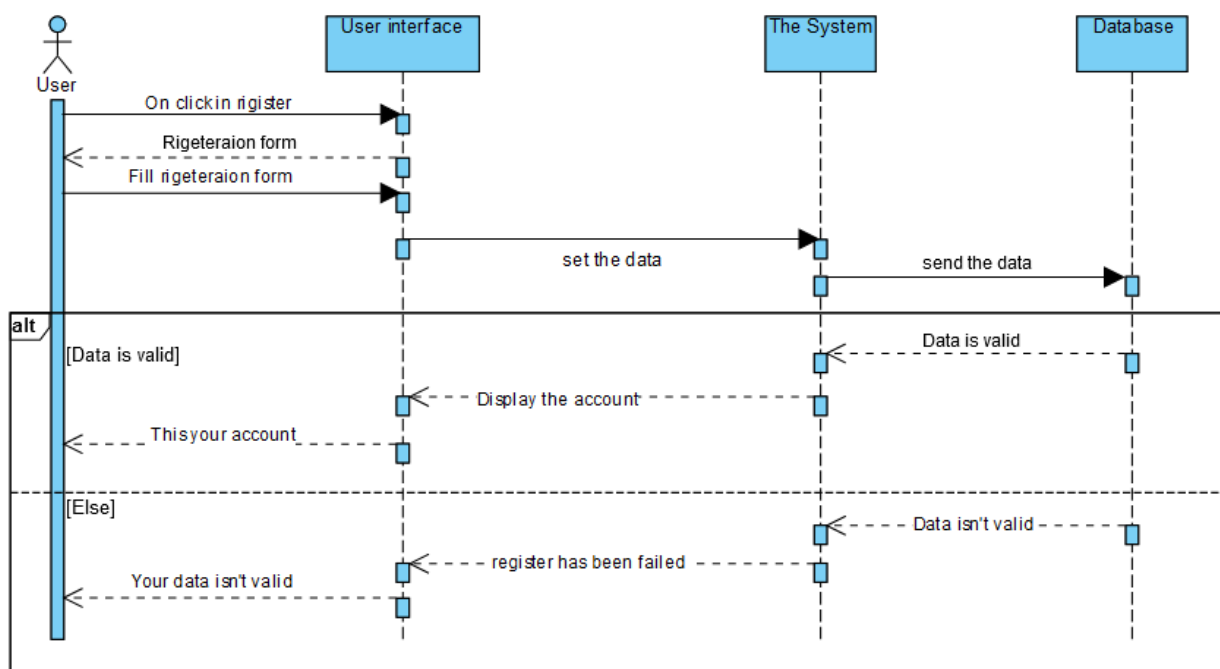CU – FCAI – CS251 Introduction to Software Engineering – 2020 - Software Design Specifications
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III. Sequence diagrams

Registration

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Add a playground

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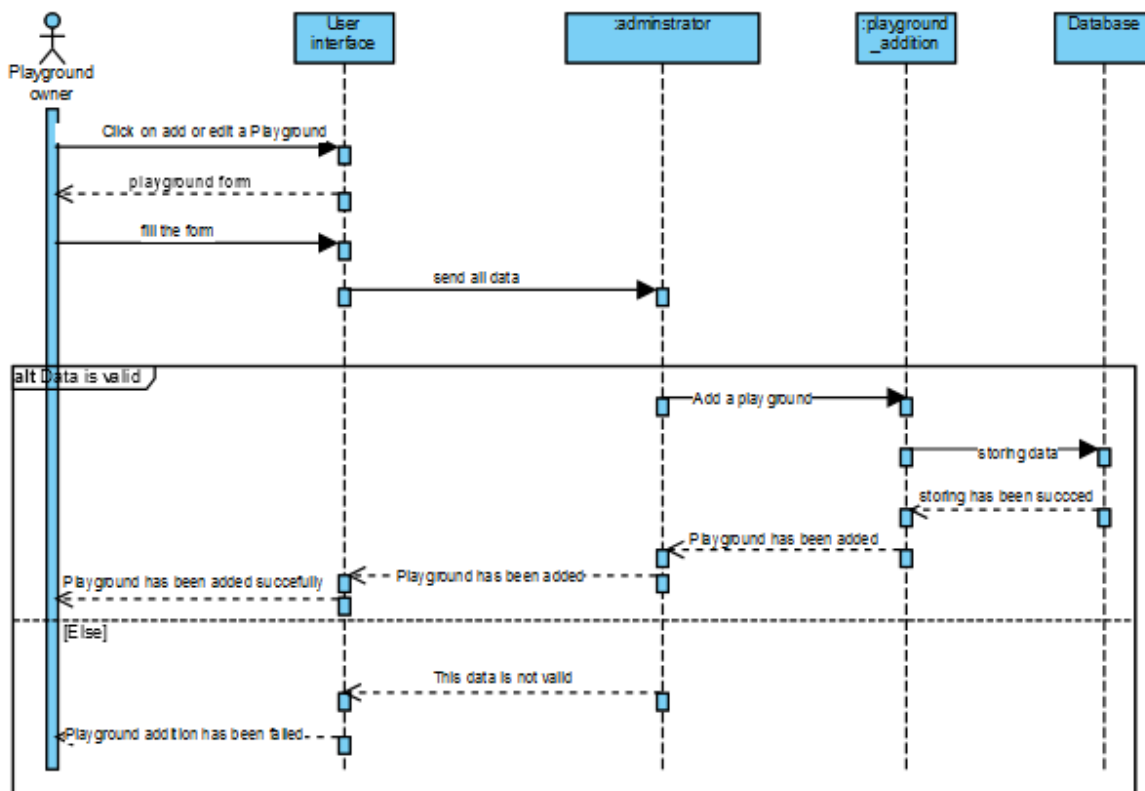
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Create Team

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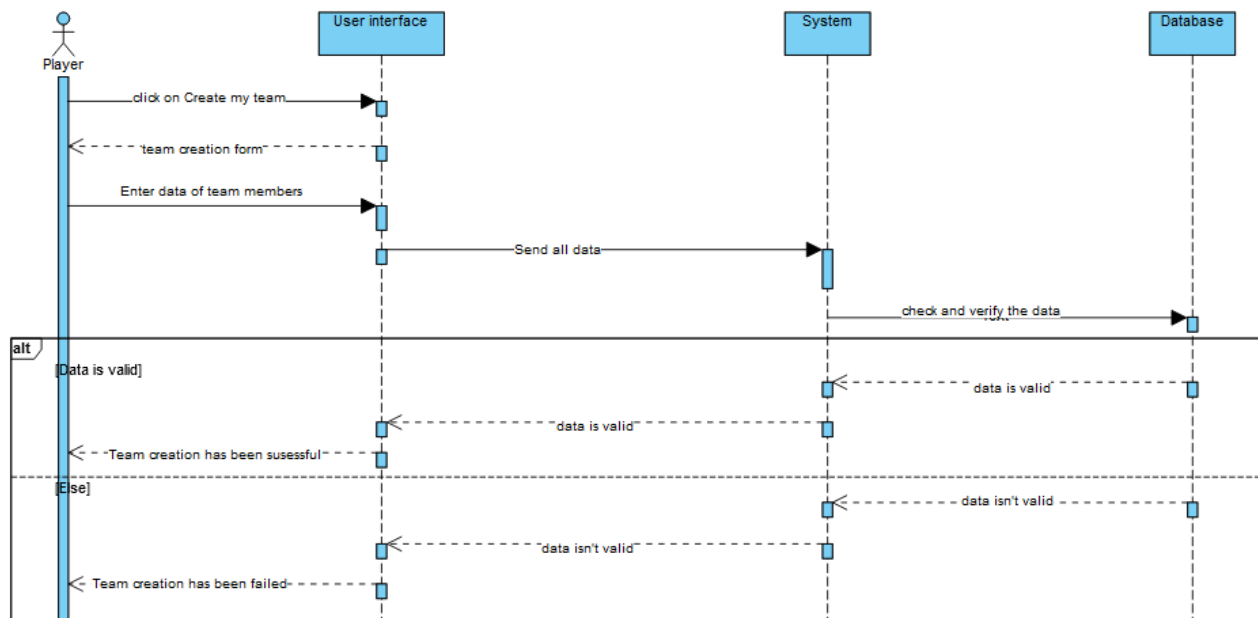
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Book a slot

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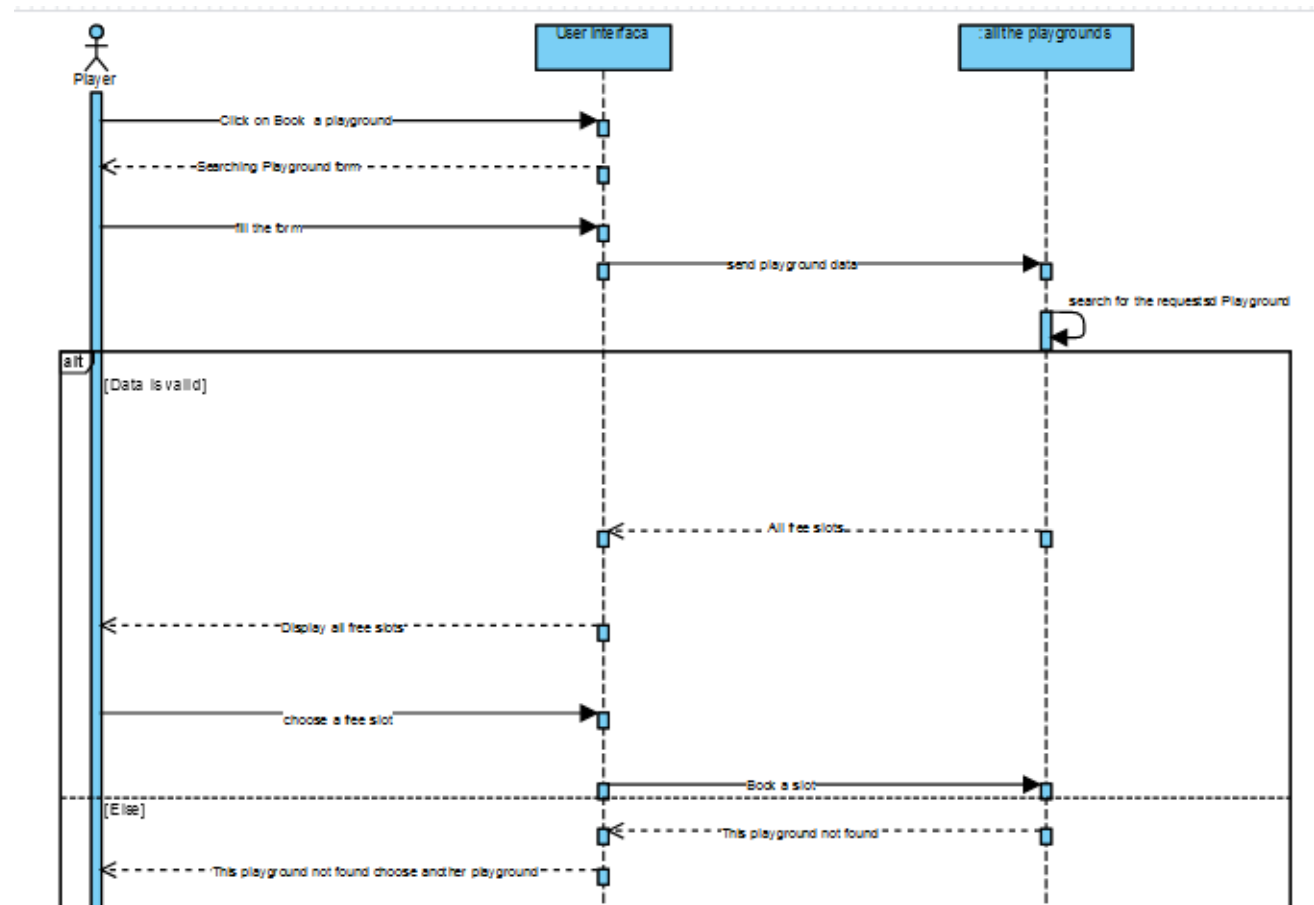
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Class - Sequence Usage Table

Sequence Diagram	Classes Used	All Methods Used
Registration	Class player Class Person class PlaygroundOwner	+Person(name:String,email:string,password:string,ID:int,address:String,count:int)
Add a playground	Class playgroundOwner Class playground Class administrator	+Playground() + approvePlayground(datalist:ArrayList<playgroundOwner>):void + activatePlayground(datalist:ArrayList<playgroundOwner>):void + sendMsg(Ownerdatalist:ArrayList<playgroundOwner>):void +addPlayground():void
Book a slot	Class playground Class playgroundOwner Class player Class BookingSchedule	+displayAvailableSlots():void +bookTimeSlot():void +fillData() :void +displayAllSlots():void +dispalyFreeSlots():void +cancel(slotOrder:int) void +bookSolt(player:string, time: string) void +bookPlayground():void
Create team	Class player	+ createTeam(_player:Player) : void

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- **State Diagram**
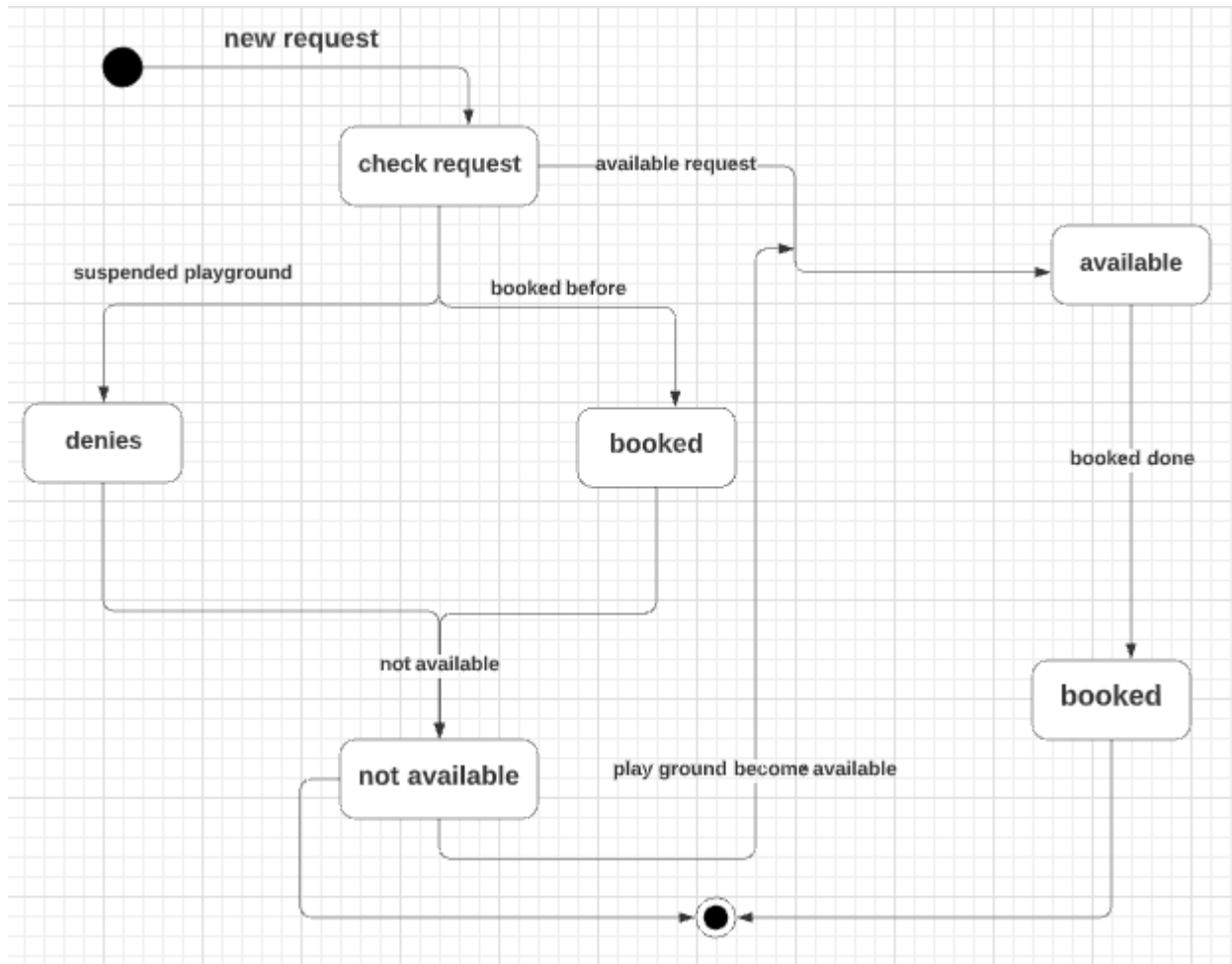
Tools

- **ArgoUML, Visual-Paradigm,lucid and moqups**

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Ownership Report

Item	Owners
Modaser Abdelhamied Raafat	Sequence diagram and Class - Sequence Usage Table,*Class diagram part of implementation*
Hossam mohamed hamdy	*Class description & responsibility Purpose and Audience and implementation*
Khaled Mohamed Abdelhamied	*state chart diagram*

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