CS251

Software Engineering I

GOFO APP

CS251: Phase 2 –
Project: Assignment-4

Software Design Specification

Contents

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Team

ID	Name	Email	Mobile
20190036	Ahmed shams ahmed omran	Shamsfcai98@gmail.com	01113503693
20190064	Ahmed Mohamed gabr	Ahmedgabr20n@gmail.com	01128162636
20190650	Youssef wahid Youssef	Youssef wahid56@gmail.com	01148238989

Document Purpose and Audience

Document Purpose:

This document is about a system or application that provide a serve this serve is about to make sure players get their booked playground in the specific time and to make it easy for them to book this app make sure them to get all information that they want such the nearest playground, available playgrounds in a specific time and much more options will be provided there.

Audience:

- • Playground owner
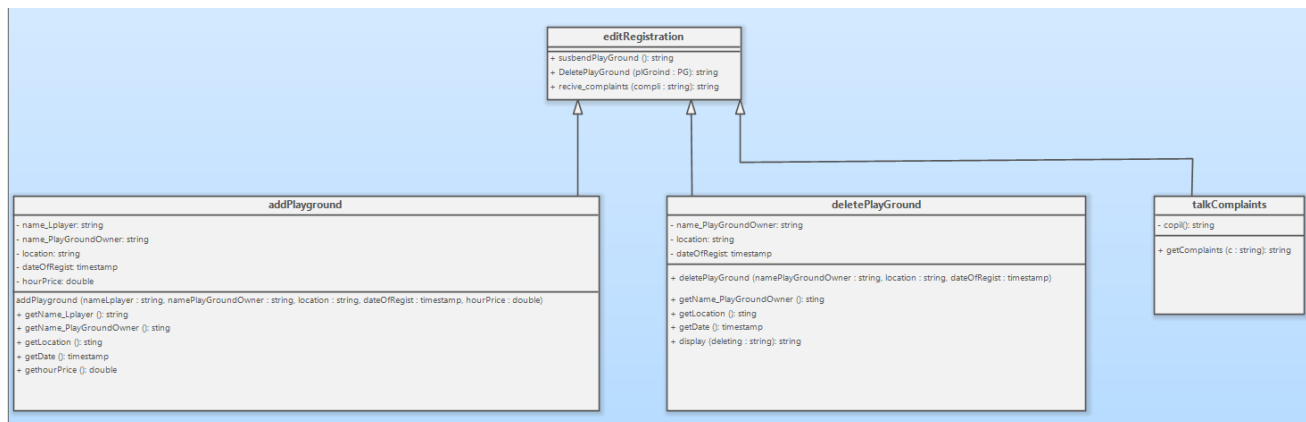
- • Administrator

- • Players

- • Co-workers

System Models
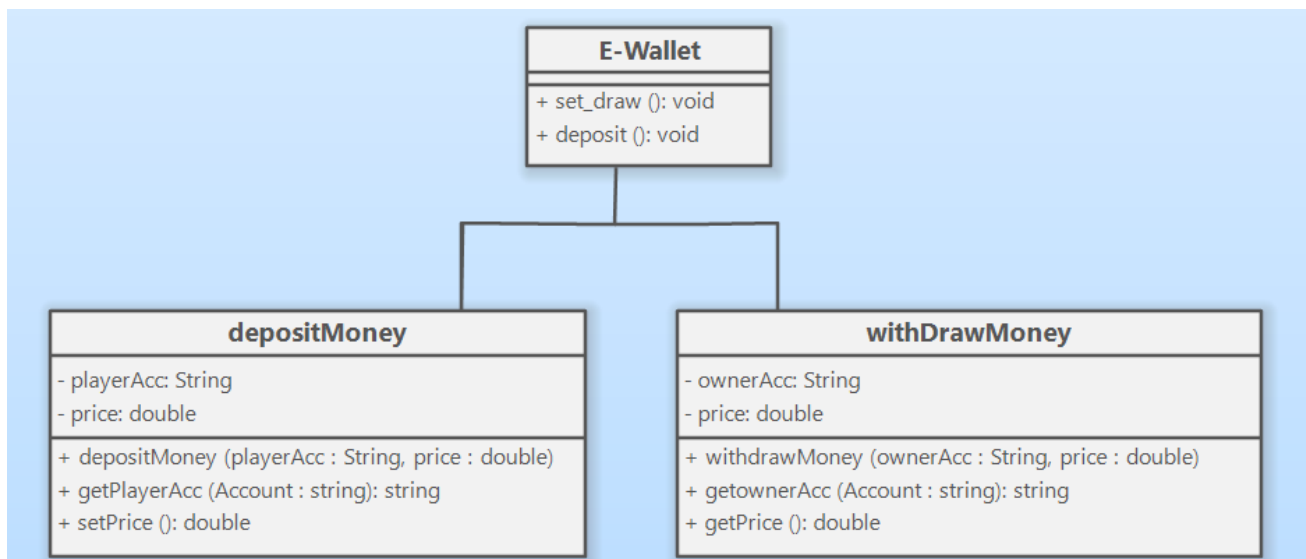
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Class Diagram(s)

- **Adminsrtutor:**

editRegistration
+ susbendPlayGround (): string
+ DeletePlayGround (plGroind : PG): string
+ recive_complaints (compli : string): string

addPlayground
- name_Lplayer: string
- name_PlayGroundOwner: string
- location: string
- dateOfRegist: timestamp
- hourPrice: double

addPlayground (nameLplayer : string, namePlayGroundOwner : string, location : string, dateOfRegist : timestamp, hourPrice : double)
+ getName_Lplayer (): string
+ getName_PlayGroundOwner (): sting
+ getLocation (): sting
+ getDate (): timestamp
+ gethourPrice (): double

deletePlayGround
- name_PlayGroundOwner: string
- location: string
- dateOfRegist: timestamp

+ deletePlayGround (namePlayGroundOwner : string, location : string, dateOfRegist : timestamp)
+ getName_PlayGroundOwner (): sting
+ getLocation (): sting
+ getDate (): timestamp
+ display (deleting : string): string

talkComplaints
- copil(): string

+ getComplaints (c : string): string

- **E-Wallet:**

E-Wallet
+ set_draw (): void
+ deposit (): void

depositMoney
- playerAcc: String
- price: double

+ depositMoney (playerAcc : String, price : double)
+ getPlayerAcc (Account : string): string
+ setPrice (): double

withDrawMoney
- ownerAcc: String
- price: double

+ withdrawMoney (ownerAcc : String, price : double)
+ getownerAcc (Account : string): string
+ getPrice (): double

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- **playGroundOwner:**

+playground owner
- Add Playground: String
- Grass Type: String
- Playground Area: Integer
- Crowd Space: Boolean
+ SetPlayground_Name (Name : String)
+ GetPlayground_Name (): String
+ SetGrass_Type (type : String)
+ GetGrass_Type (): String ()
+ SetPlayground_Area (width : int, Length : int)
+ GetPlayground_Area (): Integer ()
+ GetCrowd_Space (): Boolean

- **TeamLeader**

+Team leader
- Email: String
- Name: String
- Contact with playground owner
+ setEmail (e-mail : String)
+ getEmail (): string
+ setName (name : string)
+ getName (): string
+ Contact_playgroundOwner (): void

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- Player ,PlayGround

playground	player
+ Name: string	+ Name: String
+ ID: Integer	+ phone: Integer
+ location: string	+ email: String
+ PricePerHour: Integer	+ E-Account: E-wallet
	+ isSelect: Boolean
+ «getter» GetName (): string	+ «getter» GetEmail (): String
+ «getter» GetLocation (): string	+ «setter» SetEmail (email : String)
+ «getter» GetPricePerHour (): Integer	+ filter (place : String): void
+ isAvailable (): Boolean	+ invite (): void
	+ cancel (): void
	+ isPay (): Boolean
	+ view (): void
	+ filter (time : Integer): void
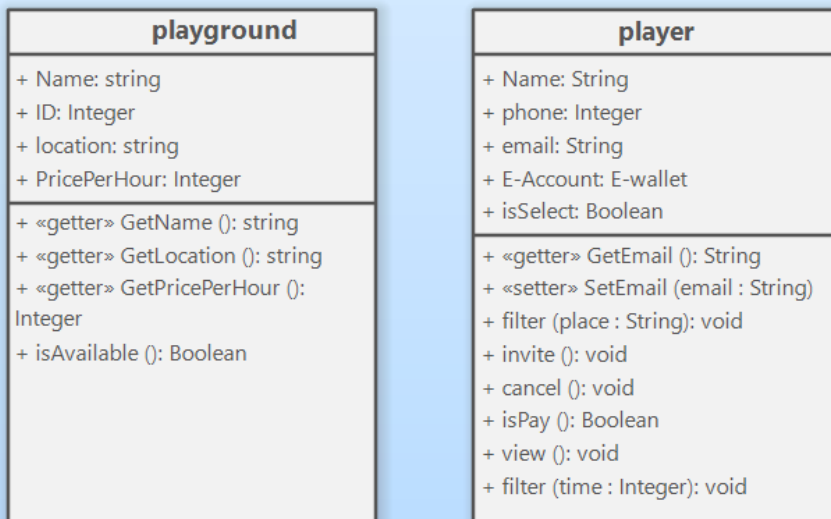
II. Class Descriptions

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Class ID	Class Name	Description & Responsibility
#1	**Adminstrutor**	**User(system/person) control whole the system and monitoring the activities of playground owners** •**Approve playground by checking the validity of the information entered by the owner. (manually done)** •**Suspend the playground by deactivating it and sending a notice to the owner.it not affect on the slots that already booking** •**Delete the playground from the system** •**Activate playground**
#2	E-Wallet	**responsible to connect to E-Wallet account of user and send requests to it to send and transfer money**

Class ID	Class Name	Description & Responsibility
#3	**PlayGround**	**class represent the playground owner in real world that is also treat as user but in role of playground owner and any playground owner must have at least one playground.** **This class can add new playgrounds to the system.** **It tells the players the properties of a playground (grass type ,playground area...etc).**

Class ID	Class Name	Description & Responsibility
#4	**teamLeader**	**This class represent a player as a team leader it has the same attributes of a player but it maintain some special attributes like (contact with playground owner) this class helps both of playground owner and players to manage their e-mails easily.**

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Class ID	Class Name	Description & Responsibility
#5	Playground	it is the main class that all application is about it ... • It is responsible to create playground with details represent as attributes i.e.) Name, ID, location,…etc. • Return every thing about this playground like i.e.) where it is playground, is it available or not….. etc. .
#6	Player	This class player represent the main user for this application so he has a lot of powers he could use in our application i.e.) book , create a team , cancel the registration etc. • Register: anyone can register to the system but with specific role and the role here is selected as "Player" with use a validation in password and e-mail plus recognize its default location • View: it shows list of available playgrounds that is nearest to him when he enter his location or if he enter the time that he want to reserve on it. • Create a team by registering their emails and names but all the team member should have an email on the application • Pay by his e-wallet by inter his account and his bassword. • Cancel booking and get refunded if within cancellation period

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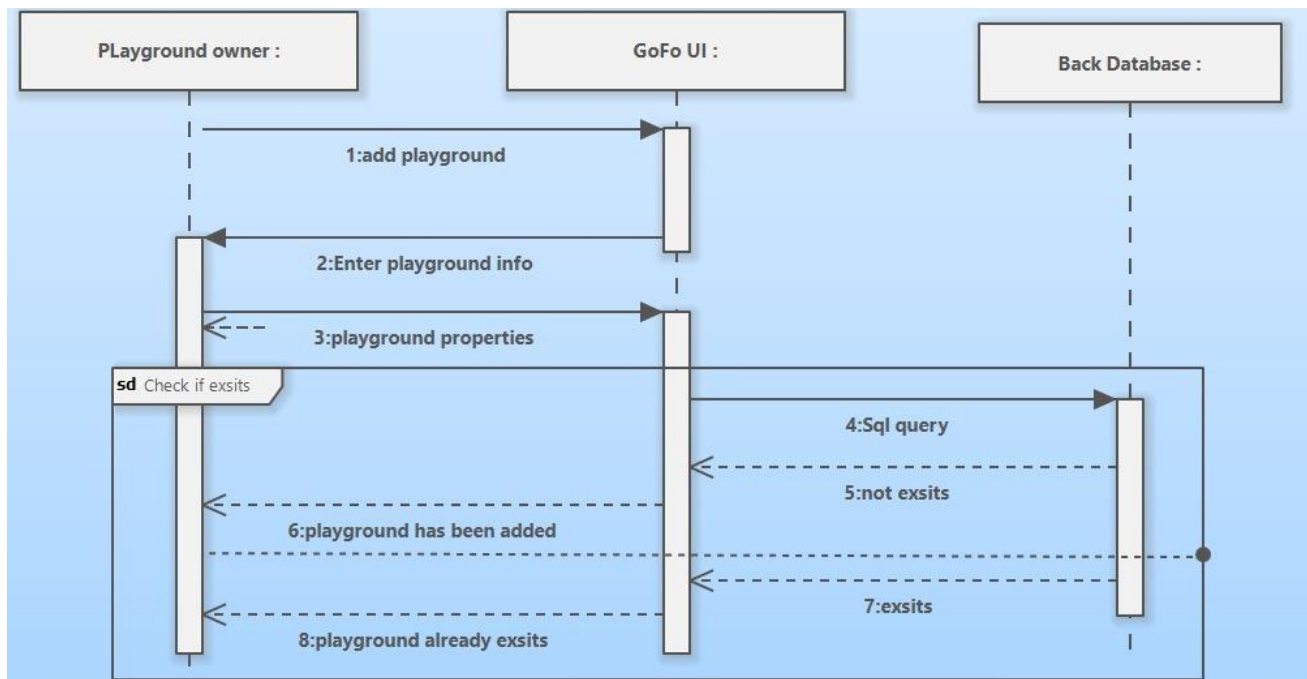## III. Sequence diagrams

- **Adminstrutor:**
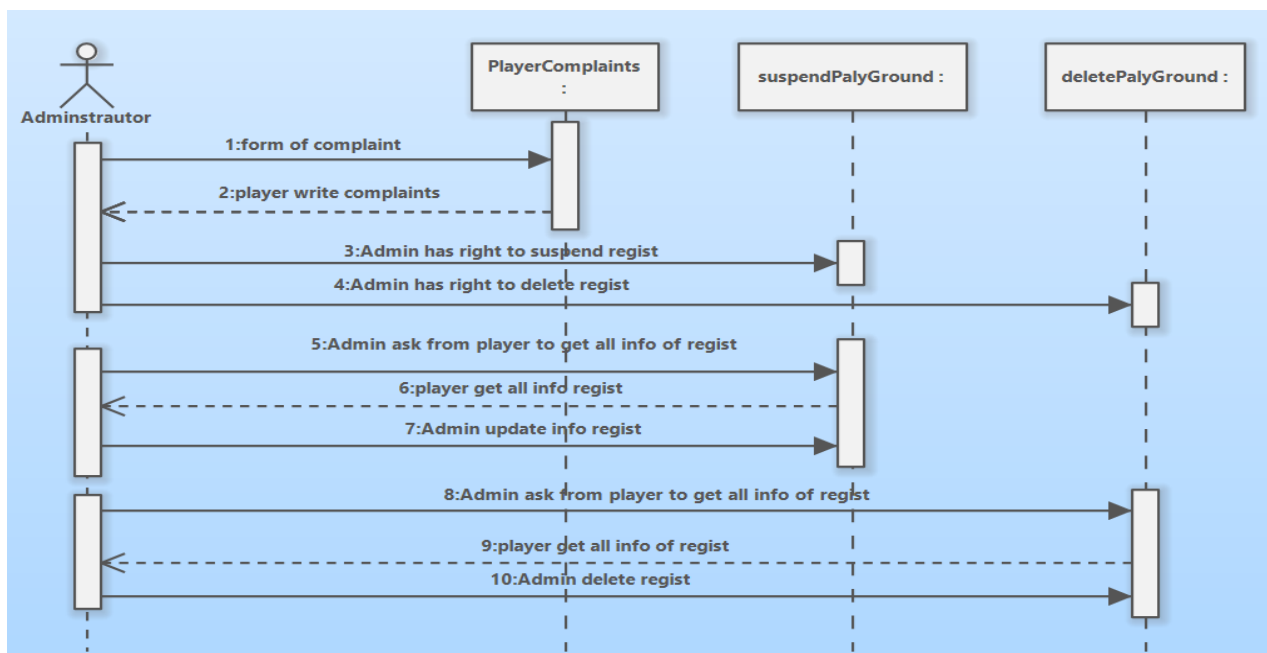
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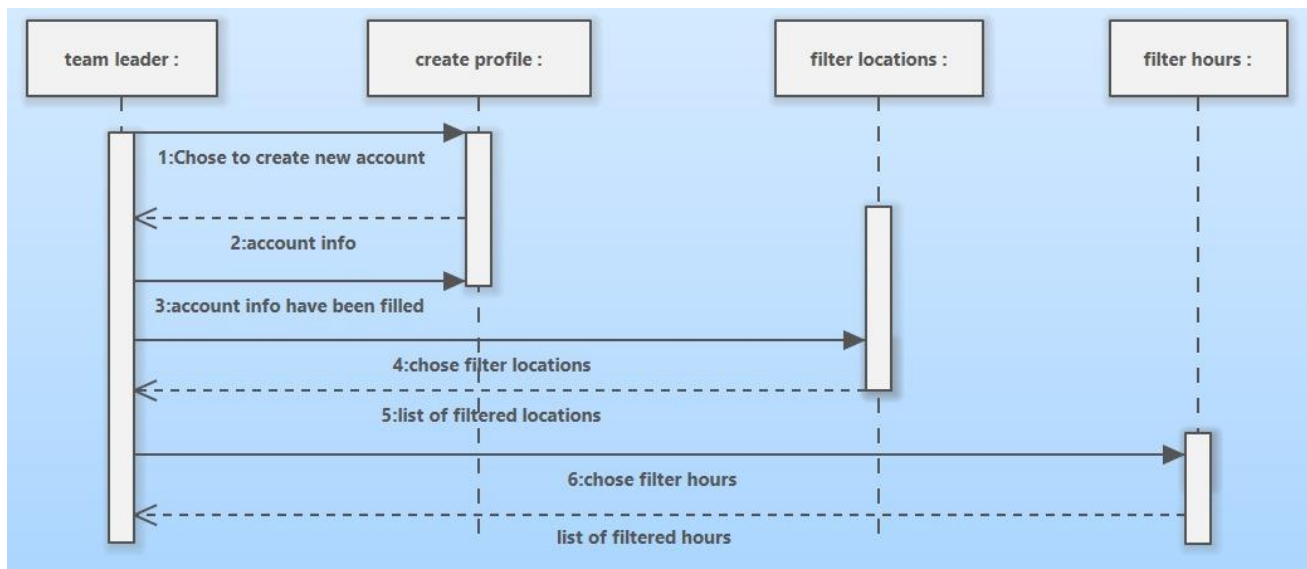# Software Design Specification

- **E-Wallet:**
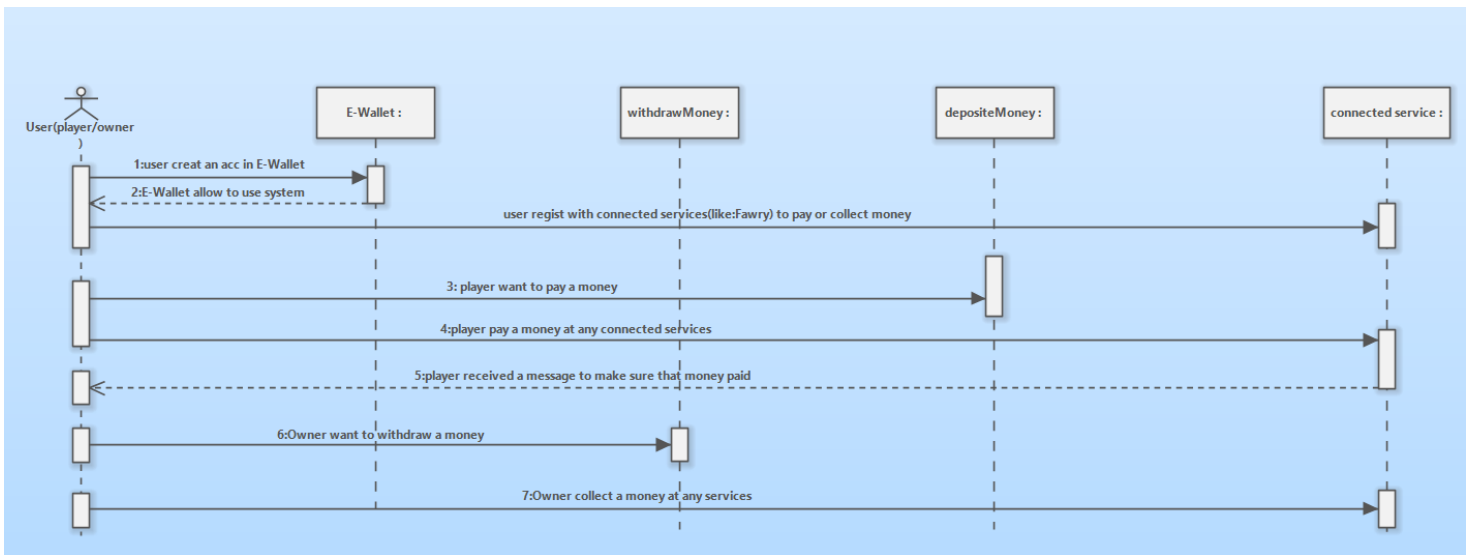
- **playgroundOwner:**

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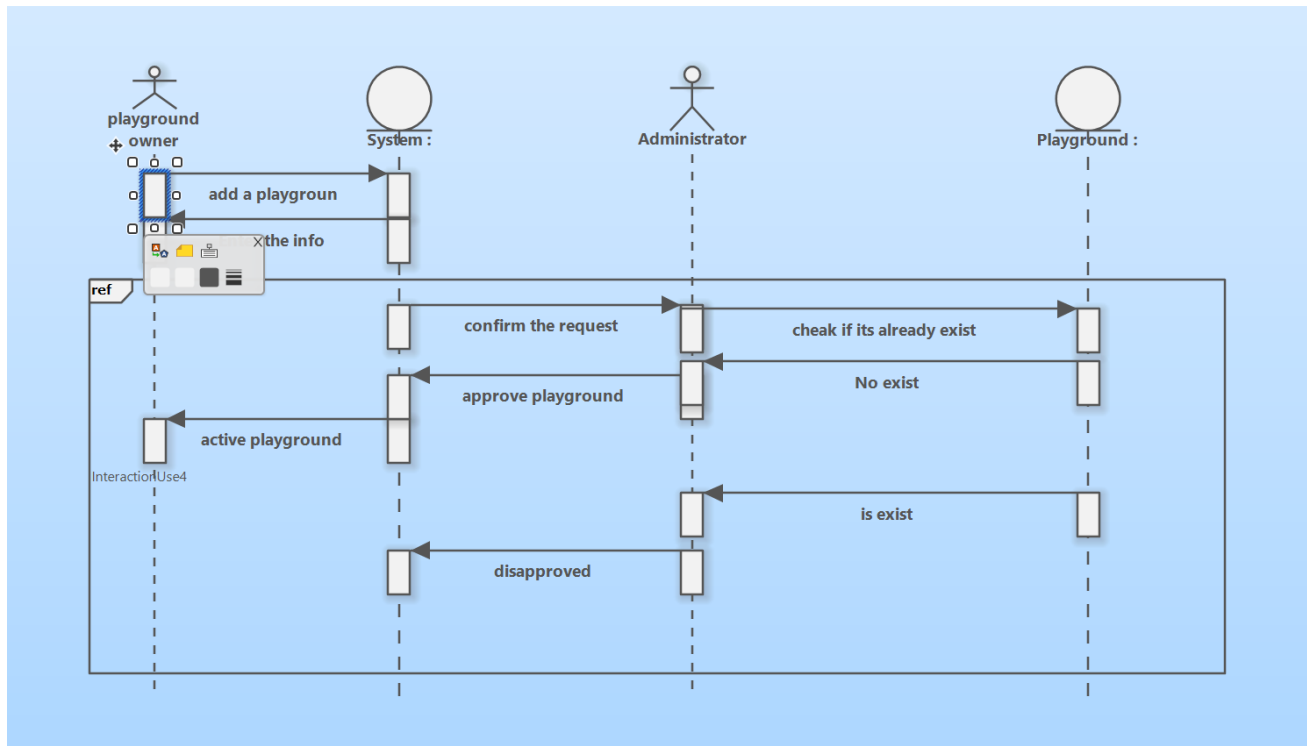## Project: Assignment-4

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- **TeamLeader:**

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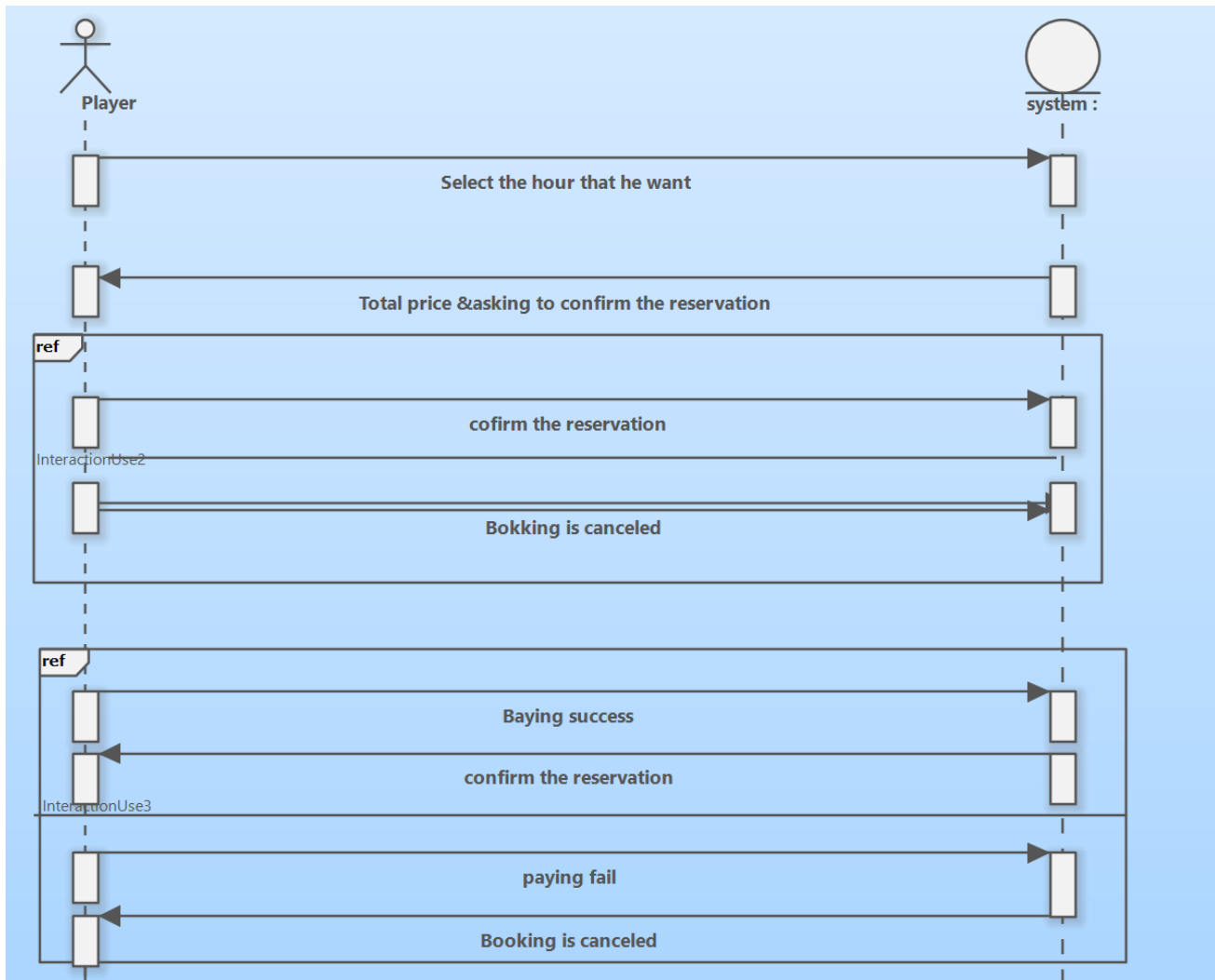## Project: Assignment-4

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- **Playground:**

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- **Player:**

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Class - Sequence Usage Table

Sequence Diagram	Classes Used	All Methods Used
#1 Adminstrutor	Class editRegist Class addPlayGround Class deletePlayGround Class talkComplaints	suspendPlayGround() deletePlayGround() receive_complaints() getName_Lplayer() getLocation() getDate() gethourPrice() getName_playGroundOwner() display()
#2 E-Wallet	Class depositeMoney Class withDrawMoney	getplayerAcc() setPrice() getOwnerAcc()

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Sequence Diagram	Class Used	All Method Used
Playground Owner	Playground owner GoFo	Add play ground () Check if exists()
Team leader	Team leader Gofo	Create account() Location filter() Hours filter()

Sequence Diagram	Classes Used	All Methods Used
1. playground	Class playgroundOwner Class Playground	setAvailableHour():to set when the playground will be available ….. setGlayGroundName():to get to the playground an name setplayground_location():to set where the playgroung is setPrice() : to set how much it will cost setplayGroundName(): to insert the playground into the system

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Sequence Diagram	Classes Used	All Methods Used
1. player	Class player Class Playground	getAvailableHour():to get when the playground will be available ….. getGlayGroundName():to get to the playground an name getplayground_location():to get where the playgroung is getPrice() : to set how much it will cost setPass(): let the player inter the password setMoney(): let the player to pay setAccountID(): let him enter his account

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• State Diagram:

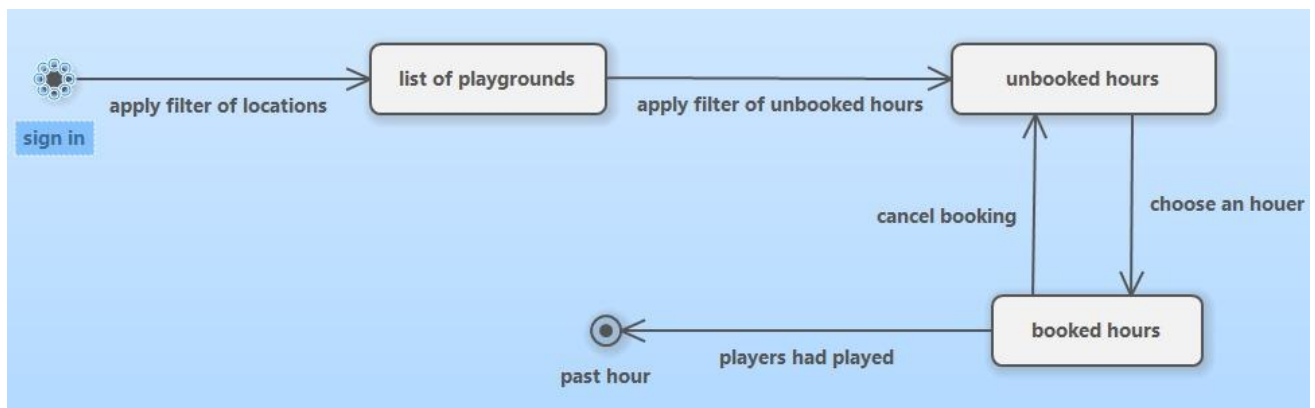### • Adminstrutor:
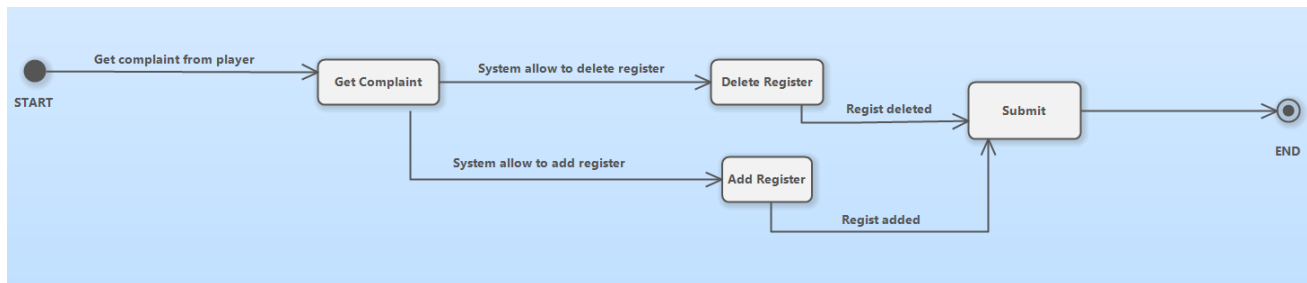
• E-Wallet:
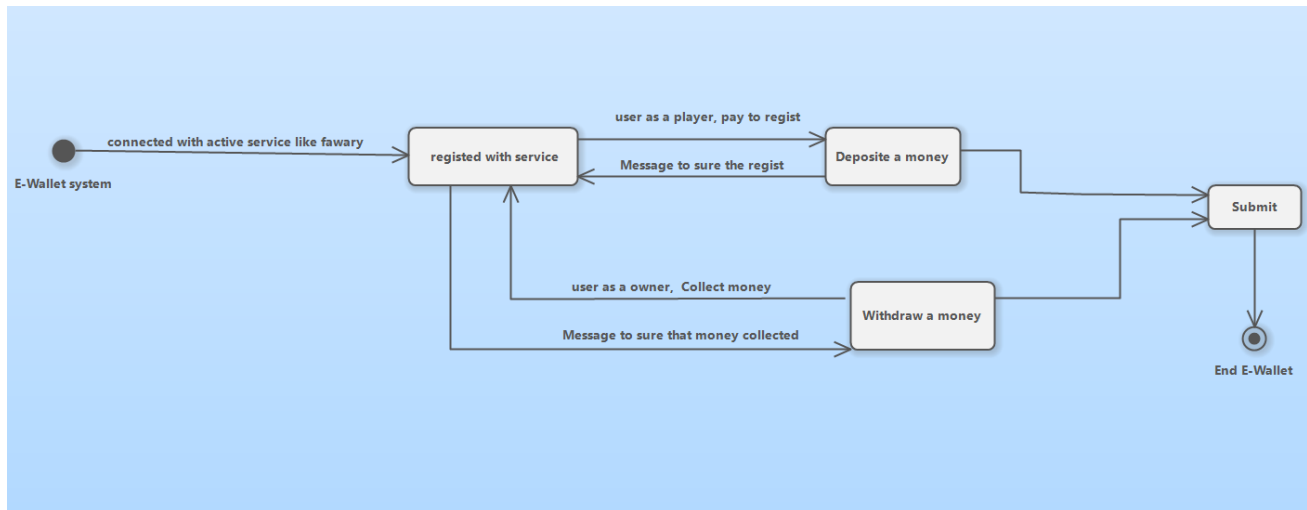
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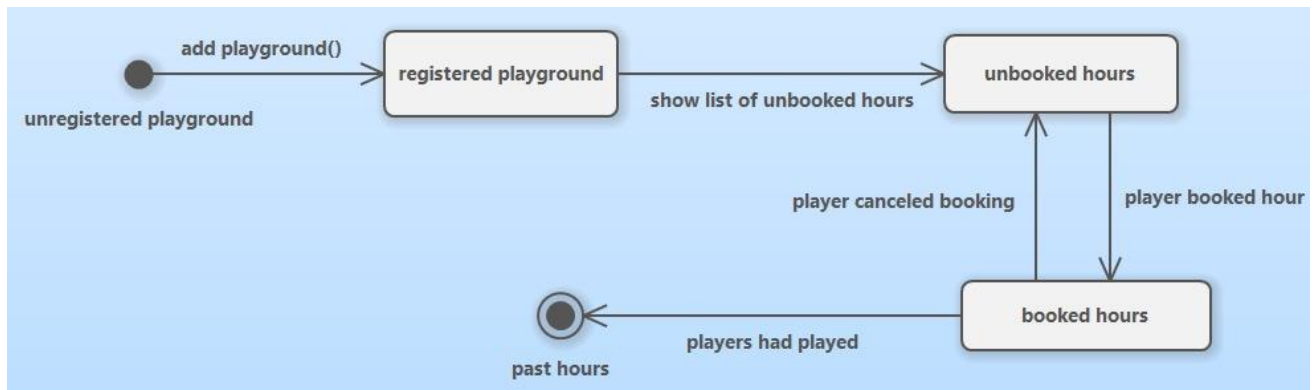
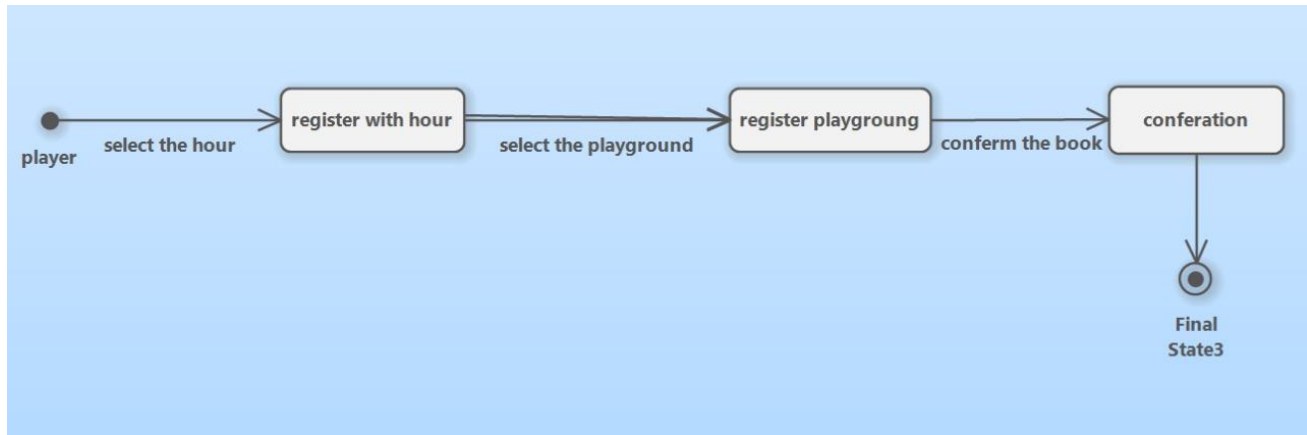## Software Design Specification
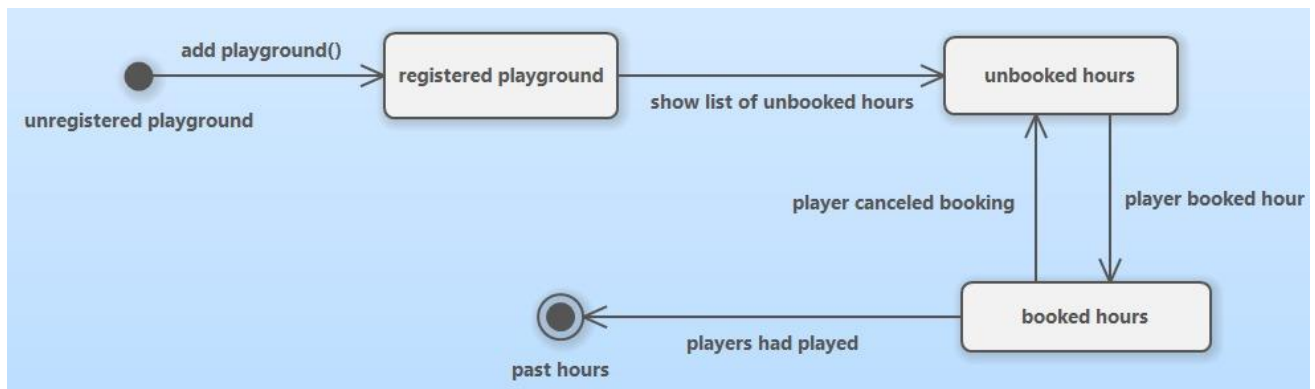
- **TeamLeader:**

- **PlaygroundOwner:**

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- **Player:**

- **PlayGround:**

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Tools

We are used mix of offlines and onlines tools to implement the seqs diagrams and class diagram like:

- https://moqups.com/
- Software Ideas modeler for window

Ownership Report

Item	Owners
Ahmed shams ahmed omran	**Part of class diagram and sequence in** • **Admonstitor actor** • **E-Wallet actor**
Ahmed Mohamed gabr	**Part of class diagram and sequence in** • **playground owner actor** • **Team Leader**
Youssef wahid youssef	***Part of class diagram and sequence in*** • **Player** • **playground**