Faculty of computers and artificial intelligence
Cairo university

Introduction to software engineering course

CS251

HOMEWORK 4 (GOFO PROJECT)

GOFO

Software Requirements Specifications

Team Names and Emails and Phone of Team Leader

28 May 2021

Team:

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Document Purpose and Audience:

This Software Design Specification document shows the design of the booking system of GOFO project in detail. This document will offer the software engineers a framework through providing general designs , sub systems and interfaces. This will happen through viewing the class diagrams , sequence diagrams and state diagrams we will make

The intended audience will be :

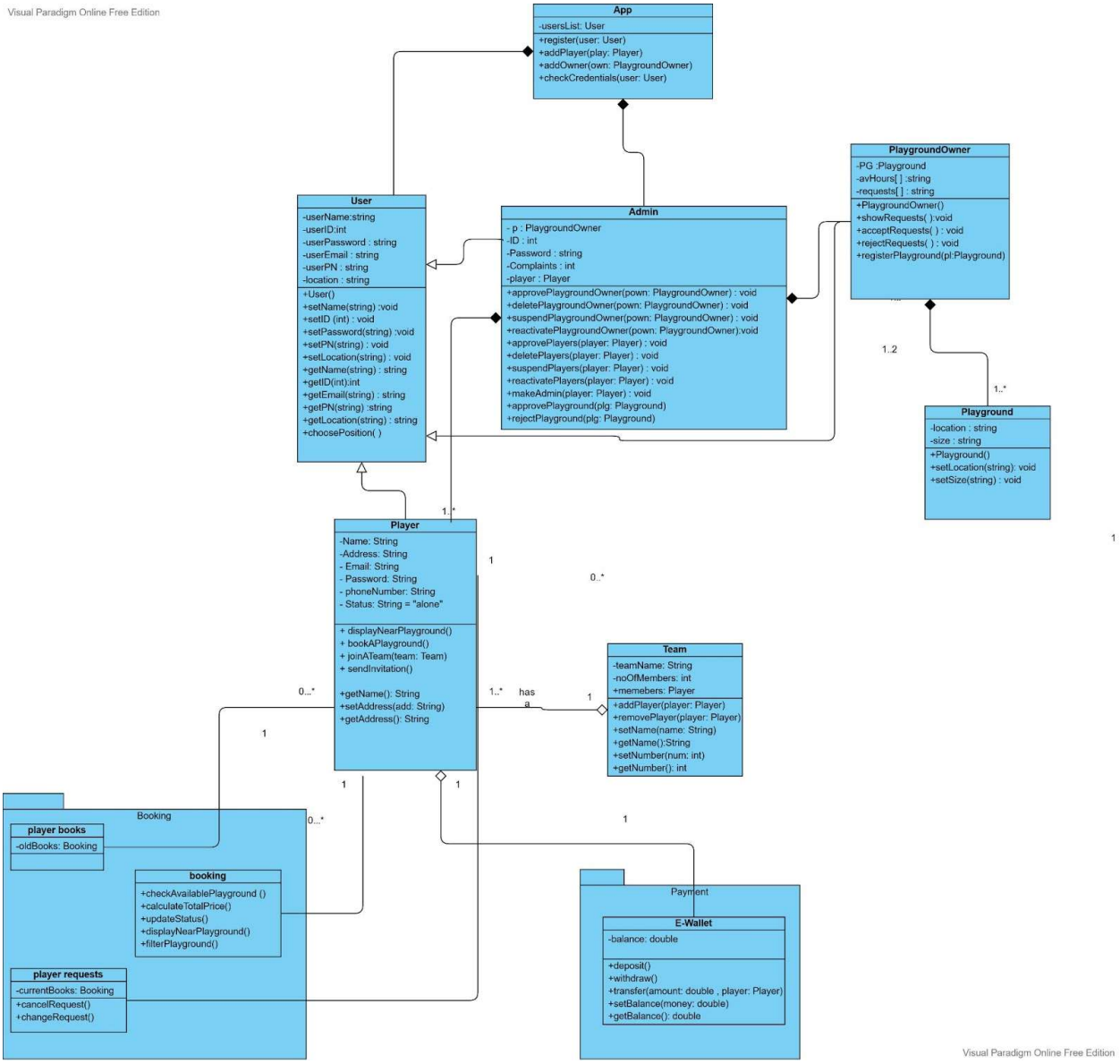
1- The stakeholders

2-Software Development Team

3- Our Actors : Administrator , Player and Playground Owner

System Models:

I-Class Diagram

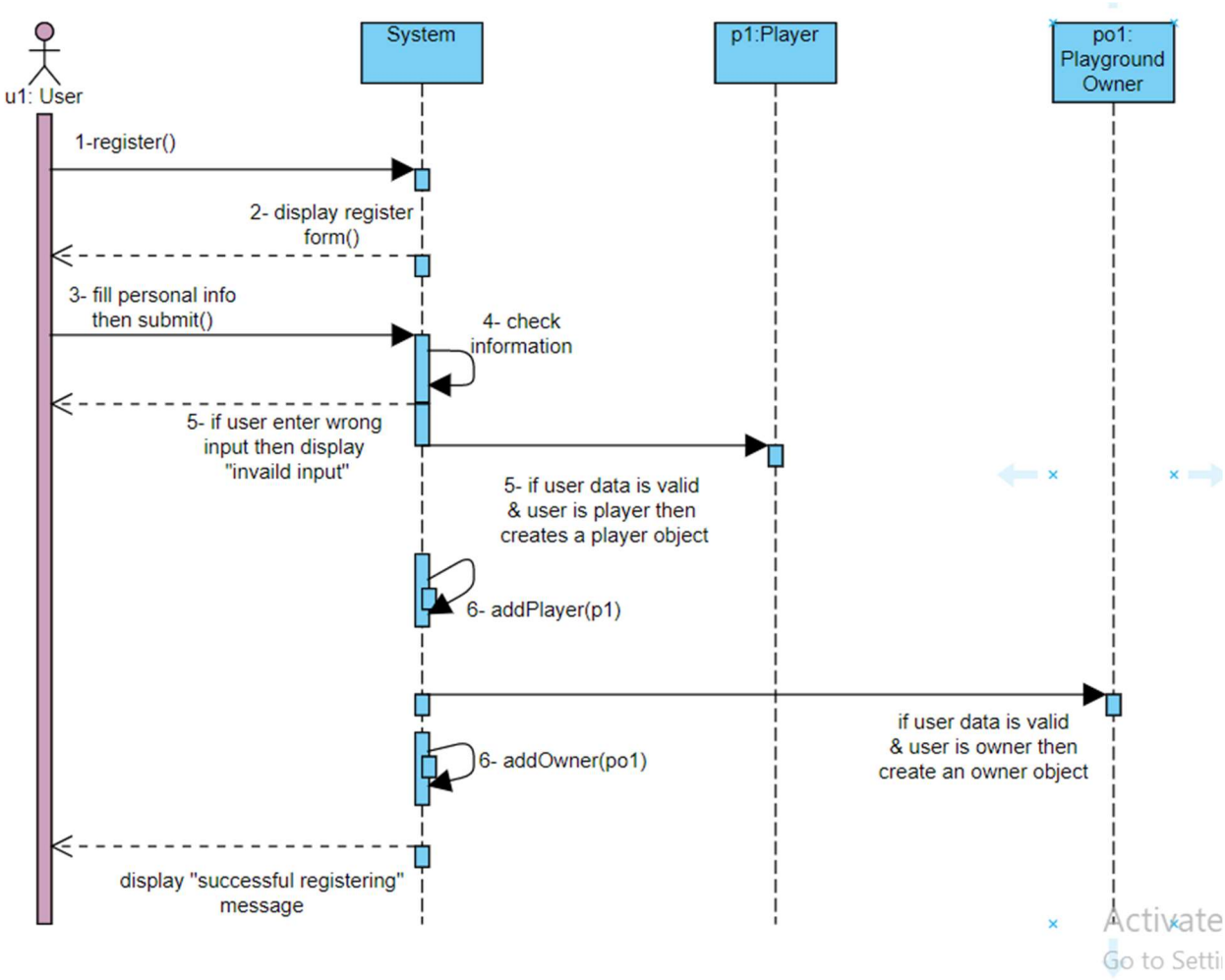


II. Class Descriptions

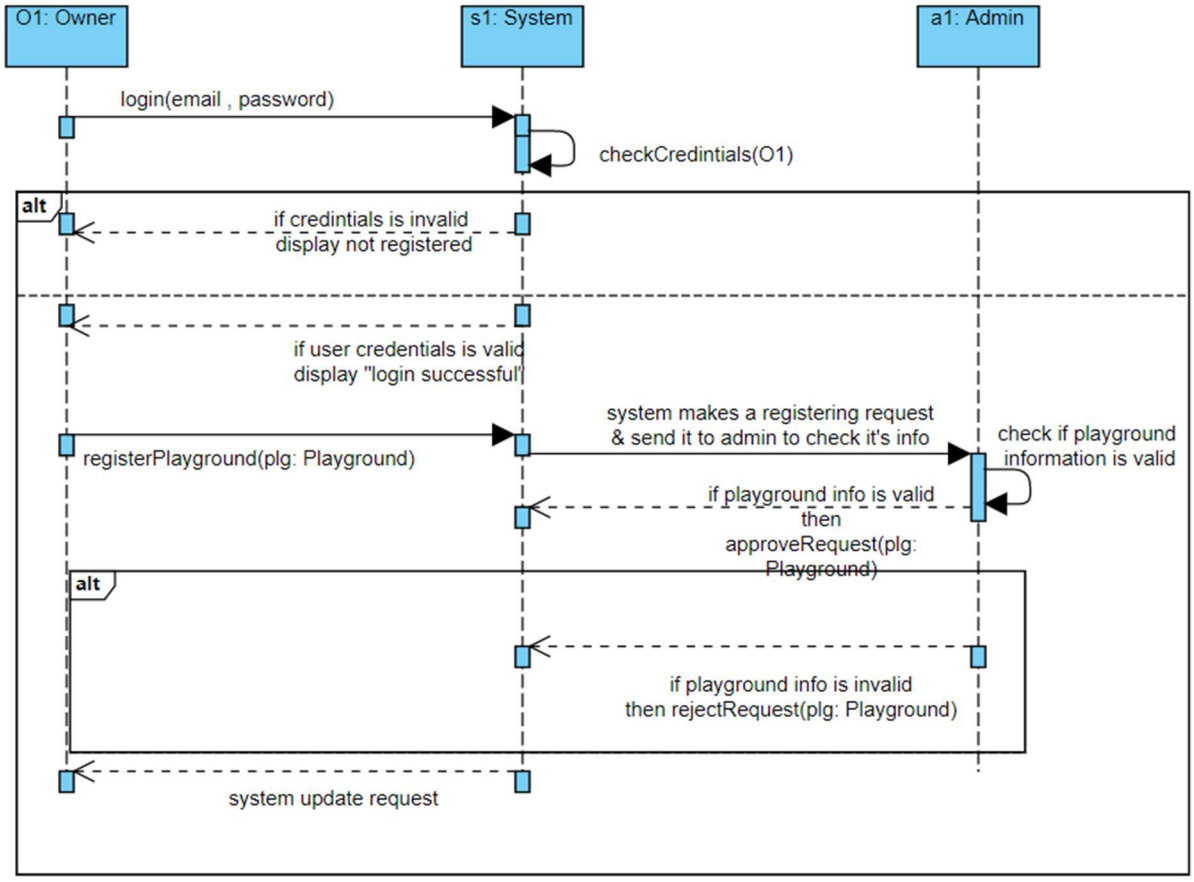
Class ID	Class Name	Description & Responsibility
1	System	This class is about the system • register • add player • add owner
2.	Admin	This class is about the admin and what we can ask of him and what he can do regarding the other classes , this class has an object of the Playgroundowner and user classes • Approve playground owners or players • Suspend playground owners or players • Delete playground owners or players • Reactivate playground owners or players • Maker a user an admin
3.	User	This class is about the user before he decides if he is a player or playground owner • Sets a name , id , password, email , PN and location • Gets name , id ,email , PN and location
4	Player	This class is about the user after he decided that he is a player • Join a team • Book a playground • Look at nearby playgrounds • Send an invitation
5	Playground Owner	This class is about the user after he decided that he is a playground owner • Show requests • Accept requests • Reject requests
6	Playground	This class is about playground owner after he has been approved by the admin and has a playground • sets location and size
7	Team	This class is consisted of a number of player at most 18 players • set name and number • get name and number • add player • remove player
8	E-wallet	This class is about the way the players pay for the booking of playground and all players and playground owners have different e-wallet • set balance • get balance • deposit • withdraw • transfer
9	Booking	This class is about the booking process that the player goes through • check available playground • calculate total price • update status • display near playgrounds • filter playgrounds

III. Sequence diagrams

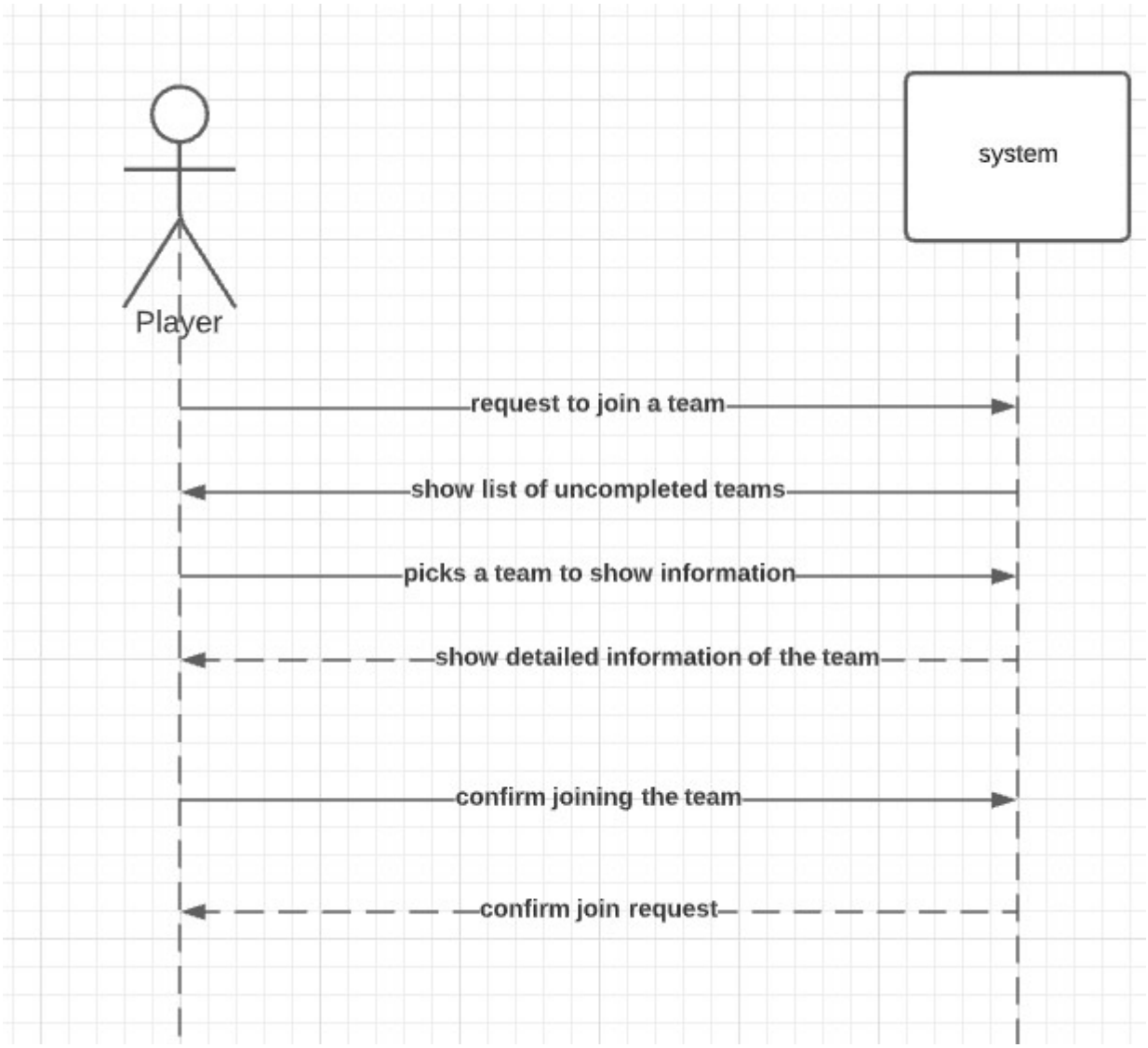
1- user register on the system:



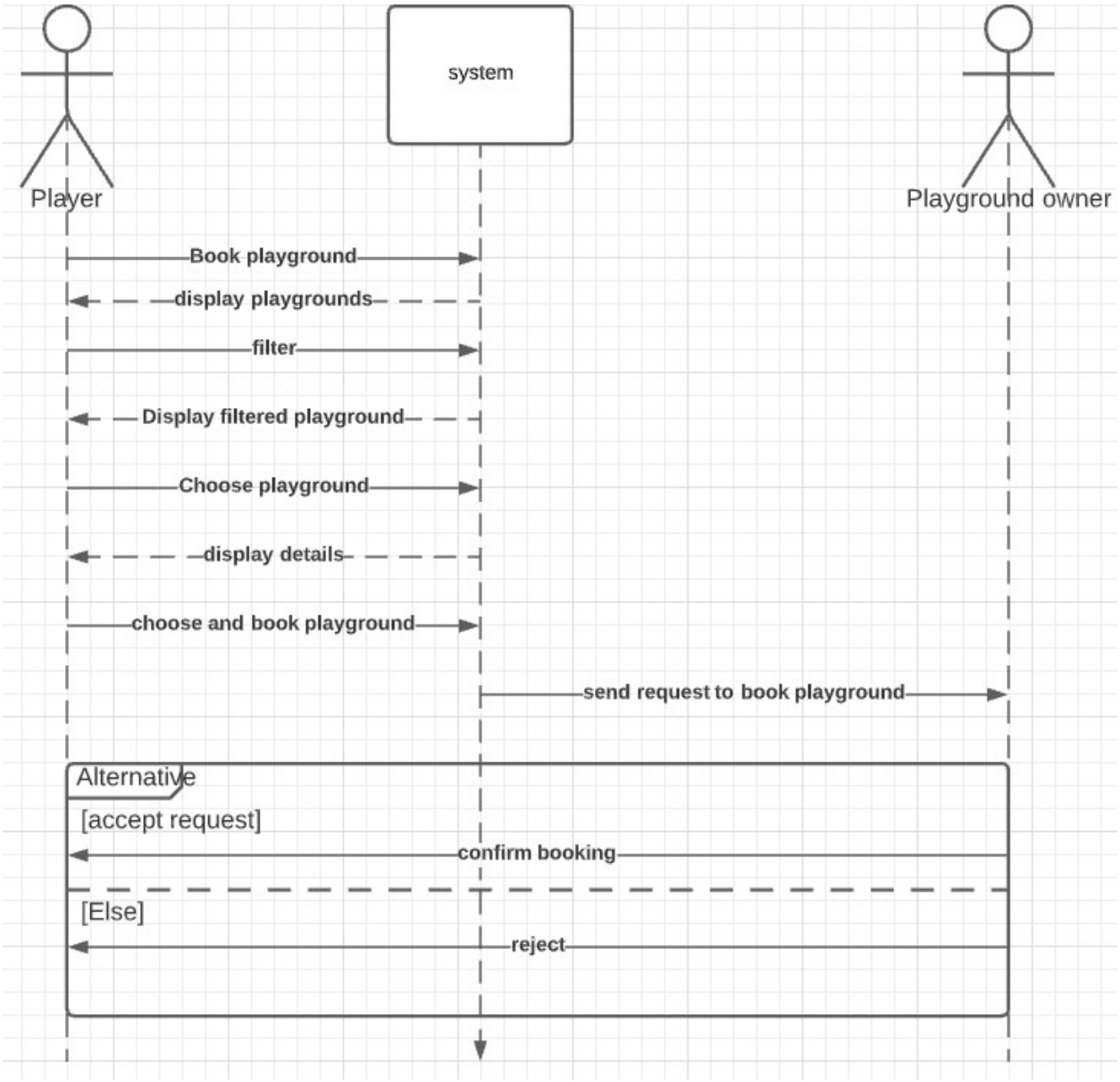
2- owner register a playground:



3- player join a team:



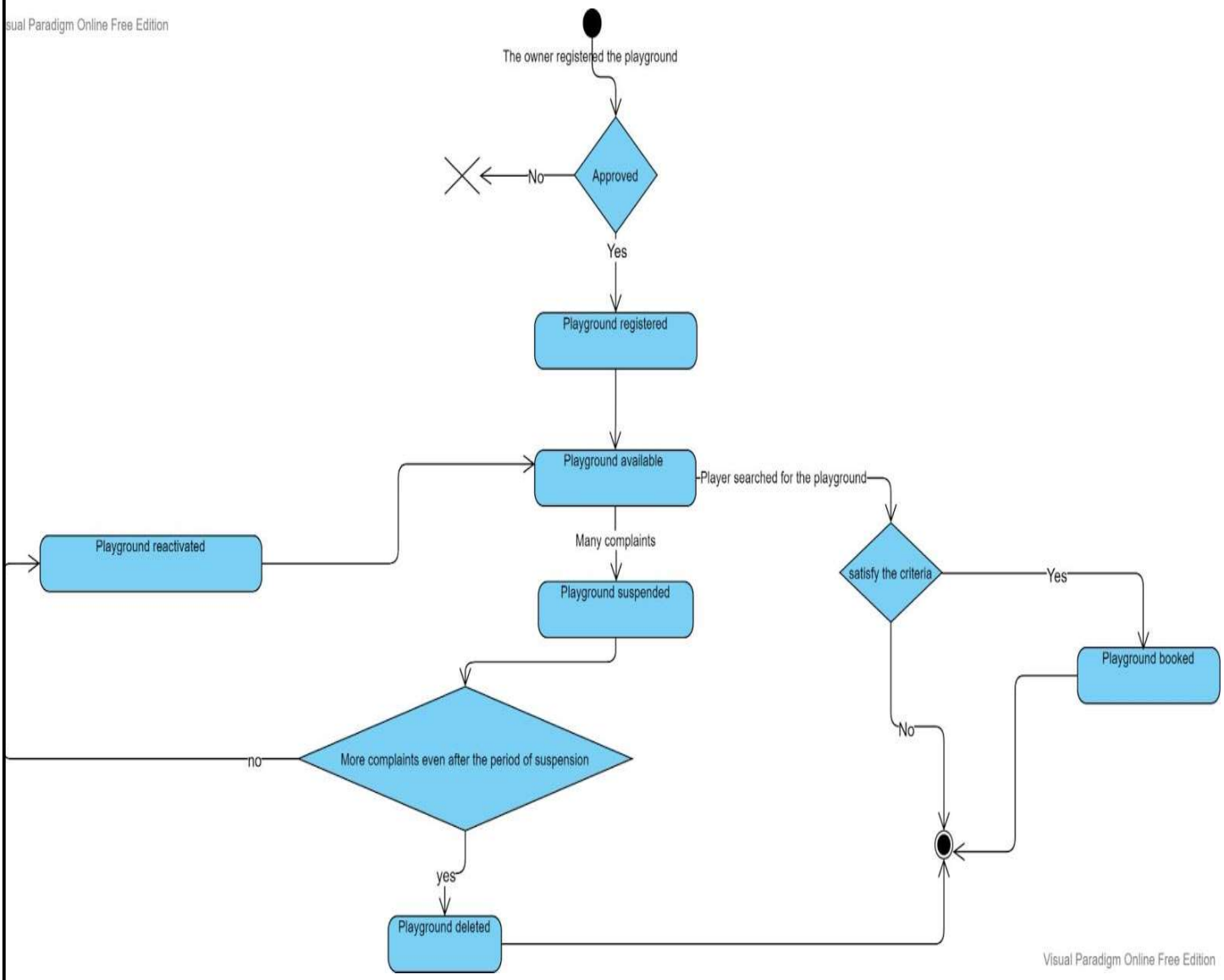
4- player register a playground:



Class - Sequence Usage Table:

Sequence Diagram	Classes Used	All Methods Used
1- user register a playground	Class User Class System Class Player Class Playground owner	Methods User.register() Methods User.addPlayer(play: player) Method User.addOwner(own: PlaygroundOwner)
2- owner register a playground	class Owner class System class Admin	method:Owner.login(email: String , password: String) Owner.registerPlayground(plg: Playground) method: System.checkCredentials(u1: User) method: Admin.approveRequest(plg: Playground) Admin.rejectRequest(plg: Playground)
3-player book a playground	player playground owner playground	displayNearPlayground() showRequests() acceptRequests()
4-player join a team	player	joinATeam()

IV. State Diagram



Tools:

- Visual-Paradigm,
- Lucid Chart.
- GitHub.
- IntelliJ idea (JAVA).
- Google document.
-Microsoft Word.

Ownership Report:

Item	Owners
Ahmed Essam Eldin Abdel-fattah Ibrahim	part of class diagram, sequence diagram (1 & 2), phase 3 and phase 4.
Habiba Tarek Fathi Al sayed	part of class diagram, class description and responsibility, document purpose and audience, Github and state diagram.
Al-Hossain Abd-Alaziz Youssef Mohamed	part of class diagram and sequence diagram (3 & 4) and phase 3.