

Cairo University

Faculty of Computers and Artificial Intelligence



CS251

Software Engineering I

((AMA2021))

Software Design Specifications

Version 0.0

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Team

ID	Name	Email	Mobile
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Document Purpose and Audience

- This document includes Software Design Specifications for GoFo football playground booking system.
- Purpose : help developers that will work on the project in order to be organized.
- **Document Audience:**
Client – Developers – Project Manager.



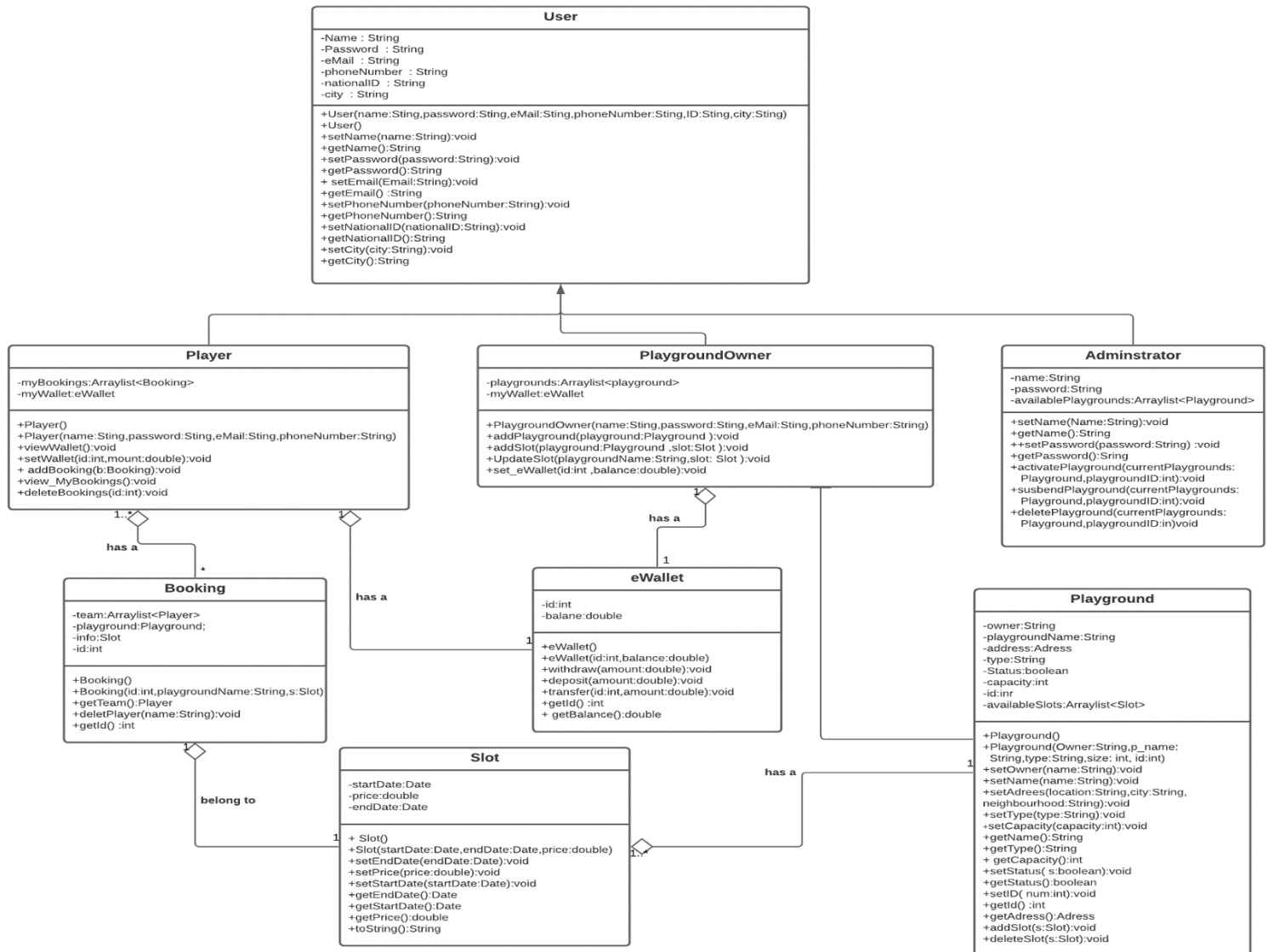
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System Models

I. Class Diagram(s)



To see all classes and the relationships with high quality :

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II. Class Descriptions

Class ID	Class Name	Description & Responsibility
1.	User	Responsible for recording and saving the data of all users.
2.	Player	The user can search for playground, book a playground. send an invitation to his friends and delete a booking.
3.	Playground	A class that hold the attributes and operations that are done on a Playground, and it is owner by a Playground Owner.
4.	Playground owner	He has thought. to add a playground, adjust his hours, and set a specific price per hour
5.	Administrator	It can suspend playground and add playground and permanently delete them so players cannot them if they find complaints or violate the laws.
6.	E-Wallet	A class that has the responsibility of controlling financial operations in the system, and can be connected to an outside method like Fawry, and any User must have one E-Wallet.
7.	Slot	A class slot define a start and end date for background.



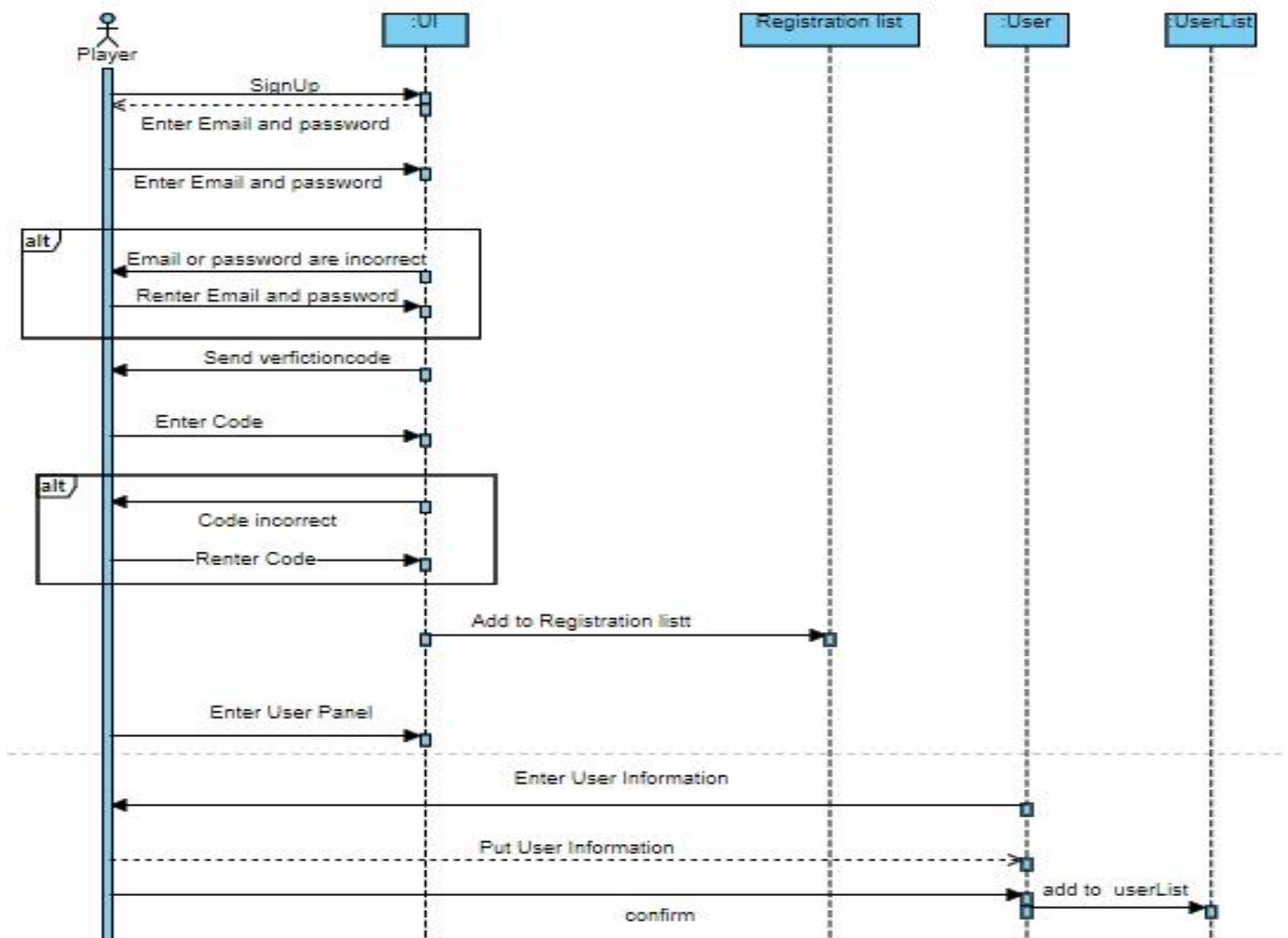
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III. Sequence diagrams

Register / Sign Up



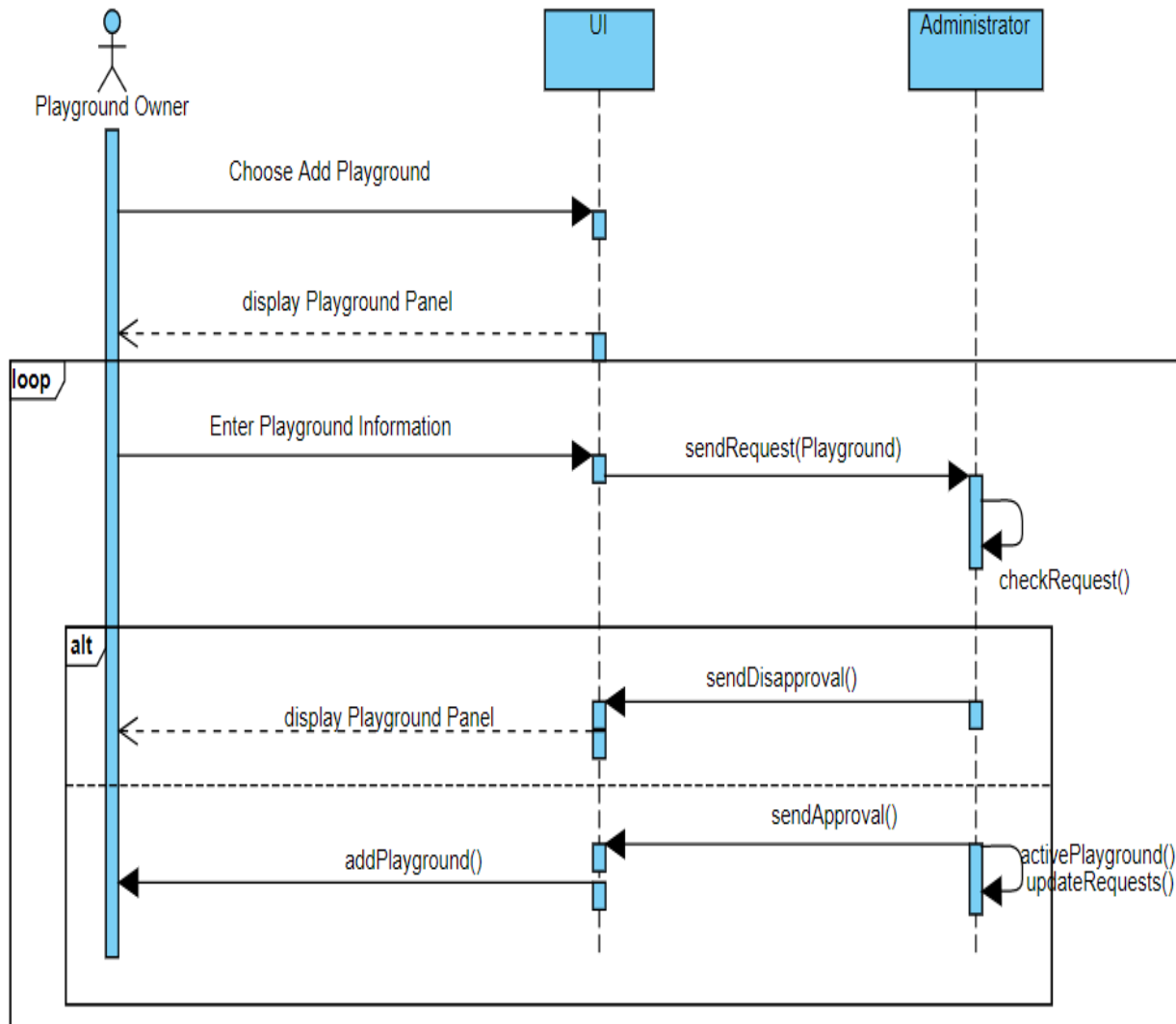


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Add a Playground



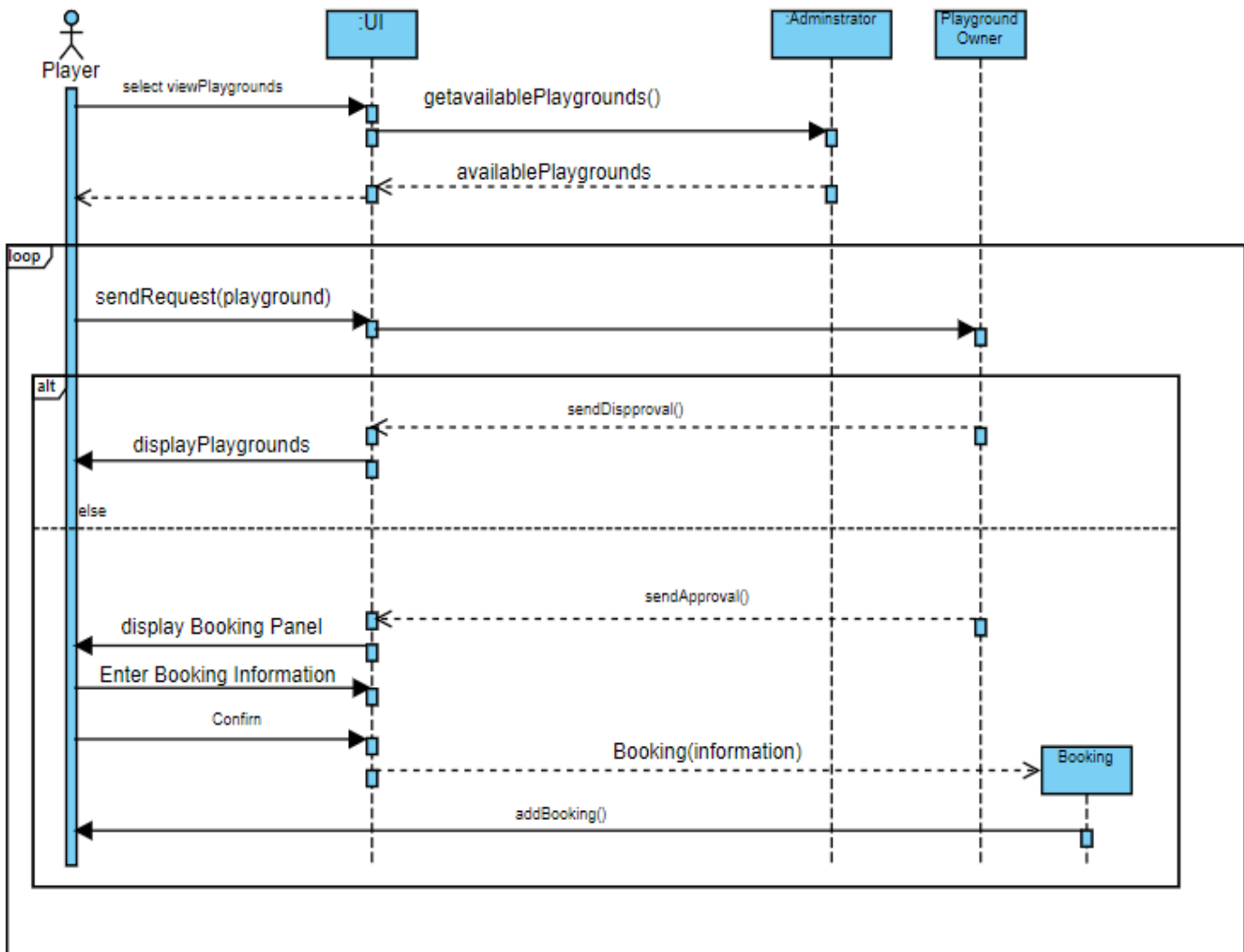


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Book a Playground



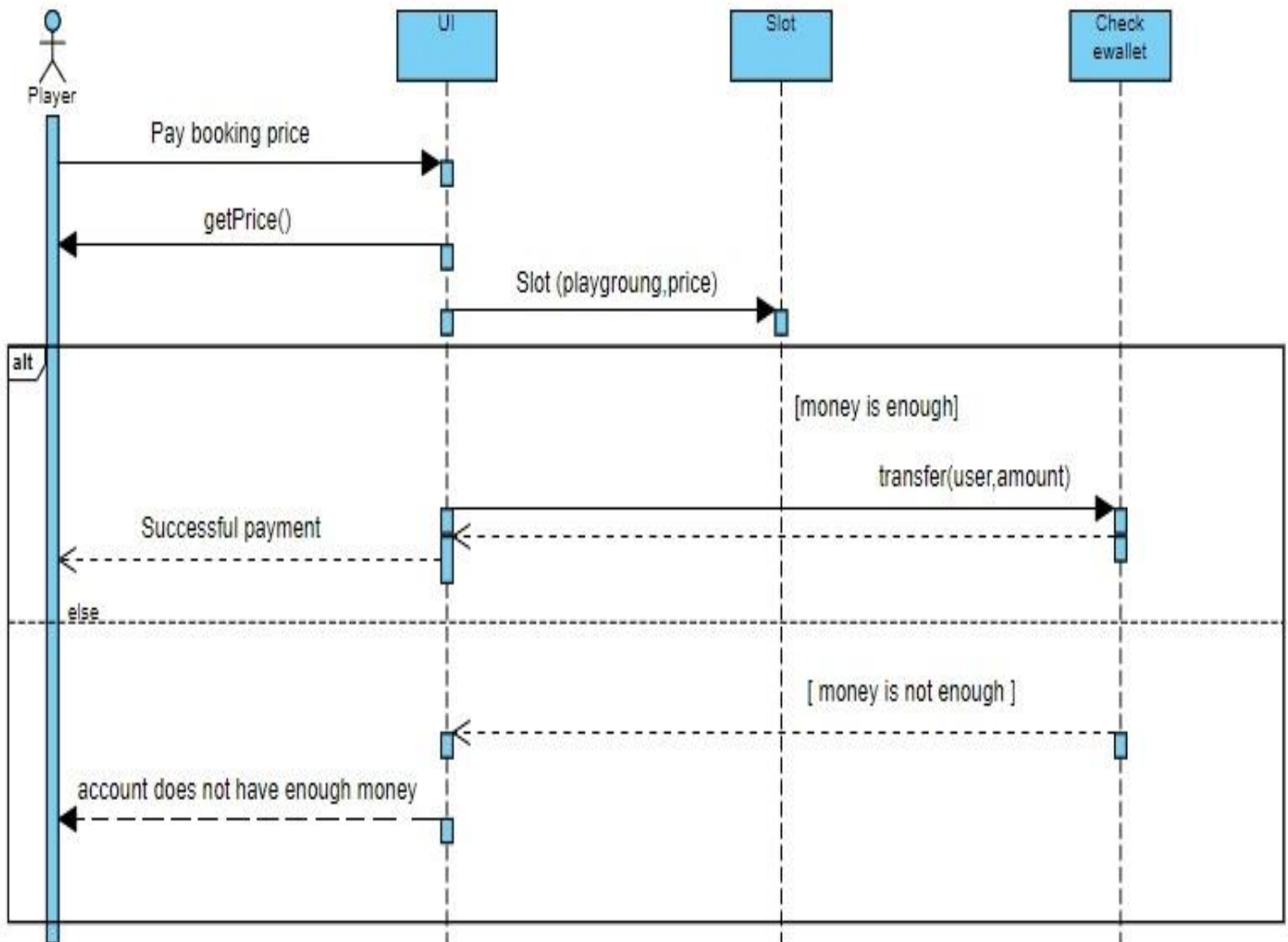


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Pay a price for playground





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Class - Sequence Usage Table

Sequence Diagram	Classes Used	All Methods Used
1. Register a new user	Class User	signUp() checkUsername() checkEmail() checkStrongPassword() User()
2. Add a Playground	Class PlaygroundOwner Class Playground	addPlayground() Playground() addPlayground(playground) activatePlayground()
3. Book a Playground	Class Player	bookPlayground()
4. Accept a Playground by Administrator	Class Administrator	approvePlayground()

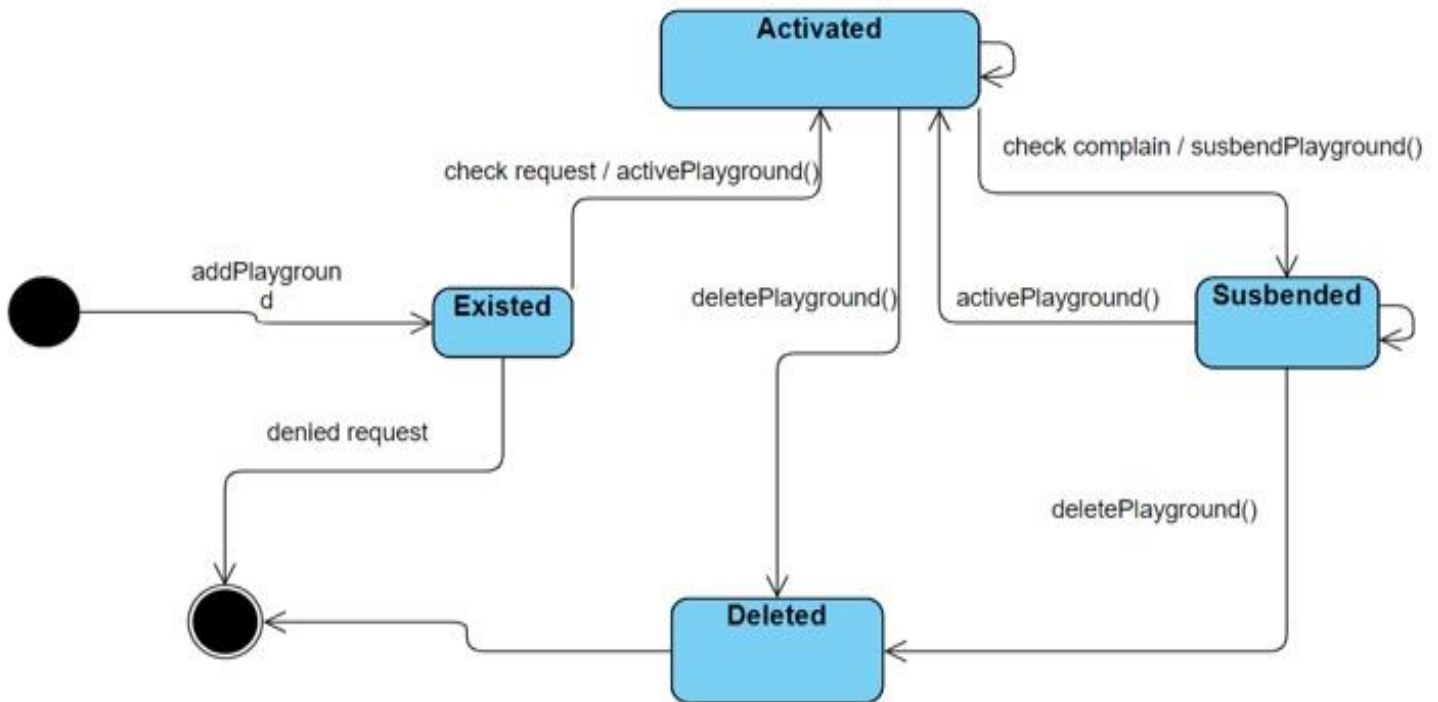


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State Diagram





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Tools

- **Online visual paradigm**
For sequence and state diagram
- **Lucid**
For class diagram

Ownership Report

Item	Owners
<ul style="list-style-type: none">- Document Purpose and Audience- Class Diagram- Sequence Diagram- Class - Sequence Usage Table	Abdalla Fadi Shehata
<ul style="list-style-type: none">- Class Descriptions	Ali Mohamed Abdelsamae
<ul style="list-style-type: none">- Class Diagram- Sequence Diagram- State Diagram	Mostafa Abdel Nasser Mohamed Ali