

Cairo University

Faculty of Computers and Artificial Intelligence



CS251

Intro. to Software Engineering (GOFO Booking System)

Software Requirements Specifications

Version 1.0

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Software Requirements Specifications

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Team

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Document Purpose and Audience

- This document includes Software Design Specifications for the GoFo footballplayground booking system.
- Purpose: help developers that will work on the project to beorganized.
- Audience: Player, Playground Owner, and Administrator.

Introduction

Software Purpose

This software is a system for booking playing hours in football playgrounds.

Software Scope

- The software has some actors for example Player, administrator, Playground owner.
- The software will connect the player with the playground owner to ease the bookingplayground process
- Software Features: book playground by pay for it using an eWallet.



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Definitions, acronyms, and abbreviations

- **Booking:** the process of booking a playground for a specific time.
- **Player:** a person who uses software and books a playground.
- **Playground Owner:** a person how adds his playgrounds.
- **eWallet:** a system that users can send and receive money through it.
- **Administrator:** control a whole system and the system operations.

Requirements

Functional Requirements

1) Player

- ➔ Register and Login into the software by name, email, password, and phone number.
- ➔ Book playgrounds in a specific time slot by selecting available playgrounds.
- ➔ paying rent playground using eWallet.
- ➔ Cancel booking and recover money.

2) Playground Owner

- ➔ **Register and Login** into the software by name, password, and phone number.
- ➔ **Add playground** by entering his name, phone number, location, and price for each hour.

3) Administrator

- ➔ **controlling** in the system can confirm adding a playground to the system or deleting the playground and suspending the playground.



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Non-Functional Requirements

- **Quality requirements**

- ➔ The system's response time for any request will be at minimum 1 second and 2 seconds as an average and 5 seconds as maximum.
- ➔ The system should handle a big number of requests.
- ➔ The system will be available all day.

- **Platform requirements**

- ➔ The system will be available for different platforms such as android, IOS and there will be a web version.

- **Usability**

- ➔ A user should be able to use the system with ease.

- **Security**

- ➔ User email and password are required to access the user information as a kind of protection of information.

- **Privacy**

- ➔ No private information will be public for everyone e.g., Email.

- **Flexibility**

- ➔ The system can interact with different users (Player, Playground owner, and Administrator) and easily responds to their requirements.



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System Models

Use Case Model

Administrator

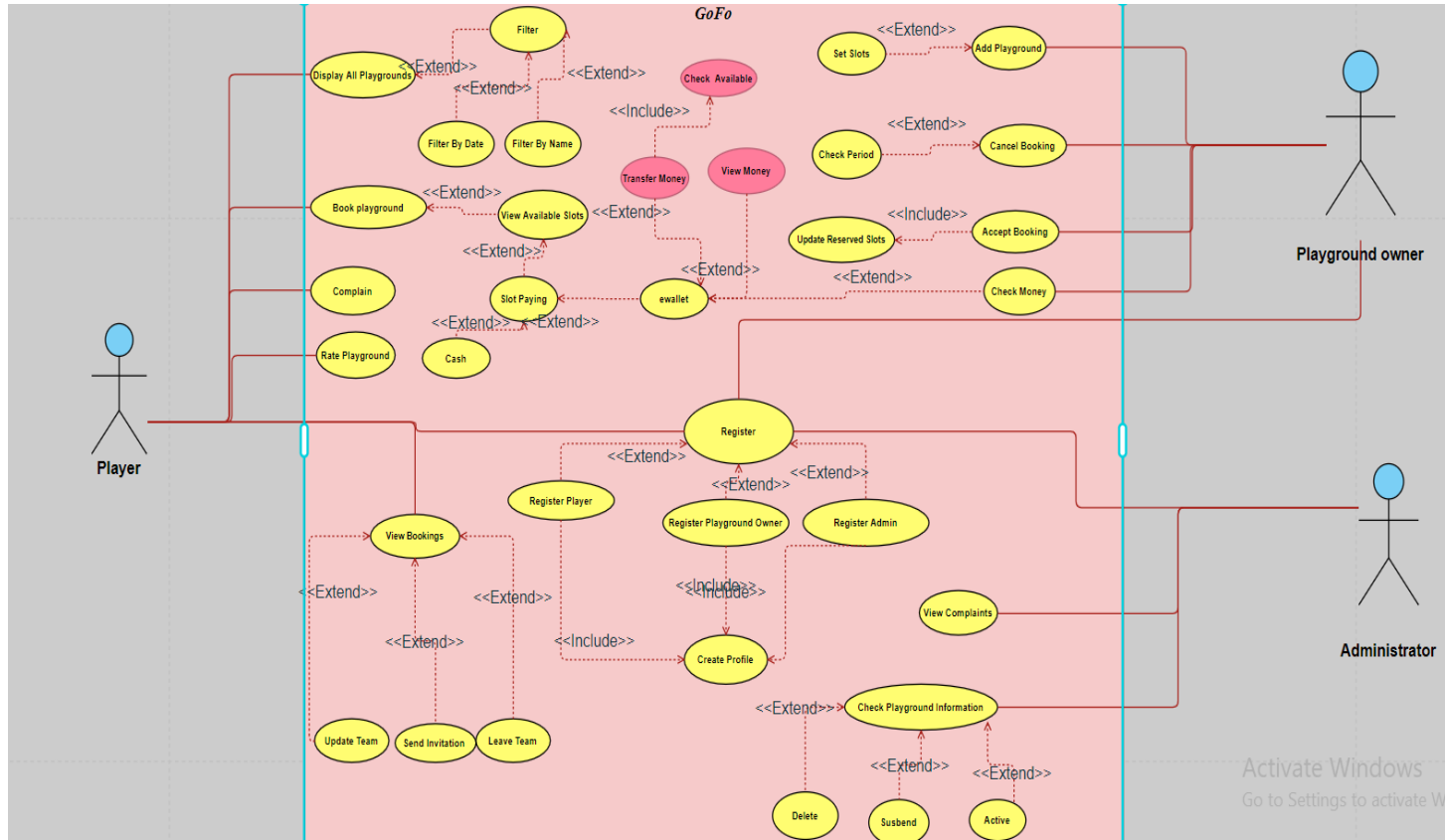
- The person who is responsible for manage the GoFo system
- Can accept or denied the registration process of player or playground owner
- Make sure that information's about playgrounds are true
- Check player complaints

Playground Owner

- The owner of the club or playground
- Can register his playground, feed system with information about his playground
- View his playgrounds and update their status.

Player

- The person who wants to book a playground to play with his friends
- Can register, search for a playground, book playground, register his team, rate playground and make a complaint





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Enriched User Stories

- User Story #1

| | |
|---------------------|---|
| User Story ID | US #1 |
| User Story Name | Sign Up |
| Actors | Player and Playground Owner |
| Description | As a Player or Playground Owner. I like to be able to sign up in the system. So that I create my profile. |
| Per condition | There are no Preconditions |
| Postcondition | The player or Playground Owner is added to the system. |
| Acceptance Criteria | Given I'm a new user and want to register in the system, so I'm on the sign-up page When I put my email and password Then a verification code is sent to my email and I 'm being able to create my profile |

- Scenarios

Normal Scenario

| Actor Action | System Response |
|--|--|
| Player or Playground Owner open welcome screen and choose to Sign Up and enter data. | |
| | send a verification email to the player. |
| The player or Playground Owner enter verification code | |
| | The system confirms registration. |



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Software Requirements Specifications

- User Story #2

| | |
|---------------------|---|
| User Story ID | US #2 |
| User Story Name | Add Playground |
| Actors | Playground Owner |
| Description | As a Playground Owner I like to be able to Add My Playgrounds So , that players can book my playgrounds |
| Per condition | Playground Owner log in system |
| Postcondition | playground added in the system |
| Acceptance Criteria | Given I'm in the playground panel to add my playground. When I add a name, Playground Owner, capacity, and type of ground Then my playground is added to the system and I can view it. |

- Scenarios

Normal Scenario

| Actor Action | System Response |
|--|--|
| playground owner chooses to add a new playground | |
| | System open panel of playground registration |
| playground owner adds playground information's | |
| | The system requests adding this playground |



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Software Requirements Specifications

- User Story #3

| | |
|---------------------|--|
| User Story ID | US #3 |
| User Story Name | Book a Playground |
| Actors | Player |
| Description | <p>As a Player</p> <p>I like to be able to book a Playground</p> <p>So, I can invite my friends to play in this playground</p> |
| Per condition | Player log in software |
| Postcondition | Player bookings updated and playground available slots updated |
| Acceptance Criteria | <p>Given I choose to book a playground</p> <p>When I choose the location of the playground</p> <p>Then the system shows all available playgrounds</p> |

- Scenarios

Normal Scenario

| Actor Action | System Response |
|--|--|
| player choose book a playground | |
| | The system shows all available playgrounds |
| Player choose appropriate playground after filtration and pays for the booking | |
| | System confirms booking |



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Software Requirements Specifications

- User Story #4

| | |
|---------------------|--|
| User Story ID | US #4 |
| User Story Name | Filter Playgrounds |
| Actors | Player |
| Description | As a Player I like to be able to filter Playgrounds So , I can find an appropriate playground |
| Per condition | Player log in software |
| Postcondition | |
| Acceptance Criteria | Given I choose filter playgrounds When I choose the location of the playground and date Then the system shows all available playgrounds that satisfy these requirements |

- Scenarios

Normal Scenario

| Actor Action | System Response |
|---|---|
| the player chooses to view all playgrounds | |
| | The system shows all available playgrounds |
| Player choose filter playgrounds | |
| | The system shows a filter panel |
| The player enters the location and date he needed | |
| | The system displays appropriate playgrounds |



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Software Requirements Specifications

- Scenarios

Exceptional Scenario

| Actor Action | System Response |
|--|--|
| the player chooses to view all playgrounds | |
| | The system shows all available playgrounds |
| Player choose filter playgrounds | |
| | The system shows a filter panel |
| Player enter location and date that no available playground meets with | |
| | System display “not found any playground” |

- User Story #5

| | |
|---------------------|--|
| User Story ID | US #5 |
| User Story Name | Active Playgrounds |
| Actors | Administrator |
| Description | As an Administrator I like to be able to active Playgrounds So, that can playground owners can make use of their playgrounds |
| Per condition | Administrator log in software |
| Postcondition | Playground becomes active |
| Acceptance Criteria | Given I view playgrounds requests When active playground Then the system will display it in the available playgrounds |



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Software Requirements Specifications

Normal Scenario

| Actor Action | System Response |
|---|--|
| Administrator press on playgrounds requests | |
| | The system shows all playgrounds requests |
| Administrator check information of playground | |
| | |
| Administrator active playground | |
| | The system sends a reply to the playground owner and put it in available playgrounds |

- Scenarios**

Exceptional Scenario

| Actor Action | System Response |
|---|--|
| Administrator press on playgrounds requests | |
| | The system shows all playgrounds requests |
| Administrator check information of playground | |
| Administrator denies request | |
| | |
| | The system sends a reply to the playground That request is denied |



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Software Requirements Specifications

- User Story #6

| | |
|---------------------|--|
| User Story ID | US #6 |
| User Story Name | Delete or Suspend Playgrounds |
| Actors | Administrator |
| Description | As an Administrator I like to be able to Delete or Suspend Playgrounds So, that I can respond to player's complaints |
| Per condition | Administrator log in software |
| Postcondition | Playground become suspended or deleted |
| Acceptance Criteria | Given I view player's complaints When suspend or delete playground Then system updated the status of the playground if it suspended or delete it |

Normal Scenario

| Actor | System Response |
|---|---|
| Action | |
| Administrator press on view complaints | |
| | The system shows all players complaints |
| Administrator review complaints | |
| | |
| The administrator chooses to suspend or delete the playground | |
| | The system sends a message to the playground owner and updates the playground status or deletes it. |



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Software Requirements Specifications

- User Story #7

| | |
|---------------------|--|
| User Story ID | US #7 |
| User Story Name | Delete or Suspend Playgrounds |
| Actors | Administrator |
| Description | As an Administrator I like to be able to Delete or Suspend Playgrounds So, that I can respond to player's complaints |
| Per condition | Administrator log in software |
| Postcondition | Playground become suspended or deleted |
| Acceptance Criteria | Given I view player's complaints When suspend or delete playground Then system updated the status of the playground if it suspended or delete it |

Normal Scenario

| Actor | System Response |
|---|---|
| Action | |
| Administrator press on view complaints | |
| | The system shows all players complaints |
| Administrator review complaints | |
| | |
| The administrator chooses to suspend or delete the playground | |
| | The system sends a message to the playground owner and updates the playground status or deletes it. |



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- User Story #8

| | |
|---------------------|--|
| User Story ID | US #8 |
| User Story Name | View Bookings |
| Actors | Player |
| Description | As a Player I like to be able to view my bookings So , that I know its date, create team, modify team, leave team, or cancel it |
| 'Per condition | The Player was logged into the system |
| Postcondition | Updated player's Bookings |
| Acceptance Criteria | Given I view My Bookings When I make any update of my bookings Then the system will update my bookings |

Normal Scenario

| Actor Action | System Response |
|--------------------------------|--|
| Player chooses view Bookings | |
| | The system shows all player's Bookings |
| Player view his bookings | |
| The player modify his bookings | |
| | System updated player's bookings. |



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- User Story #9

| | |
|---------------------|---|
| User Story ID | US #9 |
| User Story Name | Paying a slot |
| Actors | Player |
| Description | <p>As a Player</p> <p>I like to pay for booking using my ewallet</p> <p>So, that my booking accepted</p> |
| 'Per condition | The Player was logged into the system And book playground |
| Postcondition | |
| Acceptance Criteria | <p>Given I book a playground and and choose to pay a slot</p> <p>When transferring money to another playground owner ewallet</p> <p>Then the system will accept my booking</p> |

Normal Scenario

| Actor | System Response |
|---|---|
| Action | |
| The Player chooses to pay using his ewallet | |
| | The system check for player ewallet account |
| The player pays his bookings | |
| | |
| | The system accepts player's bookings. |



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Software Requirements Specifications

Exceptional Scenario

| Actor Action | System Response |
|---|--|
| The Player chooses to pay using his ewallet | |
| | The system check for player ewallet account |
| | The system doesn't found a player account or there is no enough balance in his account |
| | System displays “Invalid account” Or “Not enough balance” |
| | The system denies player’s bookings. |



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Software Requirements Specifications

- Screen Design

The image displays ten mobile application screens for the 'GoFo' project, organized into two rows of five. Each screen is represented by a smartphone frame.

Row 1 Screens:

- Welcome to GoFo:** Features four buttons: 'Sign Up', 'Log in', 'Admin', and 'Exit'.
- Registration:** Includes input fields for 'Email', 'Password', and a 'User' dropdown menu, with a 'Confirm' button at the bottom.
- Verification:** Displays the message 'We send you A Verification Code Check your email' and a 'Submit' button.
- User Profile:** Contains input fields for 'First Name', 'Last Name', 'Phone Number', 'National Id', and 'City', with a 'Confirm' button.
- Playground Owner Panel:** Shows a user icon and buttons for 'Add Playground', 'View Bookings', 'Set Slots', 'Cancel Booking', 'Check eWallet', and 'Log Out'.

Row 2 Screens:

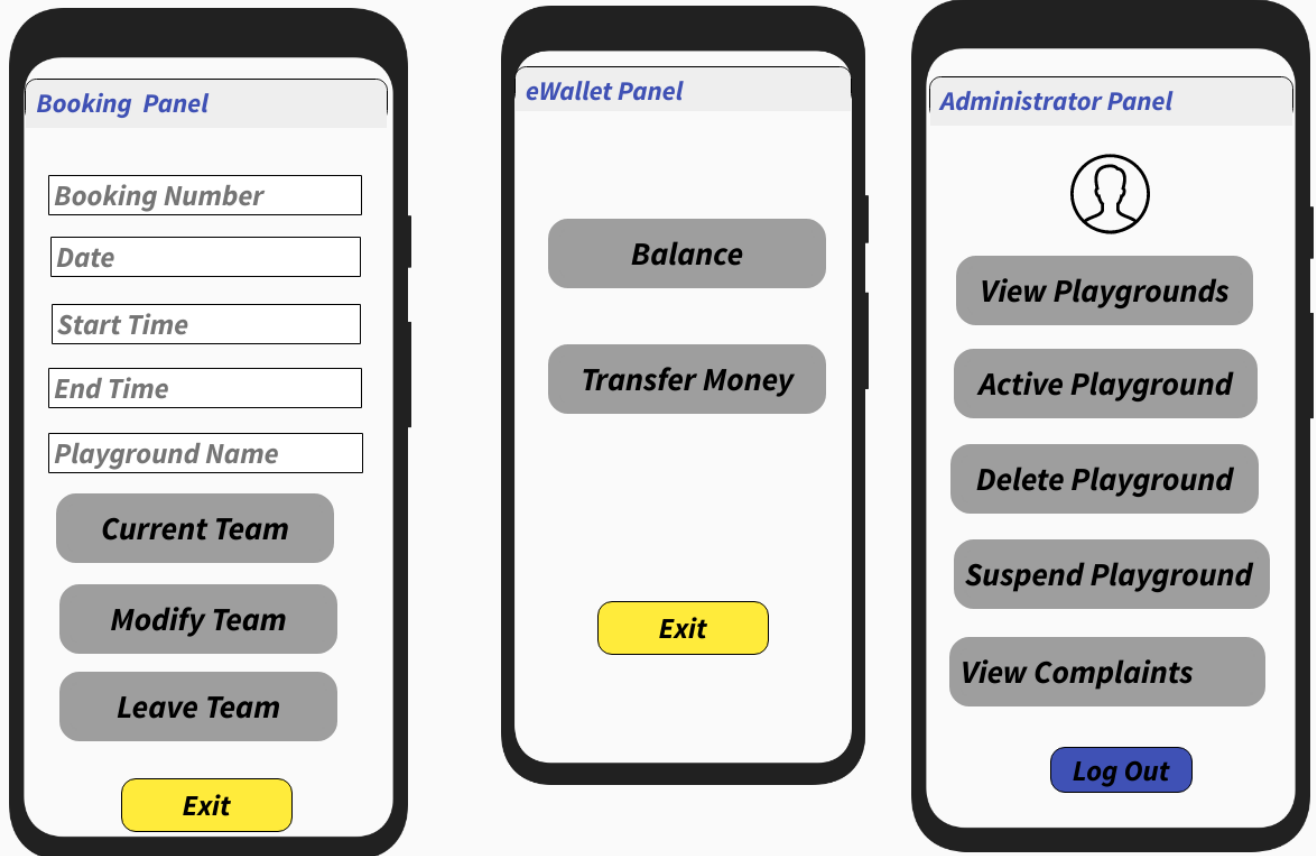
- Playground Panel:** Includes input fields for 'Name', 'City', 'Neighborhood', 'Location', and 'Google Map Link'. It also has radio buttons for 'capacity' (Five-Players, Seven-Players) and 'Type' (Natural, Tartan), with a 'Submit' button.
- Slots Panel:** Features input fields for 'Playground Name', 'Date' (pre-filled with '12 May 2016'), 'Start Time', and 'End Time', with 'Submit' and 'Add Another Slot' buttons.
- Player Panel:** Shows a user icon and buttons for 'View Bookings', 'Show Playgrounds', 'Book Playground', 'Filter Playgrounds', 'Create Team', 'Complain', 'Rate Playground', 'View eWallet', and 'Log Out'.
- Filter Panel:** Includes input fields for 'Start Time', 'End Time', 'Price', and 'Location', with a 'Filter' button.



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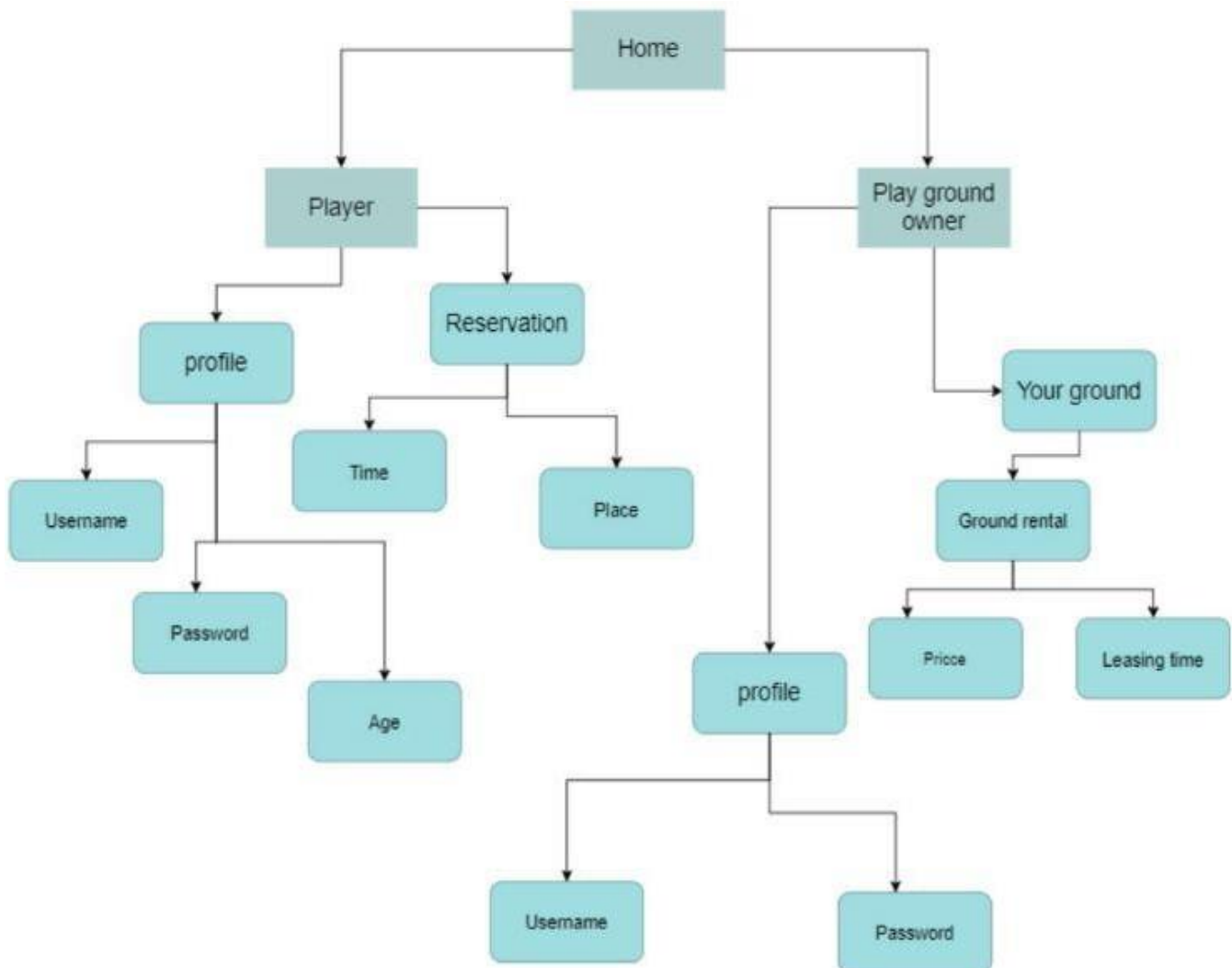


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System Navigation Map





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Tools

- online visual paradigm
- mops
- mock flow

Ownership Report

| Student | Items he created |
|----------------------------------|---|
| Abdalla Fadi Shehata Abdelsalam | <ul style="list-style-type: none">- Document Purpose and Audience- Software (Purpose, Scope, Definitions)- Functional and nonfunctional requirements- User Stories |
| Ali Mohamed Abdelsamea Ali | <ul style="list-style-type: none">- System Navigation Map |
| Mostafa Abdel Nasser Mohamed Ali | <ul style="list-style-type: none">- Use case model- Screen Design- User Stories |