

Cairo University
Faculty of Computers and Information



CS251

Software Engineering I

GoFo

**Software Requirements
Specifications**

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CS251: Phase 1 – The Avengers

Project: GoFo

Software Requirements Specifications

Contents

Team.....	3
Document Purpose and Audience	3
Introduction.....	3
Software Purpose	3
Software Scope.....	3
Definitions, acronyms, and abbreviations	4
Requirements.....	4
Functional Requirements	4
Non Functional Requirements	5
System Models	6
Use Case Model	6
Use Case Tables	7



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Project: GoFo

Software Requirements Specifications

Team

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Document Purpose and Audience

- This document focuses on reducing the time and effort for booking a playground.
- It serves everyone interesting in booking a playground also the playground owners.

Introduction

Software Purpose

- The purpose of this software is to make it easy for those who want to book a playground by saving time and effort.

Software Scope

There are some major features for this software:

- Display the available playgrounds.
- Display the available time slots for these playgrounds.
- Display the location for these playgrounds.
- Display the size and the price for the available playgrounds.



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Software Requirements Specifications

Definitions, acronyms, and abbreviations

	Description
Slot	It is the way the time is measured in the playground. 1 Slot = 1 hour.
State	It is the condition of each slot in the playground. It can be “Taken” or “Available”.
Suspend	It means that the playground is stopped from work may be from complaints or from other issues.

Requirements

Functional Requirements

- Making a profile.
- Register a playground.
- Activate a playground.
- Change playground available slots.
- Display available playgrounds.
- Filter available playgrounds.
- Set favorite team.
- Book a playground.
- Select a free slot.
- Calculate the total price.
- Update the state of booked slots.
- Delete a playground.
- Suspend a playground.



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Non Functional Requirements

	Details
Performance	<ul style="list-style-type: none">• Activate a playground, Change playground slots, Update the system, Delete a playground and Suspend a playground will be done in 1 to 10 seconds.
Platform	<ul style="list-style-type: none">• This software will work on both iOS & Android.



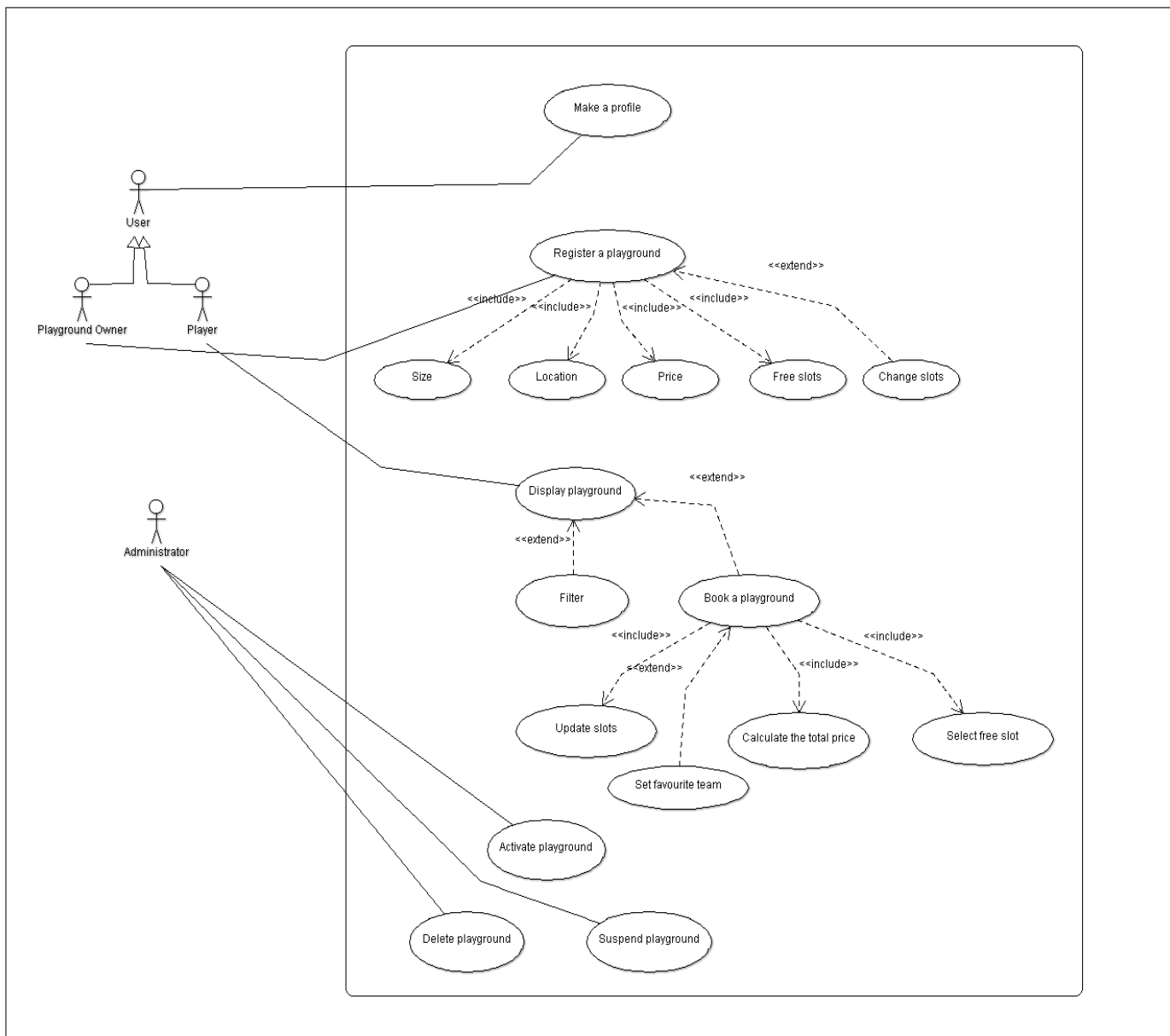
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System Models

Use Case Model





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Use Case Tables

Use Case ID:	1	
Use Case Name:	Making a profile.	
Actors:	Player & Playground owner.	
Pre-conditions:	None.	
Post-conditions:	None.	
Flow of events:	User Action	System Action
	1- Enter name.	
	2- Enter ID.	
	3- Enter password.	
		4- Create profile successfully.
Exceptions:	User Action	System Action
	1- Enter name, ID, password.	
		2- Name is already taken.
Includes:		
Notes and Issues:		



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Project: GoFo

Software Requirements Specifications

Use Case ID:	2	
Use Case Name:	Register a playground.	
Actors:	Playground owner.	
Pre-conditions:	Making a profile.	
Post-conditions:	None.	
Flow of events:	User Action	System Action
	1- Ask to register a playground.	
		2- Ask to fill more information (Price, Size, Location, Free slots).
	3- Fill the information.	
		4- Registered a playground successfully (Activate the playground).
	5- Change available slots.	6- Slots changed successfully.
Exceptions:	User Action	System Action
	1- Enter invalid information.	
		2- Can't activate the playground.



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Project: GoFo

Software Requirements Specifications

Includes:	Size, Location, Price, Free slots.
Notes and Issues:	

Use Case ID:	3	
Use Case Name:	Display playground.	
Actors:	Player.	
Pre-conditions:	Making a profile.	
Post-conditions:	Booking a playground.	
Flow of events:	User Action	System Action
	1- Display playground.	
		2- Display all playgrounds.
	3- Filter playgrounds (by available sots, by location).	
		4- Filter and display playgrounds.
Exceptions:	User Action	System Action



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Project: GoFo

Software Requirements Specifications

Includes:		
Notes and Issues:		

Use Case ID:	7	
Use Case Name:	Set Favorite Team	
Actors:	Player	
Pre-conditions:	Making a Profile	
Post-conditions:		
Flow of events:	User Action	System Action
	1 - Actor enters the name of the team he wants to set as favorite	
		2 - System verifies that the team exists
Exceptions:	User Action	System Action
	1 - Actor enters the name of the team he wants to set as favorite	



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		2 – The Team specified by the actor does not exist
Includes:	Verify Team In Database	
Notes and Issues:		

Use Case ID:	8	
Use Case Name:	Book a Playground	
Actors:	Player	
Pre-conditions:	Making a Profile	
Post-conditions:		
Flow of events:	User Action	System Action
	1 - Actor enters the name of the playground he wants to book	
		2 - System verifies that the playground exists
	3 – Actor chooses the ‘Book’ option	
		4 – System displays slots for the chosen playground



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Project: GoFo

Software Requirements Specifications

	5 - Actor chooses slot(s) he wants to book	
		6 - System verifies that the slot(s) are free of other matches
		7 – System updates slot(s) values in database so these slot(s) are now busy for other bookers
Exceptions:	User Action	System Action
	1 - Actor enters the name of the playground he wants to book	
		2 – Playground does not exist
	3 – Actor chooses the 'Book' option	
		4 – System unable to find any slots for the chosen playground
	5 - Actor chooses slot(s) he wants to book	
		6 – Slot(s) is busy
Includes:	Verify Playground in Database, Verify Payment Card Details, Check for Enough Funds, Select a Free Slot	



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Notes and Issues:	
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Use Case ID:	9	
Use Case Name:	Select a Free Slot	
Actors:	Player	
Pre-conditions:	Book a Playground	
Post-conditions:		
Flow of events:	User Action	System Action
	1 - Actor chooses slot(s) he wants to book	
		2 - System verifies that the slot(s) are free of other matches
		3 – System updates slot(s) values in database so these slot(s) are now busy for other bookers
Exceptions:	User Action	System Action
	1 - Actor chooses slot(s) he wants to book	
		2 – Slot(s) is busy



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Includes:	Check slot(s), Update the state of booked slots
Notes and Issues:	

Use Case ID:	10	
Use Case Name:	Update the state of booked slots	
Actors:	System	
Pre-conditions:	Book a Playground	
Post-conditions:	Slot(s) are busy	
Flow of events:	User Action	System Action
	1 - Actor communicates with database to establish connection	
	2 – Actor updates the specified slots as 'busy'	
Exceptions:	User Action	System Action
	1 – Unable to communicate with database	
Includes:	Check slot(s)	
Notes and Issues:		



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Software Requirements Specifications

Use Case ID:	11	
Use Case Name:	Delete a Playground	
Actors:	Administrator	
Pre-conditions:	Display Available Playgrounds	
Post-conditions:		
Flow of events:	User Action	System Action
	1 - Actor searches for the playground he wants to delete	
		2 - System verifies that the playground exists
	3 – Actor selects the playground and chooses the 'delete' button	
		4 – System deletes the playground and updates the database
Exceptions:	User Action	System Action
	1 - Actor searches for the playground he wants to delete	
		2 – Playground does not exist



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Software Requirements Specifications

	3 – Actor selects the playground and chooses the 'delete' option	
		4 – System unable to delete the playground or communicate with the database
Includes:	Verify Playground in Database, Delete Playground, Update Database	
Notes and Issues:		

Use Case ID:	12	
Use Case Name:	Suspend a Playground	
Actors:	Administrator	
Pre-conditions:	Display Available Playgrounds	
Post-conditions:		
Flow of events:	User Action	System Action
	1 - Actor searches for the playground he wants to suspend	
		2 - System verifies that the playground exists



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Project: GoFo

Software Requirements Specifications

	3 – Actor selects the playground and chooses the 'suspend' option	
		4 – System suspends the playground and updates the database
Exceptions:	User Action	System Action
	1 - Actor searches for the playground he wants to suspend	
		2 – Playground does not exist
	3 – Actor selects the playground and chooses the 'suspend' option	
		4 – System unable to suspend the playground or communicate with the database
Includes:	Verify Playground in Database, Suspend Playground, Update Database	
Notes and Issues:		



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Software Requirements Specifications