

## **User requirements document**

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Client: DuelSys Inc.

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## **Stakeholders**

The stakeholders of this project are:

1. Project Tutor: Frank De Lepper
2. Customer: DuelSys Inc.
3. Student(Developer): Tsvetislav Rangelov
4. Roles in the system: Staff, players

## Functional Requirements

MoSCow Prioritization	Functional Requirements
<b>Must</b>	FR-01: Manage Tournaments.  FR-02: Support Registering Players.  FR-03: Support generating tournament schedule.  FR-04: Support registering the results of games.  FR-05: Support showing tournament results and information.  FR-07: Support multiple sport types.  FR-10: Generate player profile.  FR-12: Handle ties.
<b>Could</b>	FR-06: Support multiple tournament systems.  FR-08: Support matches in a tournament.  FR-09: Support challenge games.

## Use Cases

FR-01

UC-01: Create Tournament.

Actor: Staff

Preconditions: Staff member must be logged in the WinForms application.

Main Success Scenario:

1. Staff member presses the Create Tournament button on the Home form.
2. The application redirects to a form containing input fields for creating a tournament.
3. Staff member inputs the necessary information.
4. The application creates the desired tournament.

Extensions:

3a: Staff member inputs invalid data(e.g a letter instead of a number for maximum amount of players)

1. The application displays “Invalid data format” message.
2. End of use case.

UC-02: Update Tournament.

Actor: Staff

Preconditions: Staff member must be logged in the WinForms application.

Main Success Scenario:

1. Staff member selects a tournament from the table to update, then presses the Update Tournament button on the Home form.
2. The application redirects to a form containing input fields for updating the specified tournament.
3. Staff member inputs the necessary update information.
4. The application updates the desired tournament.

Extensions:

3a: Staff member inputs invalid update data(e.g a letter instead of a number for maximum number of players)

1. The application display “Invalid data format” message.
2. End of use case.

#### UC-03: Delete Tournament

Actor: Staff

Preconditions: Staff member must be logged in the WinForms application.

Main Success Scenario:

1. Staff member selects a tournament from the table to delete, then presses the Delete Tournament button on the Home form.
2. The application displays a message “Tournament successfully deleted.”.

Extensions:

2a: No tournament is selected upon pressing the delete button

1. System displays message “No tournament selected.”.
2. End of use case.

#### UC-04: View Tournament

Actor: Staff

Preconditions: Staff member must be logged in the WinForms application.

Main Success Scenario:

1. Staff member selects a tournament from the table to view, then presses the More Details... button on the Home form.
2. The application redirects to a form containing tournament details and if any, the scheduled games for said tournament.

Extensions:

2a: No tournament is selected from the table.

1. The applications displays message “No tournament selected.”.
2. End of use case.

FR-02

UC-01: Register Player

Actor: Unregistered player

Main Success Scenario:

1. New user navigates to the Register page.
2. New user inputs their profile information and presses the submit button.
3. A player profile is created and saved containing all of the new user's details.

UC-02: Register Player for Tournament

Actor: Logged in Player

Precondition: Player must have a registered account in the website.

Main Success Scenario:

1. Player navigates to the tournaments page.
2. Player presses the view button on the tournament they desire to participate in.
3. Player is redirected to a page containing tournament details.
4. Player presses the "Register" button.
5. The system adds the player to the list of participants for that given tournament.

Extensions:

4a: Tournament start date has already passed

1. The register button is substituted with a "registration is suspended" message.
2. End of use case.

4b: The registered amount of players for that tournament exceeds the maximum amount of players that the tournament supports

1. The register button is substituted with a "registration is suspended" message.
2. End of use case.

4c: The tournament's schedule has already been generated and player games have been drafted.

1. The register button is substituted with a "registration is suspended" message.
2. End of use case.

4d. The player has already registered themselves for that tournament.

1. The register button is substituted with an “Exit Tournament” button.
2. End of use case.

#### UC-03: Exit Tournament

Actor: Logged in Player

Precondition: Player must have a registered account in the website and also be registered for this particular tournament beforehand.

Main Success Scenario:

1. Player presses the Exit Tournament button.
2. The system removes the player from the list of registered players for that particular tournament.

#### FR-03

#### UC-01: Generate Tournament Schedule

Actor: Staff

Preconditions: Staff member must be logged in the WinForms application.

Main Success Scenario:

1. Staff member selects a tournament from the table in the Home form, then presses the More Details... button.
2. The application redirects to a form containing tournament details and an empty table for scheduling the games.
3. Staff member presses the Schedule Games button
4. The system generates a schedule based on the tournament playing system (i.e Round-Robin)

Extensions:

3a: Schedule is already generated for that tournament

1. A message saying this tournament already has a generated schedule is shown.
2. End of use case.

3b: Players registered are less than the minimum players for that particular tournament

1. A message saying registered players are less than the minimum players needed to schedule the games is shown.
2. End of use case.

3c: The amount of players registered for the tournament is odd

1. A “dummy” competitor is added so that any number of competitors relatively prime to the number of competitors – 1 generates a completed schedule.
2. A schedule is generated, with the rules that any player that plays against the dummy competitor has a bye(automatically advances to the next round).

FR-04:

UC-01: Register results of a game

Actor: Staff

Preconditions: Staff must be logged in and the game has to not be a bye in the case of an odd number of competitors as well as the game has to not be scored already.

Main Success Scenario:

1. Staff selects a game from the schedule.
2. A form containing the player names and input fields for the score is shown.
3. The staff member inputs their scores with regard to the scoring system for that tournament, which depends on the sport that is being played.
4. The system saves the scores and the winner for that game.

Extensions:

3a: Staff inputs an invalid data format

1. The system displays an invalid format message.
2. End of use case.

FR-05:

UC-01: Show results of a tournament

Actor: Staff

Preconditions: Staff must be logged in and all of the games have to be completed

Main Success Scenario:

1. A list of the top 3(bronze, silver gold) medalists is shown below the table of the scheduled games. Any ties are handled on a first-come first-served basis.
2. End of use case.

FR-07:

UC-01: Support multiple sport types

Actor: Staff

Preconditions: Staff must be logged in the WinForms application.

Main Success Scenario:

1. The sport type is defined upon tournament creation.
2. The registered sport and its scoring system is saved.

FR-10:

UC-01: Generate player profile

Actor: Player

Preconditions: Player must be logged in to the website.

Main success scenario:

1. Player navigates to the profile page.
2. An overview of their personal details is shown along with the number of wins.

FR-12:

UC-01: Handle Ties

Preconditions: Player must be logged in to the website.

Main Success Scenario:

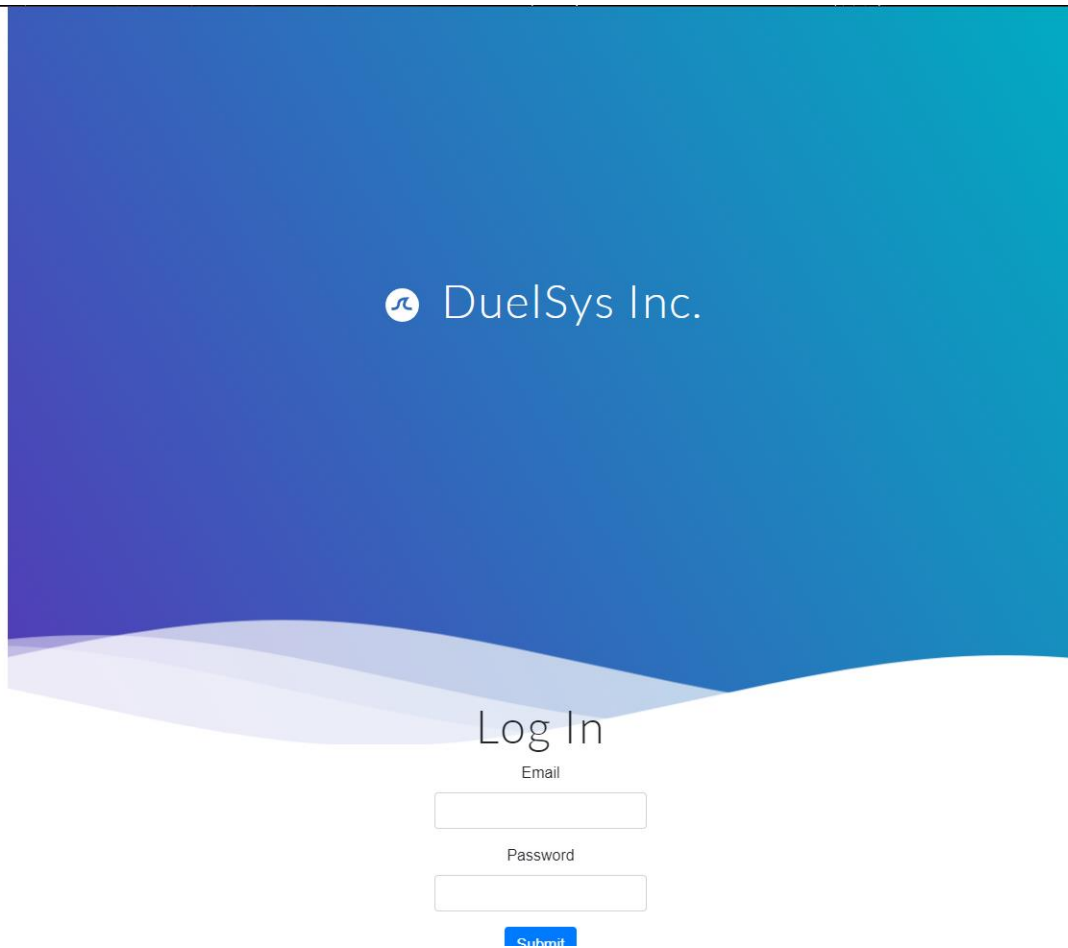
1. After all games have been scored, any players that have an identical amount of wins are tie-handled. This handling is based upon a first-come first-served basis, where the player who won his games earlier in the tournament will take precedent over the latter player.
2. End of use case.




## GUI

### 1. Log in Page(Website)

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The image shows a login page for DuelSys Inc. The background is a blue gradient with a wavy pattern at the bottom. The company logo, a circle containing a pi symbol, is positioned to the left of the text "DuelSys Inc.". Below this, the text "Log In" is centered. Underneath "Log In" are two input fields: the first is labeled "Email" and the second is labeled "Password". At the bottom center is a blue button with the text "Submit".

 DuelSys Inc.

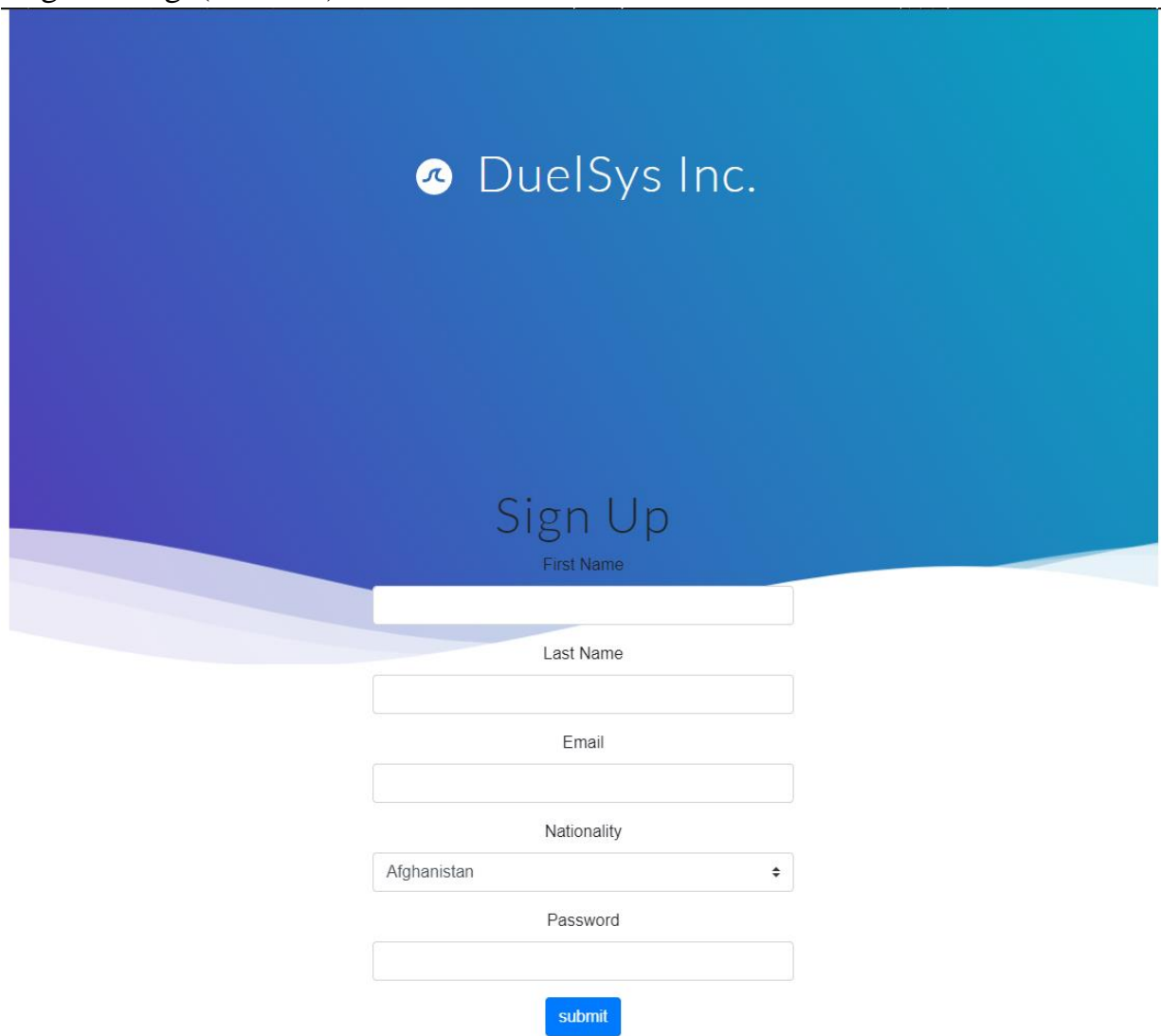
Log In

Email

Password

[Submit](#)

## 2. Register Page(Website)



The registration page features a blue gradient background with the DuelSys Inc. logo at the top. Below the logo, the text "Sign Up" is displayed. The form includes input fields for First Name, Last Name, Email, and Password. A dropdown menu for Nationality is set to "Afghanistan". A blue "submit" button is located at the bottom of the form.

DuelSys Inc.

Sign Up

First Name

Last Name

Email

Nationality

Afghanistan

Password


submit

## 3.Tournaments Page(Website)

DUELSYS INC. TOURNAMENTS PROFILE LOGOUT					
Sport	Start Date	EndDate	Minimum Players	Maximum Players	Scoring System
Chess	11-6-2022	15-6-2022	4	10	ROUND_ROBIN

View Details

#### 4. View Tournament Page(Website)

 DuelSys Inc.		
Sport: Chess		
Details: Chess Tournament		
Minimum Players: 4		
Maximum Players: 10		
Scoring System: ROUND_ROBIN		
The tournament has already started, registration is suspended.		
#	Matches	Scores
0	n n - Bye	0 - 0
1	Test1 Test1 - Test4 Test4	1 - 0
2	Test2 Test2 - Test3 Test3	0 - 0
3	n n - Test4 Test4	0 - 0
4	Bye - Test3 Test3	0 - 0
5	Test1 Test1 - Test2 Test2	1 - 0
6	n n - Test3 Test3	0 - 0
7	Test4 Test4 - Test2 Test2	0 - 0
8	Bye - Test1 Test1	0 - 0
9	n n - Test2 Test2	0 - 0
10	Test3 Test3 - Test1 Test1	0 - 0
11	Test4 Test4 - Bye	0 - 0

Standings cannot be calculated at the moment, too few games have been completed

## 5. Player Profile Page(Website)

[DUELSYS INC.](#) [TOURNAMENTS](#) [PROFILE](#) [LOGOUT](#)

### Statistics and details

n n

Email: n@gmail.com

Nationality: Bahrain

Your wins: 0

### Your tournaments

Sport	Start Date	End Date	Minimum Players	Maximum Players	Scoring System	
Chess	11-6-2022	15-6-2022	4	10	ROUND_ROBIN	<a href="#">View Details</a>

## 6.Home Form(WinForms)

	ID	Type	Description	Location
▶	6	Chess	Chess Tournam...	Eindhoven
*				

[Create Tournament](#) [Update Tournament](#)

[Delete Tournament](#)

[More Details...](#)

[Log Out](#)

## 7.View Tournament Form(WinForms)

	ID	Player1	Player2	Player 1 Score
▶	428	n n	Bye	0
	429	Test1 Test1	Test4 Test4	1
	430	Test2 Test2	Test3 Test3	0
	431	n n	Test4 Test4	0
	432	Bye	Test3 Test3	0
	433	Test1 Test1	Test2 Test2	1
	434	n n	Test3 Test3	0
	435	Test4 Test4	Test2 Test2	0
	436	Bye	Test1 Test1	0
	437	n n	Test2 Test2	0
	438	Test3 Test3	Test1 Test1	0
	439	Test4 Test4	Bye	0
*				

Players Registered: 5  
Minimum Players: 4  
Maximum Players: 10

[Generate Schedule](#) [View Game](#)

[Back to Tournaments](#)

## 8. Score Game Form(WinForms)

[Back To Games](#)

Test2 Test2      Test3 Test3

Score:       Score:

[Register Results](#)

**NOTE: All scoring must follow the specified sport for the tournament.**