**User Requirements Specification**

DualSys Inc.

27.04.2022

Tihomir Ivanov

Tutor – Jacco Snoeren

Version 0.3

**Content**

Introduction .........................................................................................................................3

Deliverable ..........................................................................................................................3

User Requirements ...............................................................................................................4

Use Cases .............................................................................................................................5

**Introduction**

For the next six weeks, the client is DualSys inc. The aim of the project is to develop a system that allows their clients to easily manage their sports tournaments and keep track of each participant.

For now, the software must support a round-robin tournament system for badminton, but the client also wants the software to have the potential support for other types of tournament systems and sports.

A tournament consists of multiple players, competing in badminton games. To determine which player is the best, the software is to registers all the results of each game.   
This software solution will be used by sport association staff, responsible for organizing tournaments and by players, who can find information about any tournament they want to participate in.

*During the development the MoSCoW model is going to be used. It is a prioritization technique used in management, project management, and software development to reach a common understanding with stakeholders on the importance of each requirement’s delivery.*

*(*[*https://www.productplan.com/glossary/moscow-prioritization/*](https://www.productplan.com/glossary/moscow-prioritization/) *-***MoSCoW Prioritization***)*

**USER REQUIREMENTS**

**M= Must have** **S=Should have** **C=Could have** **W=Won’t have**

* A staff should be able to create information for a new tournament. **(M)**
* A staff should be able to access the information for every tournament. **(M)**
* A staff should be able to update the information for every tournament. **(M)**
* A staff should be able to delete the information for every tournament. **(M)**

**These requirements must be implemented in a desktop application.**

* A player should be able to visit the sport association’s website. **(M)**
* A player should be able to retrieve the list of available tournaments. **(M)**
* A player should be able to register themselves for a tournament. **(M)**

**These requirements must be implemented in a web application.**

* A staff should be able to generate the tournament’s schedule.

**This requirement must be implemented in a desktop application. (M)**

* A staff should be able to register a game’s results. **(M)**

**Тhis should be done in a web or desktop application.**

* A user should be able to retrieve information about any given tournament. **(M)**

**This requirement must be implemented in a web application.**

* It should be possible, for a staff member, to specify what tournament system should be used when creating a new tournament. **(M)**
* It should be possible, for a staff member, to specify which sport type when creating new tournament. **(S)**
* A staff should be able to organize multi-game matches. **(W)**
* A user should be able to retrieve the list of players, participating in the tournament, based on their current position/rank in the tournament. **(M)**
* A user should be able to see a participating player’s ranking in the general information. **(W)**
* A user should be able to see a participating player’s individual matches. **(W)**
* It should be possible for a player to challenge another player for a game. **(W)**
* A staff should be able to register a tie result. (**C)**
* A user should be able to log in to from the website. **(M)**
* A user should be able to log in from the application. **(M)**
* A user should be able to log out from the website **(M)**
* A user should be able to log out from the application **(M)**

**USE CASES**

**1. Use case: Log in as Staff from desktop – User requirement 20**

Actor: Staff

Main Success Scenario:

* User opens application
* User fills in login credentials (username, password)
* System opens tournament panel
* End of use case

Extensions:

2a: No connection to database

1: System displays an appropriate error message

2: End of use case

4a: User types wrong credentials

1: System displays error message

2: Return to MSS step 2

**2. Use case: Open tournaments list – User requirement 2**

Actor: Staff

Precondition: User is logged in

Main Success Scenario:

* User opens tournament panel
* Application shows available tournaments
* End of use case

Extensions:

1a: No connection to database

1: System displays an appropriate error message

2: End of use case

2a: Tournament list is empty

1: System displays appropriate message

2: End of use case

**3. Use case: Add tournament – User requirement 1**

Actor: Staff

Precondition: Tournament list is opened

Main Success Scenario:

* User clicks add button
* Application requests tournament information (player limit, sport, duration, location, etc.)
* User confirms entered information
* System shows result message
* End of use case

Extensions:

3a: Invalid tournament information

1: System displays an appropriate error message

2: Go to MSS Step 2

**4. Use case: Edit tournament – User requirement 3**

Actor: Staff

Precondition: Tournament list is opened

Main Success Scenario:

* User selects tournament
* Application requests tournament information (player limit, sport, duration, location, etc.)
* User confirms entered information
* System shows result message
* End of use case

Extensions:

3a: Invalid tournament information

1: System displays an appropriate error message

2: Go to MSS Step 2

**5. Use case: Delete tournament - User requirement 4**

Actor: Staff

Precondition: Tournament list is open

Main Success Scenario:

* User selects tournament
* User clicks on delete button
* Application requests confirmation
* Application returns to tournament list
* End of use case

**6. Use case: Log off from desktop - User requirement 22**

Actor: Staff

Precondition: User is logged in from desktop

Main Success Scenario:

* User clicks on log out button
* User is navigated to the login window
* End of use case

**7. Use case: Log in as player from website - User requirement 19**

Actor: Player

Precondition: None

Main Success Scenario:

* User opens tournament site
* Site requests credentials(username,password)
* System confirms credentials
* Site opens to homepage
* End of use case

Extension:

3a: Wrong/Invalid credentials entered

Go to MSS step 2

**8. Use case: Open available tournaments - User requirement 6,5**

Actor: Staff/Player

Precondition: User is logged in from the website

Main Success Scenario:

* User navigates to tournaments page
* Page loads available tournaments
* End of use case

**9. Use case: Register for tournament - User requirement 7,6,5**

Actor: Player

Precondition: User is logged in from the website, user is on tournaments page

Main Success Scenario:

* User selects a tournament
* User clicks on the register button
* User is redirected to tournaments page
* End of use case

Extension:

3a. No tournamentsavailable

End of use case

**10. Use case: Generate tournament schedule - User requirement 8,20**

Actor: Staff

Precondition: User is logged in as staff in desktop

Main Success Scenario:

* User selects a tournament
* User clicks on the schedule button
* User clicks on the generate button
* System generates a schedule based on the duration, sport type and participating players
* End of use case

Extension:

4a Schedule already available:

1. User clicks on the delete button

2. Go to MSS Step 3

**11. Use case: Register tournament results - User requirement 9**

Actor: Staff

Precondition: User is logged in as staff in desktop

Main Success Scenario:

* User selects a tournament
* User clicks on register results button
* System requires a result
* System checks entered result
* System confirms registration
* End of use case

Extension:

4a: Invalid result entered

1. System shows appropriate message

2. Go to MSS Step 3

**12. Use case: See participating players - User requirement 14**

Actor: User

Precondition: User is logged in from website

Main Success Scenario:

* User navigates to the tournaments page
* Site shows every tournament with the registered players for it
* End of use case

13. Use case**: Logging out from website - User requirement 21,19**

Actor: Staff

Precondition: User is logged in from the website

Main Success Scenario:

* User clicks on the log out button
* User is redirected to the login page
* End of use case

**Test Cases**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ID** | **UC** | **Name** | **Precondition** | **Test data** | **Expected result** |
| TC-01 | UC-01 | Login as Staff from desktop | None | Username:staff  Password:0000 | The application opens |
| TC-02 | UC-01 | Login with non-staff credentials from desktop | None | Username:player  Password:0000 | System shows error message for wrong credentials |
| TC-03 | UC-02 | Open tournaments list | Logged in  desktop | None | The list with registered tournaments opens. |
| TC-04 | UC-02 | Open empty tournaments list | Logged in as Staff | None | System shows message for empty list |
| TC-05 | UC-03 | Add tournament | Tournament list open | Sport:Badminton  Max Players:4  Min Players:2  Description:None  Duration:1.05-2.05  Location:StreetName 1  System:Round-robin | The new tournament should appear in the list. |
| TC-06 | UC-03 | Add tournament with missing data | Tournament list open | Sport:  Max Players:4  Min Players:2  Description:None  Duration:1.05-2.05  Location:StreetName 1  System:Round-robin | System shows message for missing fields |
| TC-07 | UC-04 | Edit tournament | Selected tournament | Sport:Badminton  Max Players:4  Min Players:2  Description:Test description  Duration:1.05-2.05  Location:StreetName 1  System:Round-robin | Confirmation of successful changes. |
| TC-08 | UC-04 | Edit tournament  with missing data | Selected tournament | Sport:  Max Players:4  Min Players:2  Description:None  Duration:1.05-2.05  Location:StreetName 1  System:Round-robin | System shows message for missing fields |
| TC-09 | UC-05 | Delete tournament | Selected tournament | None | The selected tournament should disappear from the list. |
| TC-10 | UC-06 | Log off from desktop | Logged in | None | The application should close. |
| TC-11 | UC-07 | Log in from website | None | Username:Player  Password:1111 | Redirected to homepage. |
| TC-12 | UC-08 | Open available tournaments | Logged in  website | None | Redirect to tournaments page |
| TC-13 | UC-09 | Register for tournament | Tournament page opened,  Logged as player | First Name: Sport Last Name: Sportman | Confirmation of successful registration. |
| TC-14 | UC-09 | Register with missing data | Tournament page opened,  Logged as player | First Name:  Last Name:Sportman | Redirect to edit page |
| TC-15 | UC-10 | Generate tournament schedule | Logged in desktop | None | Open schedule window |
| TC-16 | UC-11 | Register tournament results | Logged in desktop | 1-2 | Open results window |
| TC-17 | UC-11 | Register invalid results | Logged in desktop | -1-0.5 | System shows message for invalid data |
| TC-18 | UC-12 | See participating players | Logged in desktop | None | Open participating player list |
| TC-19 | UC-13 | Logging out from website | Logged in website | None | The user is redirected to the login page |