

USER REQUIREMENTS SPECIFICATION

Synthesis assignment



12th May 2022

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# 1. Agreements with client

In accordance with the documentation that was provided for the project “DuelSys inc.”. The following conclusions came regarding the scope and priorities of the project:

* The project will consist of desktop application, web application and a database which both applications will connect to.
* The desktop should have the following functionalities:
  + CRUD [[1]](#footnote-1)operations regarding *tournaments*, managing tournament’s data
    - Including multiple sport types
  + Generation of tournament schedule
  + Registering the result of games
* The web application should have the following functionalities:
  + Register functionality, allowing users to register themselves on the website so that they can participate in tournaments.
  + Login functionality, allowing users to enter the website
  + Tournament overview, displaying information regarding tournaments
  + Schedule overview, displaying the schedule of tournaments
* Tournaments should have the following attributes in the database: *unique identification attribute (ID), tournament name, description, location, minimum players to participate, maximum players that can participate, tournament system information, tournament sport type, start and end dates.*
* Players can register to participate tournament if the maximum number of players is not reached and it one week (1) before the start date of the tournament.
* The support of different types means to support the different rules of scoring for the specific sport

# 2. Requirements

## 2.1. Desktop application

|  |  |  |
| --- | --- | --- |
| ID | Functionality | Priority |
| DA1[[2]](#footnote-2) | Staff must be able to create tournaments | MUST[[3]](#footnote-3) |
| DA2 | Staff must be able to see information regarding a specified tournament | MUST |
| DA3 | Staff must be able to update information regarding tournaments | MUST |
| DA4 | Staff must be able to delete tournaments | MUST |
| DA5 | Staff must be able to generate tournament’s schedule | MUST |
| DA6 | Staff must be able to results after games | MUST |

## 2.2 Web application

|  |  |  |
| --- | --- | --- |
| ID | Functionality | Priority |
| WA1[[4]](#footnote-4) | Users must be able to register on the website | MUST |
| WA2 | Users must be able to login the website | MUST |
| WA3 | Users must be able to see the tournament schedule | MUST |
| WA4 | Users must be able to see results of games | MUST |
| WA5 | Users must be able to see tournament information | MUST |
| WA6 | Users must be able to participate tournaments | MUST |
| WA7 | Users should be able to cancel their participation of a tournament | SHOULD |
| WA8 | Users must be able to see a leader board of a specific tournament | MUST |

# 3. Use Cases

## 3.1 Desktop application

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ID | Use Case | Actor | Main Success scenario | Extensions |
| DA1 | Staff must be able to create tournaments | Staff | 1. Staff opens tournament page 2. Clicks “create tournament” 3. System opens new window with fields 4. Staff fills in all required information and confirms 5. System confirms the creation of the new tournament 6. System closes the window 7. System displays all tournaments | *4a. Any of the fields is not filled.*   1. *System displays that all fields must be filled* 2. *Return to MSS step 4*   *4a. Information formatted incorrectly*   1. *System displays that the information is formatted incorrectly* 2. *System clears wrongly formatted fields* 3. *Return to MSS step 4* |
| DA2 | Staff must be able to see information regarding a specified tournament | Staff | 1. Staff opens tournament page 2. System displays all tournaments 3. Staff double clicks on a specified tournament 4. The tournament information interface displays with the relevant information of the chosen tournament | *Not applicable* |
| DA3 | Staff must be able to update information regarding tournaments | Staff | 1. Staff opens tournament page 2. System displays all tournaments 3. Staff double clicks on a specified tournament 4. The tournament information interface displays with the relevant information of the chosen tournament 5. Staff updates the information of the tournament, by editing the information in the fields 6. Staff confirms the changes of the tournament 7. System displays the chosen tournament has been updated 8. The tournament information window closes 9. System displays all tournaments | *6a. Staff does not change any of the information displayed in the fields.*   1. *The information of the tournament stays the same.* 2. *Return to MSS step 8.*   *6b. Any of the information fields are empty or field with incorrect type of data.*   1. *System displays that part of the information is incorrect or missing.* 2. *Return to MSS step 5.* |
| DA4 | Staff must be able to delete tournaments | Staff | 1. Staff opens tournament page 2. System displays all tournaments 3. Staff chooses a tournament by double clicking on it 4. Staff presses the button for deleting tournament 5. System displays a window in which the staff must confirm by writing “DELETE” and confirms 6. System deletes the chosen tournament 7. System displays that the chosen tournament has been deleted 8. System displays updated list of tournaments | *6a. Wrong input for confirmation.*   1. *System displays that the input was wrong* 2. *return to MSS step 5.* |
| DA5 | Staff must be able to generate tournament’s schedule | Staff | 1. Staff opens schedule page 2. System displays tournaments 3. Staff double clicks on a tournament 4. System displays a message that there are not matches for this tournament 5. System opens a new window 6. Staff presses “create schedule” button 7. System generates and displays it | *3a. If tournament has matches.*   1. *System displays all matches and information regarding of them* 2. *End of use case*   *6a. If tournament has not reached the minimum players.*   1. *System displays not enough player message.* 2. *End of use case* |
| DA6 | Staff must be able to register results after games | Staff | 1. Staff opens schedule page 2. System displays tournaments 3. Staff double clicks on a tournament 4. System opens a new window with all the matches 5. Staff selects a match that he wants to update the score and presses “update score” 6. System opens a new window 7. Staff enters the scores of the players in the new window and confirms 8. System closes the window with the scores 9. System notify that the score is updated and reloads the matches | *3a. Tournaments does not have matches.*   1. *System displays message no matches were found* 2. *End of use case*   *7a. Scores are invalid.*   1. *System displays that the scores are invalid* 2. *Return to MSS step 7* |

## 3.2 Web application

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ID | Use Case | Actor | Main success scenario | Extension |
| WA1 | Users must be able to register on the website | User | 1. User opens website 2. User navigates to “register” page 3. System displays register form with fields 4. User fills in the fields and presses the button” Register” 5. System navigates user to “log in” page | *4a. Any of the information fields are empty or field with incorrect type of data*   1. *System displays that part of the information is incorrect or missing* 2. *Return to MSS step 4.*   *4b. Username is not unique*   1. *System displays that the username is already taken.* 2. *Return to MSS step 4.* |
| WA2 | Users must be able to log in the website | User | 1. User opens website 2. User navigates to “log in” page 3. System displays log in form with fields 4. User fills in the fields username and password and presses the button “Log In” 5. System logs in the user navigating him to the landing page | *4a.* Any of the requested login information is incorrect   1. *System displays that login credentials were incorrect* 2. *Return to MSS step 4.* |
| WA3 | Users must be able to see the tournament schedule | User | 1. User opens the website 2. User navigates to the “schedule” page 3. System displays matches and their results | *Not applicable* |
| WA4 | Users must be able to see results of games | User | 1. User opens the website 2. User navigates to the “schedule” page 3. System displays matches and their results | *Not applicable* |
| WA5 | Users must be able to see tournament information | User | 1. User opens website 2. User logs in the website 3. User navigates to “tournaments” page 4. System displays all tournaments | *Not applicable* |
| WA6 | Users must be able to participate tournaments | User | 1. User opens website 2. User logs in the website 3. User navigates to “tournaments” page 4. System displays all tournaments 5. User clicks on “participate“ button of a specific tournament 6. System reloads the page, displaying tournaments | *Not applicable* |
| WA7 | Users should be able to cancel their participation of a tournament | User | 1. User open website 2. User logs in the website 3. User navigates to “tournaments” page 4. System displays all tournaments 5. User clicks on “cancel” button of a tournament 6. System reloads the page, displaying tournaments | *Not applicable* |
| WA8 | Users must be able to see a leader board of a specific tournament | User | 1. User open website 2. User navigates to “home” page 3. System displays all tournaments that have started 4. User clicks on a tournament 5. System navigates user to a new page and displays the leader board of the specific tournament. | *Not applicable* |

# 4. Graphic User Interface (GUI)

## 4.1 Desktop application GUI

A picture containing square

Description automatically generated

*Figure 2. Main application form*

This page is the main window that the staff employee will be using after he has logged in

Chart

Description automatically generated with medium confidence

*Figure 3. Tournament page in desktop application*

In this page you can view all tournaments and you have access to create, update, and delete tournaments.

Graphical user interface

Description automatically generated

*Figure 4. Schedule page*

In this page a calendar will be shown with all the events (start and end dates of tournaments)

## 4.2 Web application GUI

A picture containing chart

Description automatically generated

*Figure 1. Landing page*

This is the landing page of the website. Common information will be displayed here

Graphical user interface

Description automatically generated

*Figure 2. Register page*

This is the register page where users can register themselves in the system so that they can access other pages in the application.

Graphical user interface

Description automatically generated with medium confidence

*Figure 3. Log In page*

In this page once users have accounts, they can log in their profiles gaining access to the other pages.

Graphical user interface

Description automatically generated with medium confidence

*Figure 4. Profile page*

This is the profile page where the user can see his personal information and can update them.

1. CRUD – Create / Read / Update / Delete [↑](#footnote-ref-1)
2. DA – function requirements regarding desktop application [↑](#footnote-ref-2)
3. MoSCoW – method to prioritize functions [↑](#footnote-ref-3)
4. WA – function requirements regarding web application [↑](#footnote-ref-4)