

USER REQUIREMENTS SPECIFICATION

Synthesis assignment



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# 1. Running a tournament

The logistics of a tournament can be divided into four (4) different phases.

## Phase 1: Creating a tournament

Firstly, an association staff creates a tournament by specifying the following information:

* Sport type (i.e., *badminton*[[1]](#footnote-1))
* Description information
* Duration information (start and end dates)
* The minimum and maximum number of players
* Location information (i.e., and address)
* Tournament system information (i.e., *round-robin*[[2]](#footnote-2))

After creating the tournament, it should become available for players to register themselves for it.

## Phase 2: Registering players

When a player is interested in participating in a tournament, they can visit the sport association’s website, retrieve the list of available tournaments, and register themselves for the one they are interested in.

Note that a tournament is only available for registration when the number of maximum players has not been reached and it is one (1) week before the start date of the tournament.

## Phase 3: The tournament

A tournament only starts when there are enough players (i.e., the minimum number of players). When the minimum number is not reached, it should be shown on the website and the remaining phases are not applicable. This also means that it then should not be possible to, for example, register results of the matches.

If the minimum number of players are met, the software should generate an overview of the games with which players play against each other (e.g., the tournament schedule). This schedule is based on the selected tournament system (i.e., round-robin).

When a given game has been played (i.e., finished) between two players, the results must be registered in the system by a staff member.

The official badminton scoring system must be followed/enforced when registering the result:

* A game consists of 21 points
* If the game reaches 20-20 points, the player that gains a 2-point lead wins the game
* At 29-29, the side scoring the 30th point wins the game

## Phase 4: Showing tournament results

Any interested party should be able to retrieve the statistics of a given tournament. The following information should be shown:

* Tournaments information
* Tournament schedule with the games between players and, if any, the results, of the played games.

# 2. Requirements

## 2.1. Desktop application

|  |  |  |
| --- | --- | --- |
| ID | Functionality | Priority |
| DA1 | Staff must be able to log in the desktop application | MUST |
| DA2[[3]](#footnote-3) | Staff must be able to create tournaments | MUST[[4]](#footnote-4) |
| DA3 | Staff must be able to see information regarding a specified tournament | MUST |
| DA4 | Staff must be able to update information regarding tournaments | MUST |
| DA5 | Staff must be able to delete tournaments | MUST |
| DA6 | Staff must be able to generate tournament’s schedule | MUST |
| DA7 | Staff must be able to register results after games | MUST |

## 2.2 Web application

|  |  |  |
| --- | --- | --- |
| ID | Functionality | Priority |
| WA1[[5]](#footnote-5) | Staff should be able to log on the website ?? – should be only players able to log on the website | ? |
| WA2 | Users must be able to register on the website | MUST |
| WA3 | Users must be able to log on the website | MUST |
| WA4 | Users must be able to see the tournament schedule | MUST |
| WA5 | Users must be able to see results of games | MUST |
| WA6 | Users must be able to see tournament information | MUST |
| WA7 | Users should be able to see their personal information | SHOULD |
| WA8 | Users should be able to update their personal information | SHOULD |
| WA9 | Users must be able to take part in tournaments | MUST |

# 3. Use Cases

## 3.1 Desktop application

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ID | Use Case | Actor | Main Success scenario | Extensions |
| DA1 | Staff must be able to log in | Staff | 1. Staff opens application 2. System requests login information 3. Staff fills in username & password and confirms 4. System opens main application window | *3a. Any of the requested login information is incorrect*   1. *System displays the login was unsuccessful* 2. *System clears the information fields* 3. *Return to MSS step 2*   *3a. Any of the fields is empty*   1. *System displays that all fields must be filed in.* 2. *Return to MSS step 2* |
| DA2 | 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 information is missing* 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* |
| DA3 | 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* |
| DA4 | 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 interface 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.* |
| DA5 | Staff must be able to delete tournaments | Staff | 1. Staff opens tournament page 2. System displays all tournaments 3. Staff chooses a tournament 4. Staff presses the button for deleting tournament 5. User verification interface displays requiring the password of the logged-in staff 6. Staff fills in his/her password and confirms 7. System deletes the chosen tournament 8. System displays that the chosen tournament has been deleted 9. System displays updated list of tournaments | *4a. None of the tournaments from the list is selected*   1. *System displays that no tournament has been selected.* 2. *Return to MSS step 3.*   *6a. No password or wrong one has been inputted.*   1. *System displays that the password is incorrect return to MSS step 5.* |
| DA6 | Staff must be able to generate tournament’s schedule | Staff | ? | ? |
| DA7 | Staff must be able to register results after games | Staff | ? | ? |

## 3.2 Web application

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ID | Use Case | Actor | Main success scenario | Extension |
| WA1 | ? | Staff | ? | ? |
| WA2 | 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.* |
| WA3 | Users must be able to log on 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.* |
| WA4 | Users must be able to see the tournament schedule | User | 1. User logs on the website 2. User navigates to the “schedule” page 3. System displays schedule | *Not applicable* |
| WA5 | Users must be able to see results of games | User | ? | ? |
| WA6 | Users must be able to see tournament information | User | ? | ? |
| WA7 | Users should be able to see their personal information | User | 1. User logs on the website 2. User navigates to the “profile” page 3. System displays user’s information | *Not applicable* |
| WA8 | Users should be able to update their personal information | User | 1. User logs on the website 2. User navigates to the “profile” page 3. System displays user’s information 4. User presses button “update profile” 5. System displays form with all the information of the relevant user 6. User updates the information of his profile, by editing the information in the fields 7. User confirms the changes of the profile 8. System redirects the user to his profile page | *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 7.*   *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 6.* |
| WA9 | Users must be able to take part in tournaments | User | ? | ? |

# 4. Graphic User Interface (GUI)

## 4.1 Desktop application GUI

Graphical user interface, application

Description automatically generated

*Figure 1. Login From*

On this log in form any staff employee can enter their credentials and log in to the system.

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 with medium confidence

*Figure 2. Profile page*

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

1. Badminton – is a racquet sport played using racquets to hit a shuttlecock across a net; see https://en.wikipedia.org/wiki/Badminton [↑](#footnote-ref-1)
2. Round-robin is an all-play-type of tournament system; see https://en.wikipedia.org/wiki/Round-robin\_tournament [↑](#footnote-ref-2)
3. DA – function requirements regarding desktop application [↑](#footnote-ref-3)
4. MoSCoW – method to prioritize functions [↑](#footnote-ref-4)
5. WA – function requirements regarding web application [↑](#footnote-ref-5)