User Requirements Specifications

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Contents

Agreements with the client

To begin with the desktop application, First of all, the client asked Lucas to make a system to manage tournaments, this will be done using the desktop application. Furthermore, the client wants a system that can generate a tournament schedule.

To continue with the web application, the client needs an application where you can register a player for a tournament and log in on the web app. Finally, for the web app, Lucas needs to add the tournament information and results of a tournament, for the players to see.

In addition to this, we also agreed that Lucas can choose if he wants to implement registering the results of a game on the web- or desktop application.

The major requirement we concluded to go with supporting multiple tournament systems. Last of all for the minor requirement, we agreed to go with showing the leaderboards of a tournament.

Non-functional requirements

The non-functional requirements must be implemented properly.

NRF-01: Maintainable and extendable

NRF-02: Bug-free system

NFR-03: Secure software

Functional requirements

FR-01: Manage Tournaments

FR-02: Support registering players

FR-03: Support generating tournament schedule

FR-04: Support registering the results of the games

FR-05: Support showing tournament information and results

FR-06: Support multiple tournament systems

FR-07: Support multiple sports types

FR-08: Support matches in a tournament

FR-09: Support leader board

FR-10: Generate a player profile

FR-11: Support challenge games

FR-12: Handle ties

MOSCOW

Musts

FR-01: Manage Tournaments

FR-02: Support registering players

FR-03: Support generating tournament schedule

FR-04: Support registering the results of the games

FR-05: Support showing tournament information and results

FR-06: Support multiple tournament systems

FR-09: Support leader board

Should

FR-10: Generate a player profile

Could

FR-07: Support multiple sports types

FR-08: Support matches in a tournament

FR-11: Support challenge games

FR-12: Handle ties

Won't

Use Cases

Use Case: Add a tournament (FR-01)

Actor: Staff
Preconditions: The staff user is at the page to manage the tournaments.
Main Success Scenario:
1. Staff users fill in the required information to add a tournament (description, location, start- and end date, sport, and tournament system).
2. The staff user adds the tournament.
3. The system clears all the filled in information and it will store the tournament.

Extensions:
- 2a: Not all fields are filled in.
  1. The system shows a message that not every field is filled in.
  2. The system returns you the page.
  3. Back to step 3.
- 2b: The start date is not correct.
  1. The system shows a message that the start date is not valid.
  2. Back to step 3.
- 2c: The end date is earlier than the start date.
  1. The system shows a message that the end date is not valid.
  2. Back to step 3.

Use Case: Register for a tournament (FR-02)

Actor: participant
Preconditions: The participant is logged in.
Main Success Scenario:
1. The participant wants to register for a tournament.
2. The participant chooses a tournament and joins it.
3. The system will save the participant and shows a message with "successfully added".

Extensions:
- 2: The registration of the participant cannot be saved
  1. The system will show a message that is not possible to sign-up for a tournament at the moment.
  2. Back to step 1.

Use Case: generate a tournament schedule (FR-03)

Actor: Staff

Main Success Scenario:
1. The staff user wants to generate a tournament schedule.
2. The system will show the page with all the tournaments.
3. The staff user selects a tournament.
4. The staff user generates a specific tournament.
5. The system will generate all the matches, saves every match and it will show it.

Extensions:

3: The system failed to show the matches.
1. The system will show a message that it is not possible at the moment to show the matches.
2. Back to step 2.

Use Case: Register match result (FR-04)

Actor: Staff

Preconditions: The staff user sees the information about registering a match.

Main Success Scenario:
1. The staff user selects a tournament.
2. The staff user selects a game that has been concluded.
3. The staff user fills in the required information(points and date) and adds the match.
4. The system saves the match registration of the user.

Extensions:

2: The match input is wrong.
1. The system shows a message that the filled-in information is not correct.
2. Back to step 2.

Use Case: Show tournament information (FR-05)

Actor: User

Preconditions: The user is logged in. The user sees all the tournaments.

Main Success Scenario:
1. The user selects a tournament to view.
2. The system will show a page with information(matches, concluded match) about the selected tournament.

Extensions:

2: The system cannot find the saved tournaments.
1. The system will show a page that the tournaments cannot be viewed at the moment
2. Back to step 2.

Use Case: Record a match result (FR-08)

Actor: User, staff user
Preconditions: The staff user must be logged in. The staff user sees the information of the match
Main Success Scenario:

1. The user plays the first match against his opponent.
2. The staff user will register the match results.
3. The user plays the second match against his opponent.
4. The staff user will register the second match.
5. The system will register points to the players.

Extensions:

> 5: The system could not save the register of the points.
> 1. The system will show a message that he could not register the final results of the matches.
> 2. End case.

Use Case: Show the leader board of a tournament(FR-09)

Actor: User
Preconditions: The user sees the information of every tournament.
Main Success Scenario:

1. The user wants to see the leader board of a tournament and selects one.
2. The system will show the page with all the tournament information and the leader board

Extensions:

> 2: selecting a tournament does not work.
> 1. The system will show a page with that the tournament is currently not available to view.
> 2. End case.

Use Case: Show player match history (FR-10)

Actor: User
Preconditions: The user is logged in.
Main Success Scenario:

1. The user wants to see his player information
2. The system will show the page with all his information.
3. The user wants to see the history of all his matches.
4. The system will show a page with every game the user played in.

Extensions:

> 4: The user has no matches played yet.
> 1. The system will show a message that the user has no match history.
> 2. End case.

Use Case: The user makes a request to challenge another player (FR-11)

Actor: User

Preconditions: The user is logged in.

Main Success Scenario:

1. The user wants to challenge a player for a match.
2. The system will show the page where he can request someone for a match.
3. The user selects a player.
4. The user sends the request.
5. The system will show a message successfully send and it sends the request to the challenged player.

Extensions:

4: Challenged user reject the request.
   1. The system show a message to the logged-in user with that his request has been rejected.
   2. End case.

Use Case: All matches are played (FR-12)

Actor: Staff user

Preconditions: The staff user is logged in.

Main Success Scenario:

1. The staff user has registered all matches
2. The system will check if players have the same points.
3. The system will show a message that players have the same points.
4. The user who scored best against the highest players on the leader board will be placed higher.
5. The system will register the final leader board.

Extensions:

2: There are no players with the same points
   1. The system will register the final leader board.
   2. End case.

GUI

On this page you can add a tournament, to begin with you can write a short description of what the tournament is about. After that, you need to say where the tournament takes place and also a date on when it starts and ends.

Furthermore, you can add which type of sport the tournament is about and what tournament system type it is.

Figure 1: Add tournament page

This is the page where the staff of a sports association can generate a schedule for the selected tournament. You can, first of all, search for which tournament you want to generate a schedule for. Next, you can select the tournament and click the button "Generate Schedule", which will automatically generate the schedule for that selected tournament. Finally, all the matches will be shown in the list titled "Generated matches".
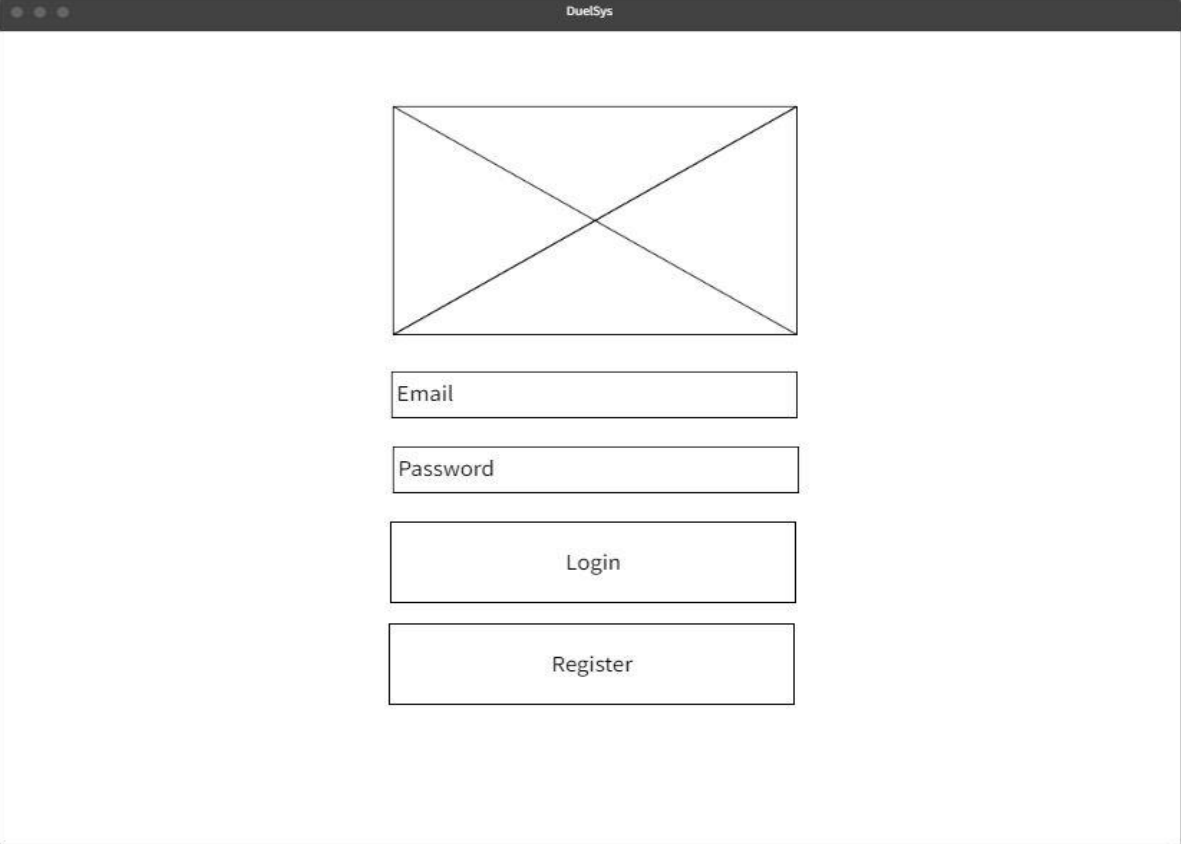
Figure 2: Generate tournament page

Website wireframe

With this page, a player or staff member can log in or if you don't yet have an account, register to access the website. On this page, you can fill in your email and password to login into your account.

Figure 3: Login page

On this page, you can view the available tournaments that are open to join at the time.
To join, you have to click the button in the column "join".

Join Tournament

Description	Start_date	End_date	Location	Sport	Tournament Type	Join
1vs1	12-05-2022	19-05-2022	Eindhoven	Badminton	Round-Robin	Button
2vs2	14-05-2022	20-05-2022	Eindhoven	Badminton	Round-Robin	Button
2vs2	19-05-2022	23-05-2022	Eindhoven	Badminton	Round-Robin	Button

Figure 4: Tournaments view page

Within this page, you can register as a player to use the website. You have to fill in your first name, last name, email, and password. After that, you can click on register and you will be redirected to the login page.
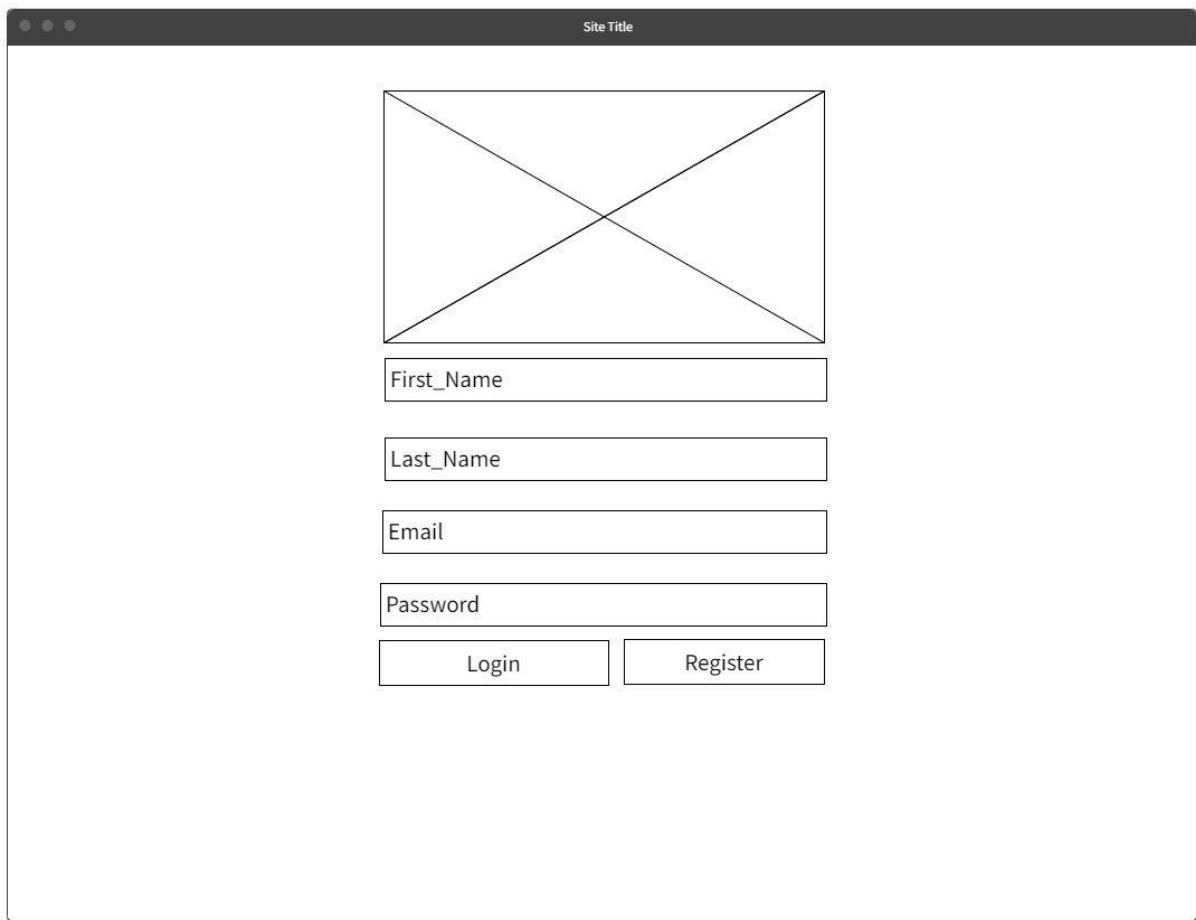

First_Name

Last_Name

Email

Password

Login   Register

Figure 5: Register page