

TalTech

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Powerlifting Competition Application

Web applications with C# project proposal

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Author's declaration of originality

I hereby certify that I am the sole author of this thesis. All the used materials, references to the literature and the work of others have been referred to. This thesis has not been presented for examination anywhere else.

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Introduction

Powerlifting is a sport that consists of three main exercises: squat, bench press, and deadlift. The goal is to lift the heaviest weights possible in each exercise.

However, there are many different powerlifting federations and rule sets, which have their own ways of organizing and registering for competitions. This makes it hard for powerlifters to find and join events that match their preferences and abilities. They often have to spend a lot of time and effort researching and visiting different websites to sign up for competitions. Moreover, hobbyists who want to host a competition in their area and promote it do not have an easy and effective way to do so.

A potential solution to this problem is to create an application that brings all the different federations and rule sets together on one platform. This would allow powerlifters to easily find, register, and create competitions in their area. It would also simplify and streamline the process of competing, and motivate more people to join the sport.

By making competitions more accessible and convenient, the application would help popularize the sport of powerlifting, increase the number and diversity of events and participants, and create a sense of community among powerlifters around the world.

1. Scope of work

Scope of work will be divided into 2 different categories: critical features, which are features that are going to have to be implemented for an minimum viable product (MVP); extra features, which are features that are good to have, but not necessary for an MVP to function.

1.1. Critical features

- Users can login.
- Users can see their created and registered competitions.
- Users can register to competitions and cancel their registration.
- Users can select their name, gender, level, age group and weight category for a competition during registration.
- Users can see the list of competitors for a competition.
- Competitor list is separated by gender, age group and weight category.
- Users can create competitions.
- Users can select the rule set and federation, place, date/s for their competition.

1.2. Extra features

- Users can customize their events after creation.
- Users can create custom rule sets.
- Users can see the results of competitions.
- Users can select the level of their competition (casual, professional, semi-professional, practice, hobby etc).
- Users can see events that they have participated in the past.
- Users can see statistics of their competitions (how many registered, what were the records, level of average lifter).
- Users can see statistics of events that they have participated in.

2. ERD schema

The entity relationship diagram of the database for the application looks as the following.

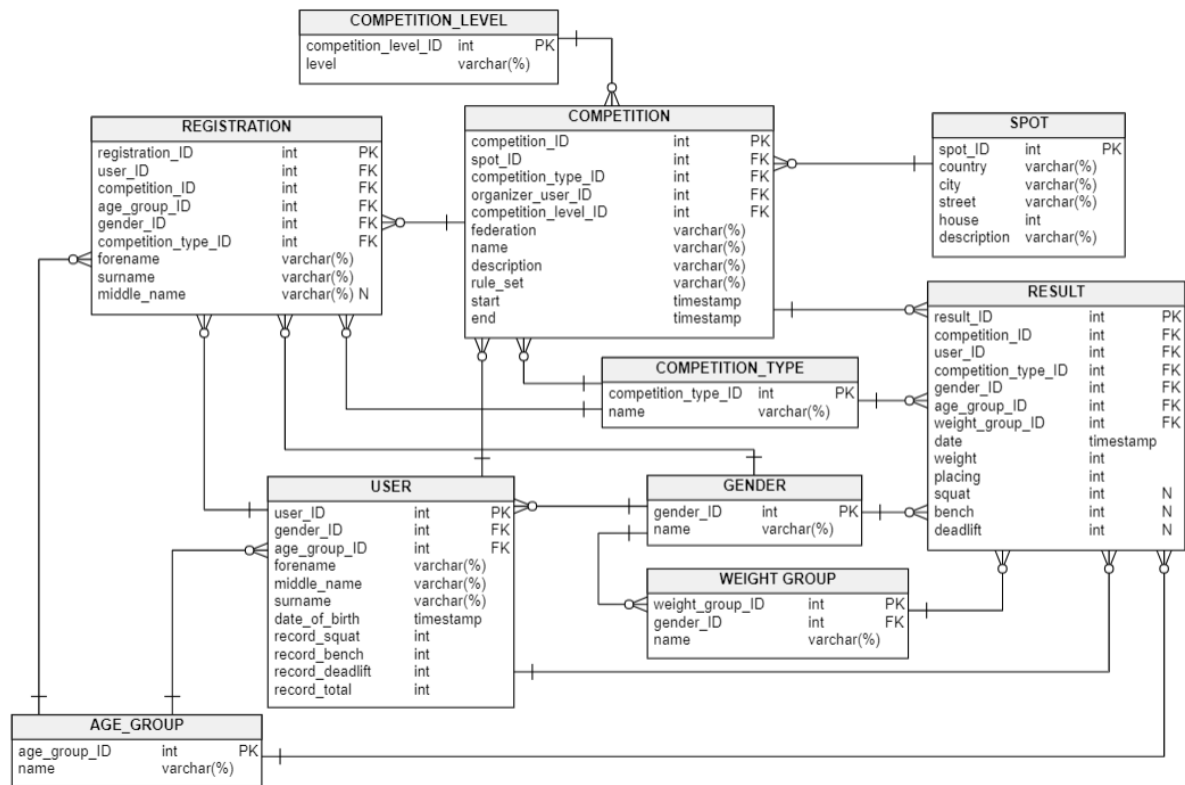


Figure 1. Entity relationship diagram (ERD)

3. Initial client view sketches

The initial login screen would look like this.

A hand-drawn sketch of a mobile application login screen. At the top, there is a browser-like header with navigation icons (back, forward, refresh), a bookmark icon, a search bar containing 'powerliftingApp.com', and a menu icon. Below the header, the word 'Login' is displayed. The main form contains two input fields: 'Username' with the text 'marek123' and 'Password' with masked characters '*****'. To the right of the password field is a blue 'Login' button. Below the password field, there is a blue link 'forgot password?'. At the bottom, there is a text prompt 'Don't have an account?' followed by a blue link 'Create account'.

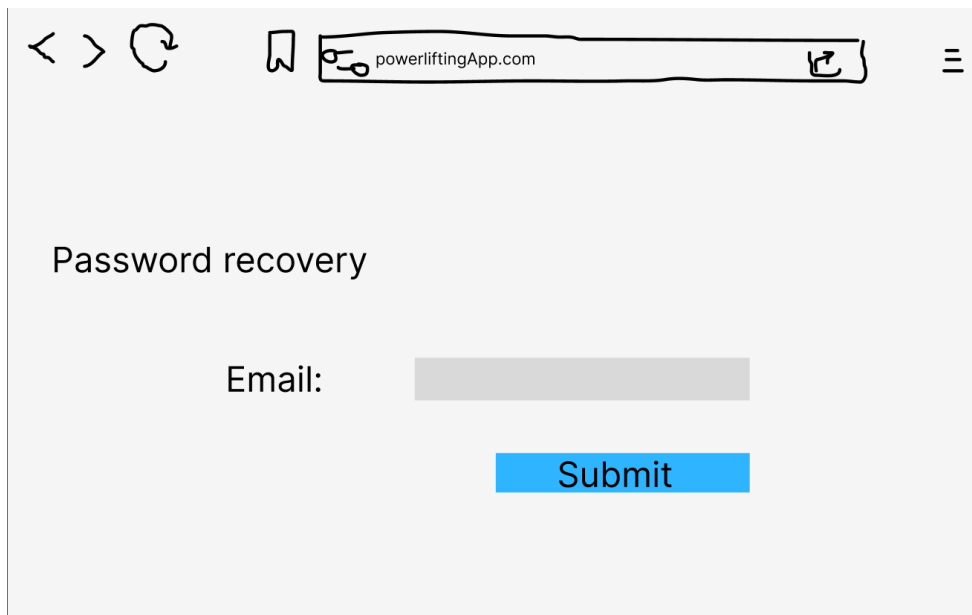
Figure 2. The login page view

If the client doesn't have an account, they can create one by pressing the link "Create account" and then entering their details in the following page.

A hand-drawn sketch of a mobile application account creation screen. At the top, there is a browser-like header with navigation icons (back, forward, refresh), a bookmark icon, a search bar containing 'powerliftingApp.com', and a menu icon. Below the header, the text 'Create account' is displayed. The main form contains a list of labels on the left and corresponding input fields on the right: 'Email:', 'Username:', 'Forename:', 'Middle name:', 'Surname:', 'Gender:', and 'Date of birth:'. Each label has a corresponding gray input field. At the bottom right, there is a blue 'Create account' button.

Figure 3. Account creation page view

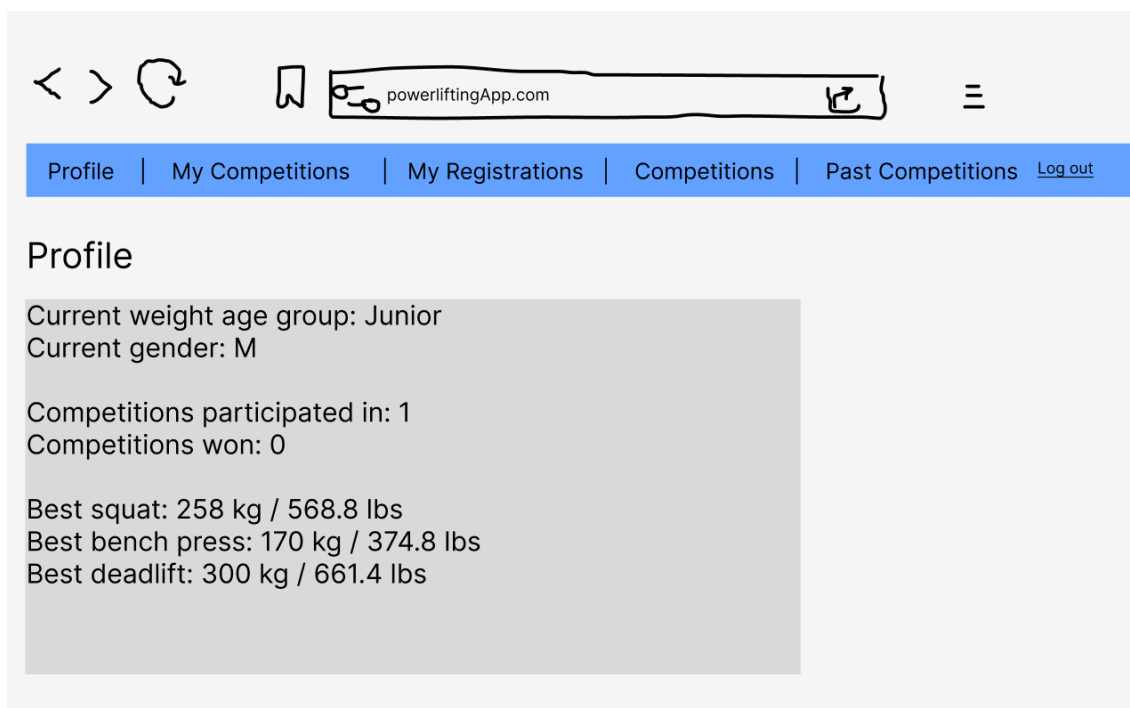
If the client has an account, but they have forgotten their password, then they can recover it by pressing the link "forgot password?" and then entering their email in the following page.



The screenshot shows a web browser interface for a password recovery page. The browser's address bar displays "powerliftingApp.com". The page title is "Password recovery". Below the title, there is a label "Email:" followed by a text input field. A blue "Submit" button is positioned below the input field.

Figure 4. Password recovery page view

After successfully signing in the client is greeted by their profile page, which shows some statistics about them and the navigation bar.



The screenshot shows a web browser interface for a user profile page. The browser's address bar displays "powerliftingApp.com". A blue navigation bar at the top contains the following links: "Profile", "My Competitions", "My Registrations", "Competitions", "Past Competitions", and "Log out". Below the navigation bar, the page title is "Profile". The profile information is displayed in a grey box:

- Current weight age group: Junior
- Current gender: M
- Competitions participated in: 1
- Competitions won: 0
- Best squat: 258 kg / 568.8 lbs
- Best bench press: 170 kg / 374.8 lbs
- Best deadlift: 300 kg / 661.4 lbs

Figure 5. Profile page

When pressing on the link "My Competitions" the app will show the competitions created by the client and offer the chance to view the details about the competition, edit some of the details, delete the competition or enter the results or view entered results.

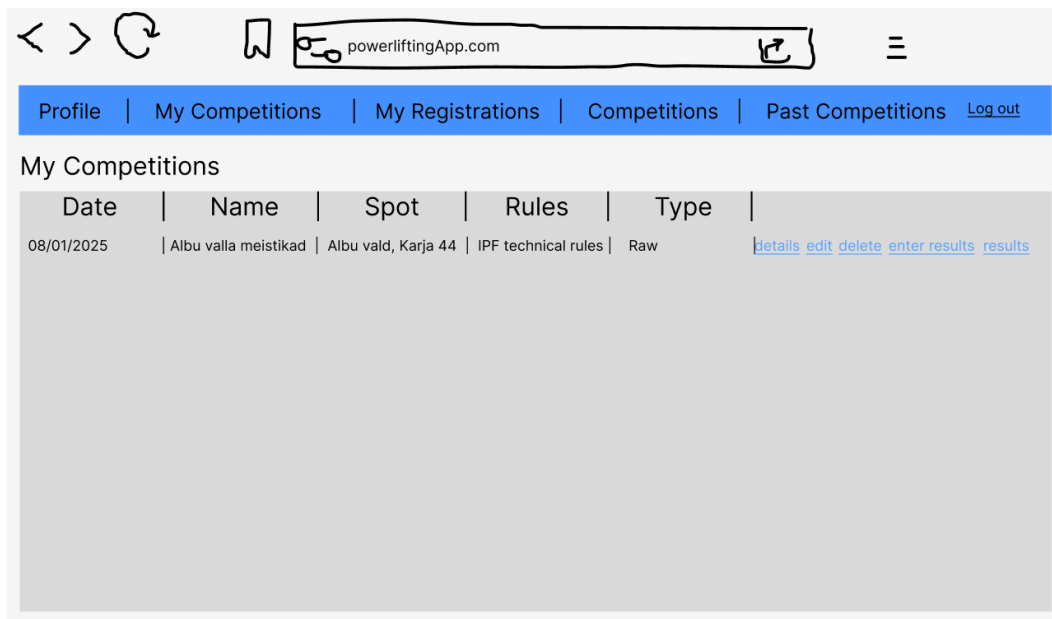


Figure 6. My competitions page view

When pressing the link "My Registrations" the app will show the competitions the user has registered to and offer the chance to view details about the competition, edit the registration or delete the registration.

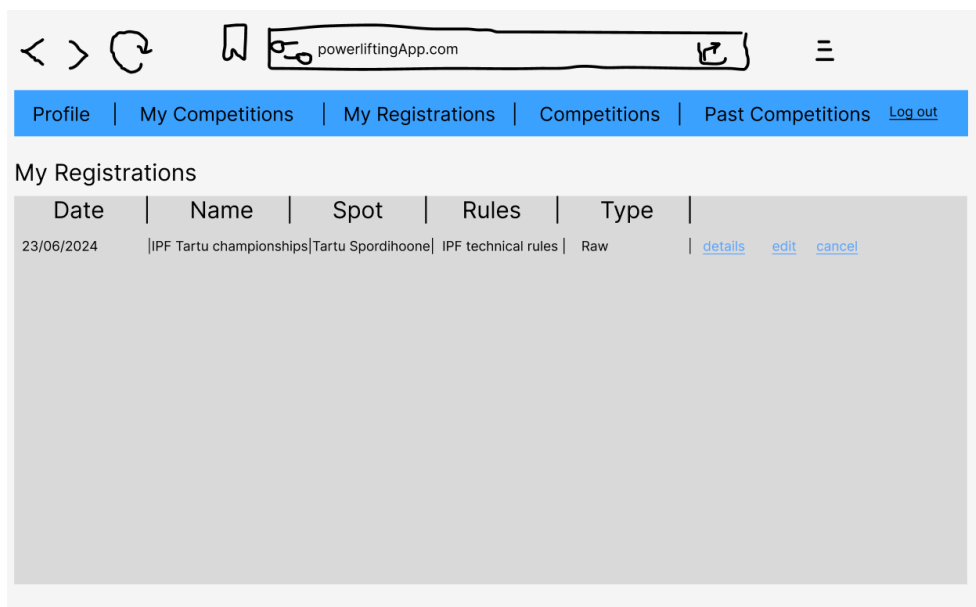


Figure 7. My registrations page view

When pressing the link "Competitions" the app will show the competitions that are yet to happen and the user can register to. The user can register to the competitions through pressing the link "register". The user can also search for the competition in the search bar or create a new competition by pressing the link "Create".

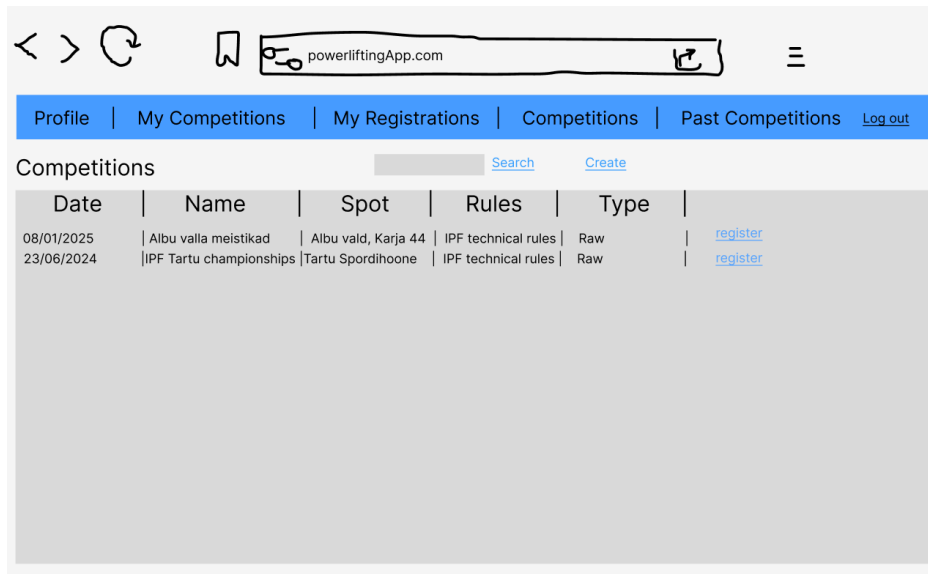


Figure 8. Competitions page view

When pressing the link "Create", the competition creation page will open, which will look as following.

Create competition

Name:

Type: ▼

Spot: ▼

Level: ▼

Federation:

Description:

Rule set:

Start:

End:

[Create competition](#)

Figure 9. Competition creation page view

When pressing the link "Past Competitions" the app will show the user the past competitions the user has participated in and show their placing, weight with weight category, age group and their lifts.

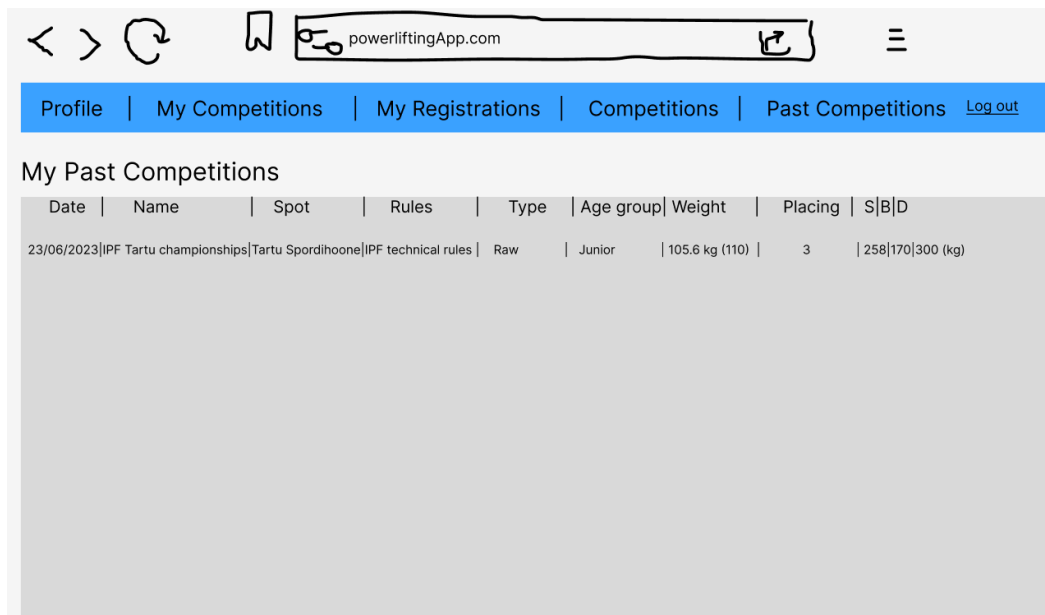


Figure 10. Past competitions page view

References

There are no sources in the current document.