Exercise on Associations

Download the startproject and unzip it. Rename this project and copy it to a github-folder.

1. Create an **enum** *Gender* with the possible values MAN WOMAN and X
2. Create a class *Time* with two attributes:
   1. private int minutes, seconds;
   2. make this class "embeddable" so that it can be embedded in the entity Jogger (see class diagram below)
3. Then create the entities with attributes according to the following class diagram

**General:**

* + Program exactly what is in the class diagram. You will get an SQL script to fill the corresponding tables. So if you rename classes/attributes, the script will not work and you cannot create the rest.
  + Make your code readable, maintainable and efficient. So add methods in the entities where it is logically required to
    - to avoid 'bloated controllers
    - to have as little code as possible in html pages.

You choose the names of the html pages yourself, but you stick to the prefix we have given you

Afbeelding met tekst, schermopname, diagram, Lettertype

Automatisch gegenereerde beschrijving

Make sure you create the no-arg constructor and all getters and setters for each entity.

Make at least 5 unit tests which test 5 different methods of your choice.

1. If you have implemented the class diagram **exactly** as required and you run your application, the corresponding tables should exist in your database (check this in your database tab).
2. Now run the SQL script, *jogger.sql* (on Canvas) to fill the corresponding tables. Check this in your database tab.
3. The statement "spring.jpa.hibernate.ddl-auto=create-drop" in your properties file will cause the database to be deleted after closing your program. So you will have to refill the database with the script “jogger.sql” every time you run your program.

In index.html, create a link overview'.

Afbeelding met tekst, Lettertype, ontwerp

Automatisch gegenereerde beschrijving

This link takes you via the MainController to *overview.html*.

This page contains an overview of all clubs together with the joggers of that club and the events that the club organises.

Afbeelding met tekst

Automatisch gegenereerde beschrijving

If you click on the hyperlink, you simply return to the page *index. html.*

When you click on the link 'view joggers' on the home-page you get to the page jogger.html that shows you a list of all joggers. In this list you will also see the club to which the jogger is affiliated.

Afbeelding met tekst, schermopname, Lettertype, nummer

Automatisch gegenereerde beschrijving

After clicking on the delete-hyperlink, the jogger will be deleted and the list of joggers will be shown again (without the deleted jogger).

Afbeelding met tekst, schermopname, Lettertype

Automatisch gegenereerde beschrijving

(in the overview-page the jogger has also disappeared…)

The hyperlink at the bottom takes you back to the *index.html* home page.

In index.html, create a second link 'view events'. When you click on the link 'view events' you will get to the page event.html which shows you a list of all events organised by the club.

Afbeelding met tekst, schermopname, Lettertype, lijn

Automatisch gegenereerde beschrijving

When clicking on the edit-hyperlink, the user can change the event-data. The page shows all current data of the event (the related club of the event is checked):

Afbeelding met tekst, schermopname, Lettertype, nummer

Automatisch gegenereerde beschrijving

After changing the data (e.g. change the year and the club of the event), the list of events will be shown again with the changes:

Afbeelding met tekst, schermopname, Lettertype, lijn

Automatisch gegenereerde beschrijving

And the overview should also show the change of club:

Afbeelding met tekst, schermopname, Lettertype

Automatisch gegenereerde beschrijving

If the user enters a non-valid year value (not an Integer), you should “handle this unchecked exception” by showing an error-page. e.g.:

Afbeelding met tekst, Lettertype, schermopname, wit

Automatisch gegenereerde beschrijving

The hyperlink at the bottom takes you back to the home page *index. html*.