Technical description of the app CIS Sports

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General Notice

The application is a native Android application, developed in Android studio. The programming language used is Java. For important changes in the code (which will be described further down), installation of [Android Studio](#) will be necessary.

Before moving on we recommend you to watch our demo video of how the app works:
https://drive.google.com/file/d/1IpSQjsHaBJmKrv94kAhCRouL7M6VtEnT/view?usp=sharing

The application

The core of the application is the main menu. From there you can reach four tabs; *Your Sports, Upcoming Events, Sports and Committees and Challenges*. These are further described below.

Your Sports

Your Sports is segmented into three views: Quiz, Recommended sports and Favorited sports.
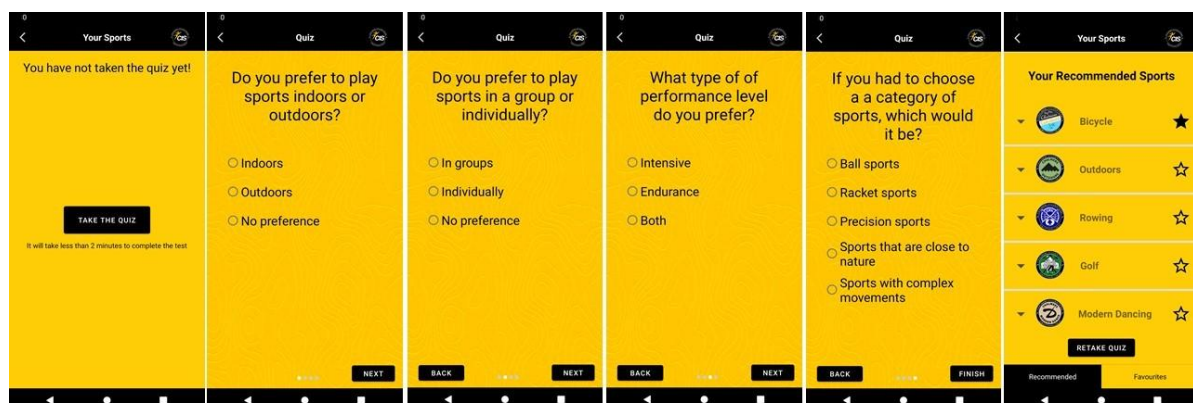
The Quiz is currently very hard-coded which means that it is hard to edit it without prior programming knowledge. If the quiz needs to be changed, the Wizard.java and WizardAdapter.java are the two important classes. However if you just want to add a new

sport to the quiz, it will be fine as long as it has the tags that already exist in the app. These are:
GROUP, INDIVIDUAL, GROUP_AND_INDIVIDUAL, OUTDOOR, INDOOR, INTENSE, ENDURANCE, BALLGAME, RACKET_SPORT, PRECISION, NATURE, COMPLEX_MOVEMENTS. To see which sports already have which tag see **Sports Tags** further down.

Recommended sports are the results of the quiz, this will always show five of the top sports from the answers of the quiz.

Favorite sports shows which sports have been marked as favorites.

Both Recommended and Favorite saves the data between usages locally on the Android device.
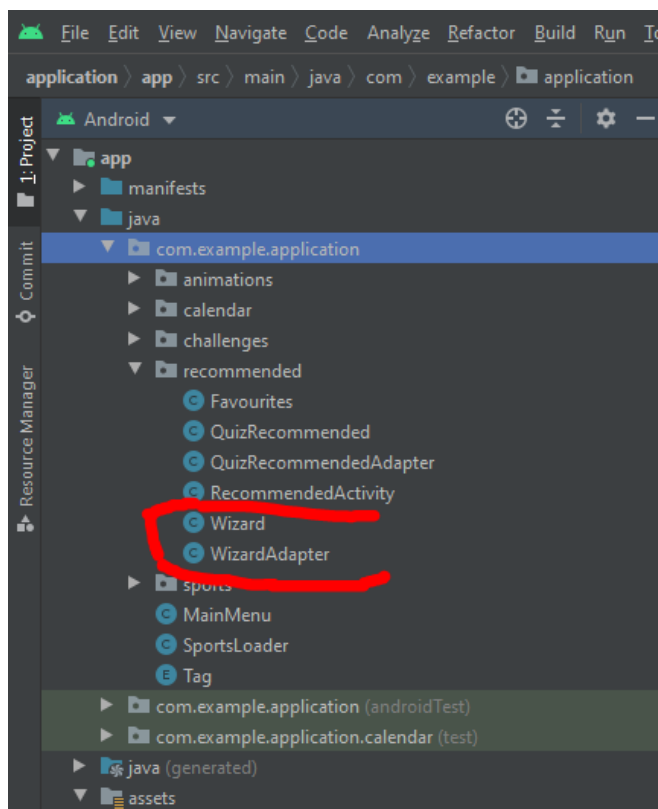

Fig 1: Location of Wizard.java and WizardAdapter.java

Upcoming Events

Upcoming events show events, just like a calendar. This is linked with CIS Google calender where they add their events. To add a new event just add a new event to the CIS Google calender and it should be added here automatically. Upcoming events are divided into two views, Flow and Calendar.

An important part of adding a new event is from which account it's added. We use the email address from the account that added the event to be able to filter the events. So make sure the events are added from the correct email! (Should be the designated CIS email).

Otherwise what's needed for the events are a title, description and optionally a location.

Warning
We currently use a free version of the Google API that allows us to get the information this way. This can only handle 1 000 000 requests per day. A new request is used whenever a user opens this view. So a problem that can occur is that the app runs out of requests and can't fetch the information.

For contact with the API owner: oscarjohansson999@gmail.com
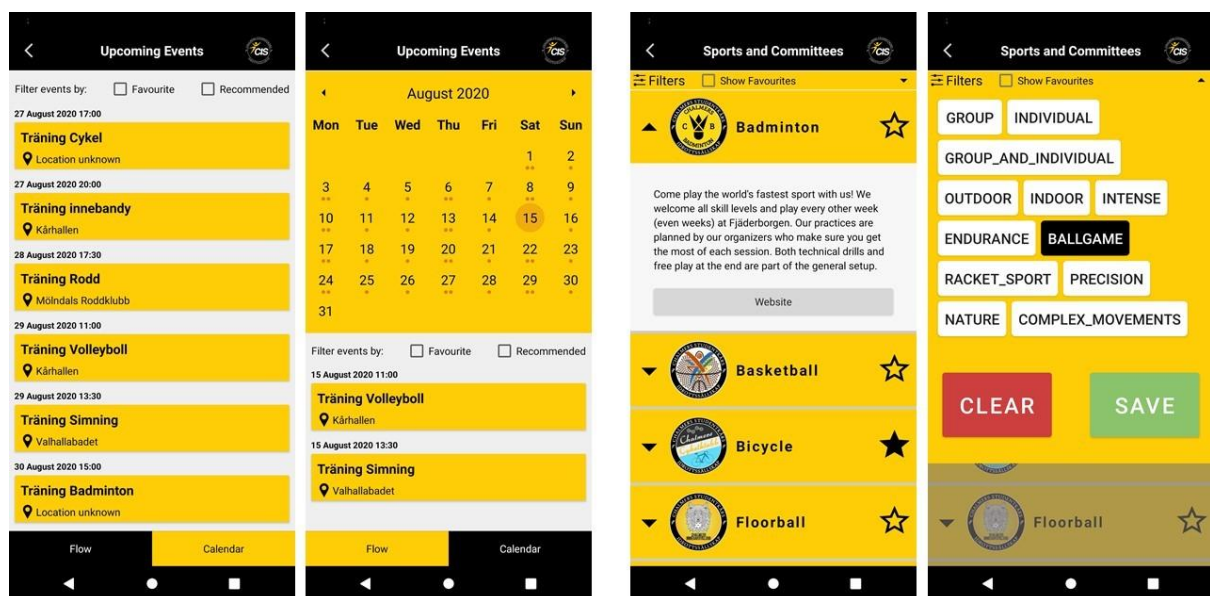
Sports and Committees

This tab serves as a hub for all the different sports and committees that are under CIS. On this page the user can browse through the different sports. By clicking on a card additional information as well as a link to the sports Facebook page will be shown. It is also possible to filter and mark sports as favourites, which can then be seen by clicking the favourites-checkbox.

To add a new sport to the application, you need to change the sports.json file. This is written in JSON syntax, if you are unsure how to add a new sport just look at the other sports and write it like they are written.

To add a new sport six fields have to be filled in. These are: name, logo, description, link, email, and tags.

- **Name**: This is the name of the sport.
- **Logo**: This is the image logo of the sport. These are to be added in the drawable folder. It's fine to just add a .png or a .jpg or any other image file format here as it should be able to find it. If it doesn't work use .png as that's the file type for the other logos.
- **Description**: This is the description of the sport. Just add the whole text inside " " and it should be fine.
- **Link**: This is the link to the sports website. All sports currently have a link to their facebook page but can be changed to another if necessary.
- **Email**: The link to the sports email. This is used to figure out which sport belongs to which in the upcoming events, as we filter based on which mail the event is registered by. Therefore if this is written wrong, filtration may not work.
- **Tags**: The sports tags. Written as an array. Just keep the same syntax with the wanted tags and it should be fine.
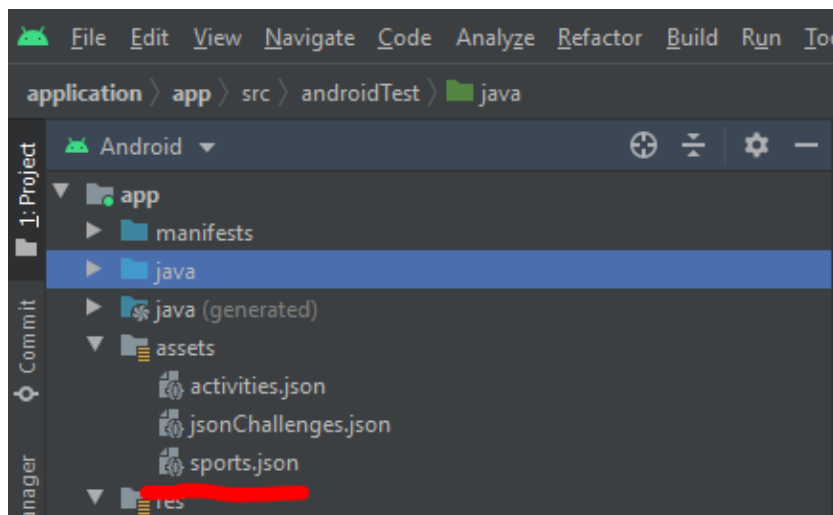
Just remember that syntax is important!

Fig 2: The location of sports.json (in the assets folder)

Challenges

Challenges are implemented to create engagement and willingness to return to the application. This tab is divided into CIS Misssons and Daily Challenges. The cards visible in CIS Missions contain information retrieved from a Google calendar, just like in *Upcoming Events.* Although we recommend that you use separate calendars for these functionalities. By clicking on a card more information will be shown. Daily Challenges on the other hand stores its data in a Json-file (jsonChallenges.json), which makes it less dynamic since changes here have to be done in the code. At the moment there are a total of ten Daily Challenges and each day three of these are randomly selected and shown in the app. For both the CIS Missions and the Daily Challenges it is possible to mark them as completed by ticking a box on the card. This will move the challenge to the completed-tab. This could easily be undone by unticking the box again.

For the location of jsonChallenges.json see Fig 2 (Just above sports.json)
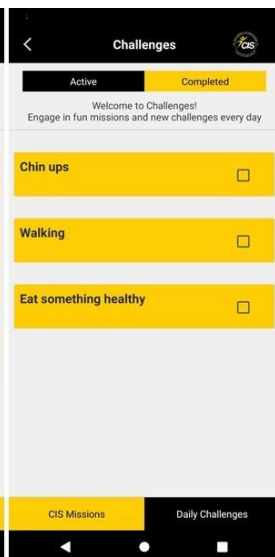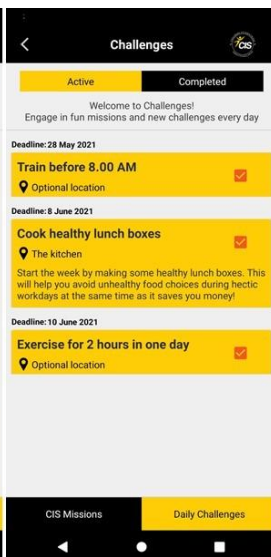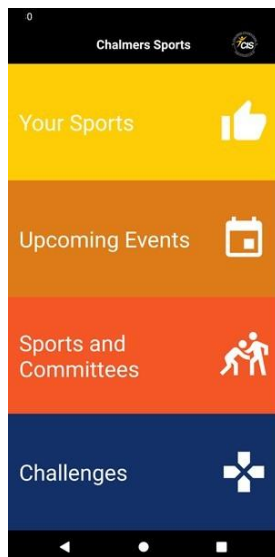
Sports Tags

Here is the list on which sports have which tag. The tags can be found in Tags.java and the summary for each sport can be found in sports.json

Badminton
1. INDOOR
2. GROUP_AND_INDIVIDUAL
3. INTENSE
4. RACKET_SPORT

Basketball
1. INDOOR
2. GROUP
3. INTENSE
4. BALLGAME

Bicycle
1. OUTDOOR
2. INDIVIDUAL
3. ENDURANCE
4. NATURE

Floorball
1. INDOOR
2. GROUP
3. INTENSE
4. BALLGAME

Football
1. OUTDOOR
2. GROUP
3. INTENSE
4. BALLGAME

Golf
1. OUTDOOR
2. INDIVIDUAL
3. ENDURANCE
4. PRECISION

Modern dancing
1. INDOOR
2. INDIVIDUAL
3. ENDURANCE
4. COMPLEX_MOVEMENTS

Outdoors
1. OUTDOOR
2. GROUP
3. ENDURANCE
4. NATURE

Padel
1. INDOOR
2. GROUP_AND_INDIVIDUAL
3. INTENSE
4. RACKET_SPORT

Rowing
1. OUTDOOR
2. GROUP_AND_INDIVIDUAL
3. ENDURANCE
4. NATURE

Squash
1. INDOOR
2. GROUP_AND_INDIVIDUAL
3. INTENSE
4. RACKET_SPORT

Swimming
1. INDOOR
2. INDIVIDUAL
3. INTENSE
4. COMPLEX_MOVEMENTS

Tennis
1. INDOOR
2. GROUP_AND_INDIVIDUAL
3. INTENSE
4. RACKET_SPORT

Ultimate Frisbee
1. OUTDOOR
2. GROUP
3. INTENSE
4. PRECISION

Volleyball
1. INDOOR
2. GROUP
3. INTENSE
4. BALLGAME

Yoga
1. INDOOR
2. GROUP
3. ENDURANCE.
4. COMPLEX_MOVEMENTS

Installing the application

To download and install the application on your device you have to ensure that your Android phone is able to install third-party apps. This can be done in the "Security" tab in the settings menu. Mark the alternative "Unknown source installations" or "Install unknown apps" and select the browser you would like to use when downloading the APK-file.

Updating the application

If you want to update the application you need to build a new APK of the changed code. To do that follow these instructions:

1. To compile an APK go into Android studio and select Build → Build Bundle(s) / APK(s) → Build APK(s)
2. You should get a prompt on where this APK is created on your computer.
3. You only need the APK file, not the manifest, on your Android phone for it to work.
4. Then follow the steps **Installing the application** above to install it.