

Mobile App: FMS (Finnish Municipality Statistics)

Team Members:

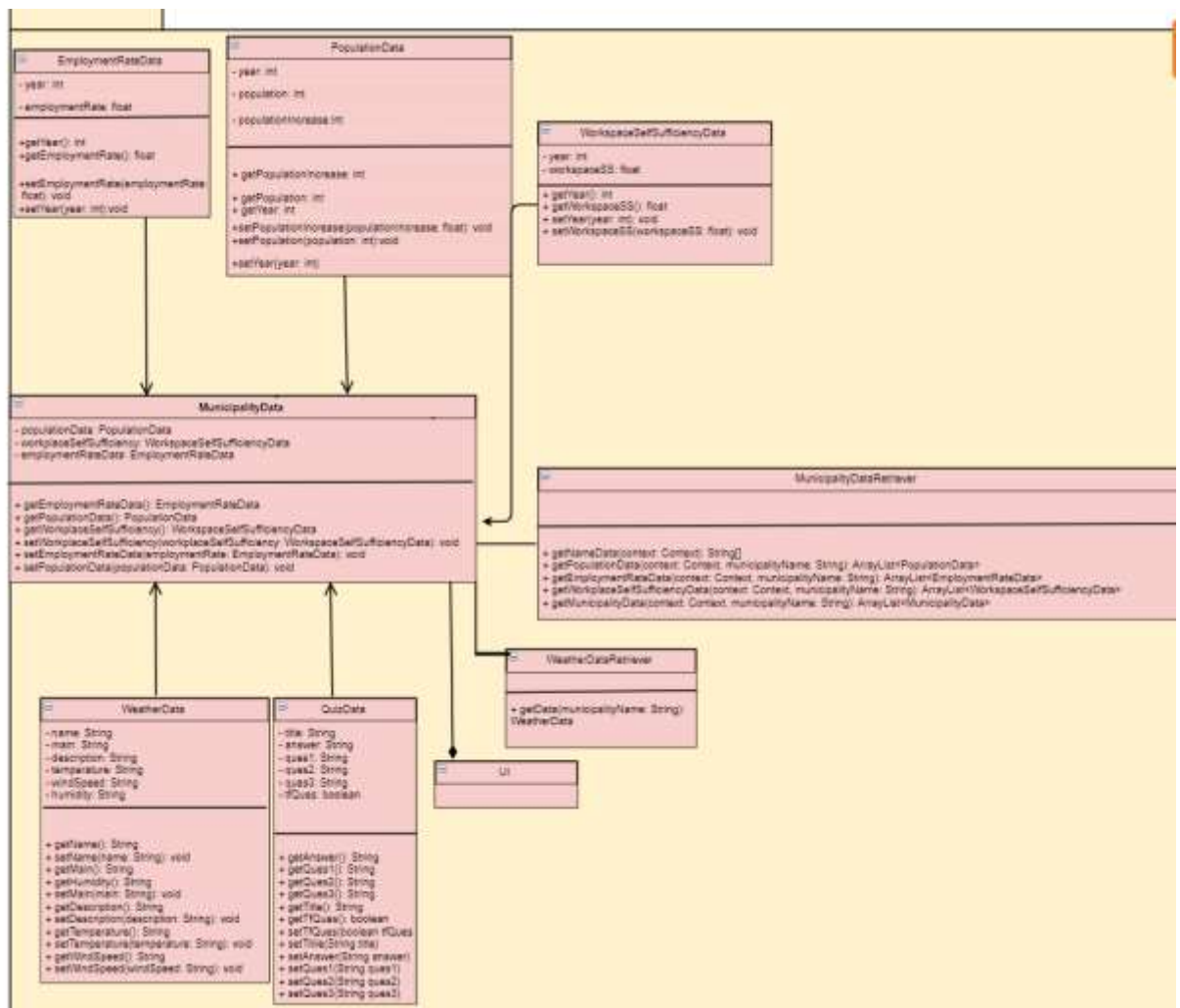
Hung Nguyen: Data Coding, Video.

Kieu Son: User Interface, Documentation.

General description:

Our project app topic is about fetching data of municipalities in Finland. It shows the weather conditions as well as the population relating statistics from 1990 to 2022. It also can compare with another city data. It also contains Quiz section which is used to test the user knowledge about Finnish cities. For example, test user knowledge about the population of that specific country in 1997. The final part is that it also describes the graph of different years about category data changes in a city.

Class Diagram:



Here is the link if you want to look more clearly:

<https://gitmind.com/app/docs/f0luryce>

Features:

1. Recycler View:

We use recycler view to display the data of a city in several years.

Workplace Self-sufficiency	66,3%
Employment Rate	76,1%
Year	2021
Population	16467
Population Increase	74

2. Images:

The logo:



The search symbol:



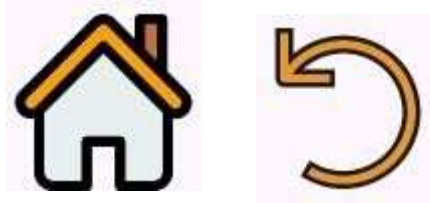
Different weather condition symbols:



The images when you answer wrongly or correctly in the quiz fragment:



Home and Reset buttons:



3. More than one data source:

Statistics Finland (Tilastokeskus):

https://pxdata.stat.fi/PxWeb/pxweb/en/StatFin/StatFin_synt/statfin_synt_pxt_12dy.px/

https://pxdata.stat.fi/PxWeb/pxweb/en/StatFin/StatFin_tyokay/statfin_tyokay_pxt_125s.px/

https://pxdata.stat.fi/PxWeb/pxweb/en/StatFin/StatFin_tyokay/statfin_tyokay_pxt_115x.px/

OpenWeather: <https://openweathermap.org/api>

4. **Statistics:** Users can quickly see and select from e.g. five last municipalities they have searched.

Latest searches

Urkala
Janakkala
Akaa
Helsinki
Hammarland

5. Comparing municipalities:

You can compare two cities information about their statistical data or their weather data .



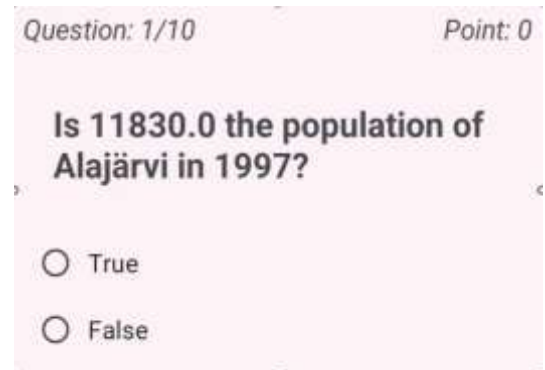
Comparing statistical data:

Akaa	Compare	Alajärvi
2022		2020
16473	Population	9419
4	Population Increase	-145
66.3%	Workplace Self-sufficiency	100.0%
76.1%	Employment Rate	67.9%

Comparing Weather data:



6. **Quiz:** The app will generate ten questions about the data.



7. **Fragment:**

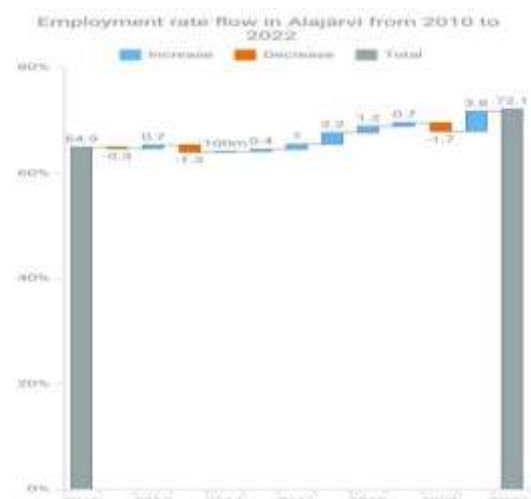
4 fragments: (Basic info, Comparison, Quiz, Data visualization)

- Basic info: show the description of Weather condition of your searched city as well as population related topic.
- Comparison: compare the information shown in the first city to another one.
- Quiz: Ask about basic questions to test your knowledge.
- Data Visualization: Showing graph.



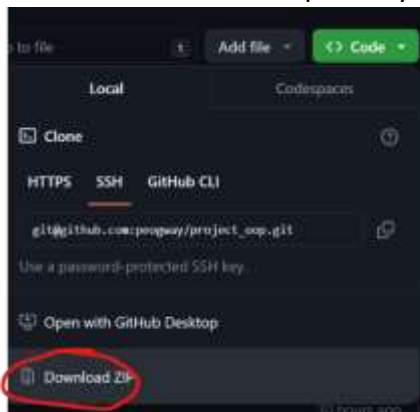
8. **Data visualization:**

Show the graph of the Employment rate flow in your searched city from 2010 to 2022.

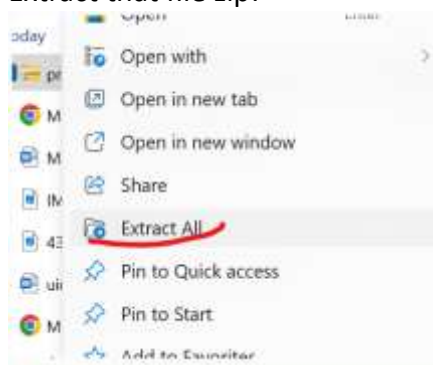


Installation/running instructions:

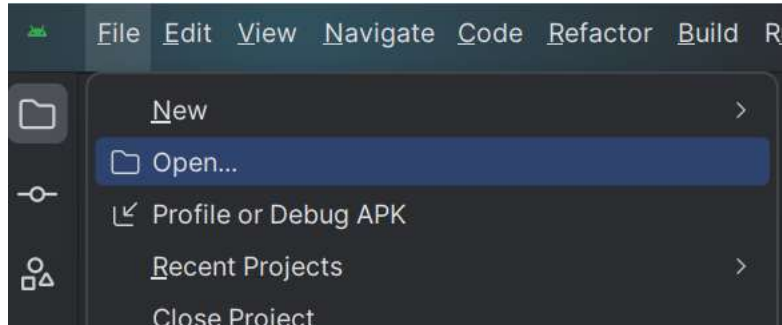
- Download the whole repository as a zip file:



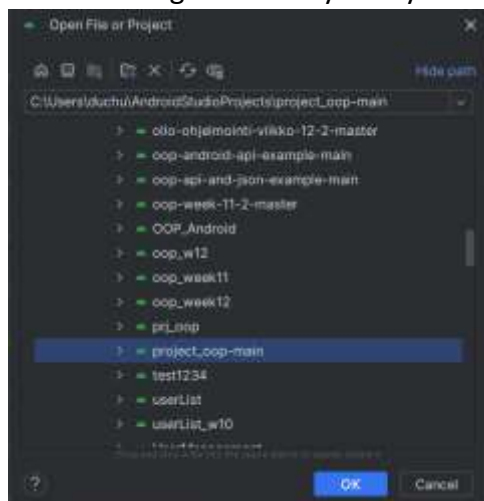
- Extract that file zip:



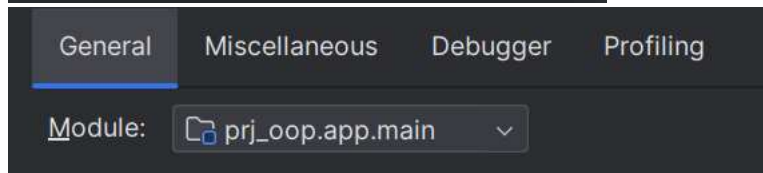
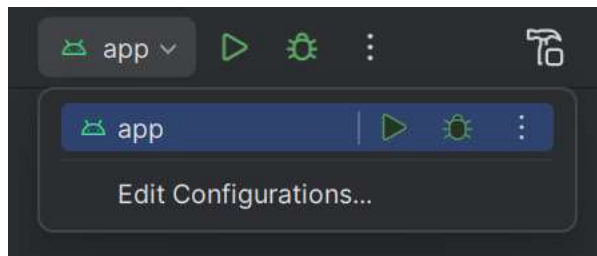
- Open Android Studio and choose Open in the left corner:



- Locate the right directory that you have just extracted and choose:



- Make sure you have correct configurations for running the app:



- Now you just need to click that play button and wait for the app installing successfully.

