README as pdf file (UML class diagram below)

Installation instructions:

1. Open Android Studio
2. Import the project to the Android Studio
3. Run the project
4. Test the project
5. Done!

General description of the work:

The app serves as an informative tool about Finland. It includes following features, such as: comparing municipalities and showing information about the municipalities, such as work sufficiency, population data, weather, etc. The app also includes a quiz in which general questions are asked about Finland. There's also gallery tab to look at some pictures of Finnish cities as well. Dark/Light mode can be changed.

Features implemented:

- Mandatory Features (10 points)
- App is coded according to object-oriented paradigm
- Code, comments and related documentation are in English
- App works in Android
- App covers all the mandatory functionality
- Documentation
- Data fetched from Statistics Finland API
- Additional Features:
1. Quiz (4 points)
2. Comparing municipalities (3 points)
3. RecyclerView (3 points)
4. Data is fetched from two APIs (3 points, (StatisticsFinland, OpenWeather))
5. Weather icons are displayed. (2 points)
6. Fragments are used. (4 points)
7. CUSTOM FEATURE:
    a. Dark mode and Gallery (1 point) Total desired points = 30

Distribution of work:

- Thet Htar Zin (UI, coding, initiating the initial project submission)
- Bruno Jasvin (UML, coding, README file)

Class diagram: the initial class diagram was used with the updated version, NOTE: in the initial diagram, political data is presented, which was not implemented in the final

version of work

Project
28/3/24   21:32

CityData
- cityName : str
- populationData : PopulationData
- politicalData : PoliticalData
- weatherData : WeatherData
- workplaceSelfSufficieny : str
- employmentRate : str

+ getCityName () : str
+ getPopulationData () : PopulationData
+ getPoliticalData () : PoliticalData
+ getWeatherData () : WeatherData
+ getWorkplaceSelfSufficieny : str
+ getEmploymentRate () : str
+ setCityName (name : str)
+ setPopulationData (PopulationData)
+ setPoliticalData (PoliticalData)
+ setWeatherData (WeatherData)
+ setWorkplaceSelfSufficieny () : str
+ setEmploymentRate () : str

PopulationData
- totalPopulation : int
- populationChange : str

+ getTotalPopulation () : str
+ setTotalPopulation () : int
+ setPopulationChange () : str

WorkSufficiency
- workSufficiency : List <str>

+ getWorkSufficiency () : List <str>
+ setWorkSufficiency () : List <str>

WeatherData
- currentWeather : str
- weatherForecast : str

+ getCurrentWeather () : str
+ setCurrentWeather () : str
+ setWeatherForecast () : str

Quiz
- questions : List
- answers : List (Boolean?)

+ addQuestion () : str
+ addAnswer () : str (Boolean?)
+ generateQuiz () : void
+ getScore () : int
+ displayQuiz : void

EmploymentRate
- employmentRate () : str
- setEmploymentRate () : str
- getEmploymentRate () : str

Gallery
helsinki.jpg
rovaniemi.jpg
turku.jpg
tampere.jpg
porvoo.jpg
savonlinna.jpg

Compare
- totalPopulation (city1) : int
- totalPopulation (city2) : int
- totalEmployment (city1) : int
- totalEmployment (city2) : int
- workSufficiency (city1) : int
- workSufficiency (city2) : int

- comparePopulation ()
- compareEmployment ()
- compareSufficiency ()

DataRetriever
- apiuri : str

+ fetchData () : CityData
+ setApiUrl () : str
+ getApiUrl () : str

UI
+ changeColormode () : void
- LightMode
- DarkMode

+ menu () : void
- discover
- quiz
- compare
- gallery