Programmer's Guide

Dieudonné Amélie

Dress Me !

University of Namur

Faculty of Computer Science Bloc 3

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What is this project?

General description:

"Dress Me" is a mobile application available on Android. The main purpose is to generate an appropriate outfit according to the current weather. It will assure you to be correctly prepared to go out.

All its functioning is described into the "User's Guide" present in the documentation. Please check it for more detailed information.

Who launched and developed it?:

The project is developed as part of the UNamur University third year course called ***"****INFOB318 Projet individuel****"***. The project idea comes from *Mr Vanhoof* from the UNamur University. It has been developed *by Dieudonné Amélie*, third-year student.

How to get the project?

Source code & Documentation:

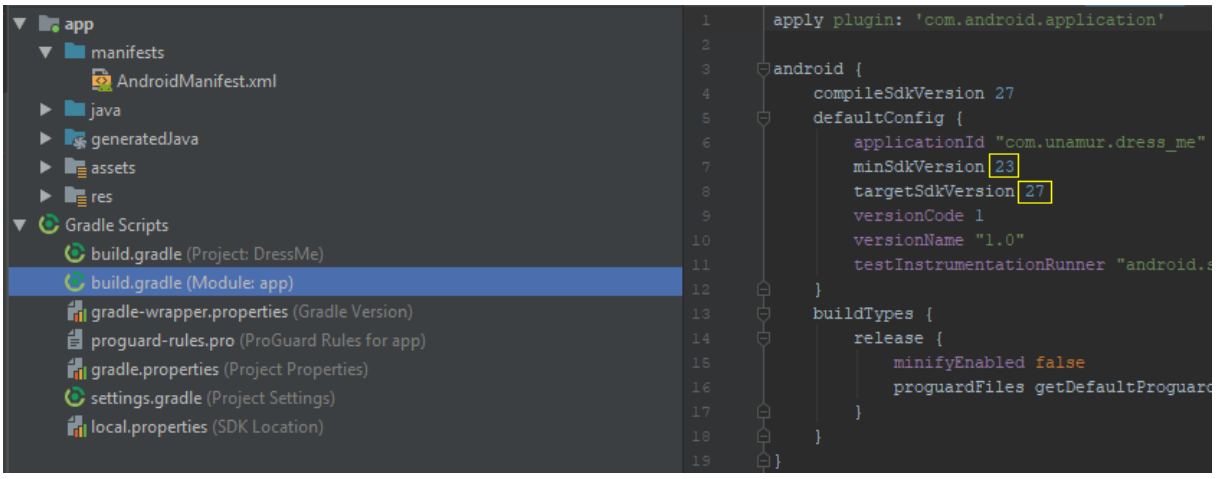
The source code of the project and the documentation, consisting of the "User's Guide" and the "Programmer's Guide", are available on **Github**.

To access the Github, you can contact me by mail:
"amelie.dieudonne@student.unamur.be"

Development environment:

The application has been developed with Android Studio. It has been programmed in 2 programming languages, Java and XML, for Android 6.0 (Marshmallow). You can change the Android version in the settings of the project on Android Studio.

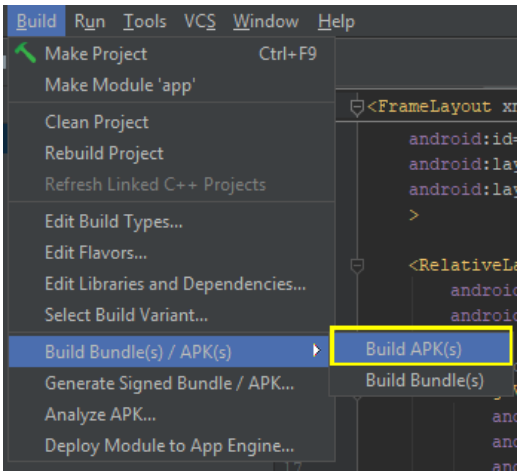
Concerning the **Sdk**, the minimum version is the 23rd and the maximum version is the 27th. You can change the versions in the "build.gradle (Module: app)" file of your project in Android Studio.



How to use the project?

How to deploy the project?:

To deploy the project, nothing simpler. Once you opened it in Android Studio, just click on "Build" then on "Build Bundle(s) / APK(s)" and then on "Build APK(s)". This will create an **APK** file of your project. You just need to download the APK on your phone and install it to use the app. You can use, for example, Google Drive to switch the APK from your computer to your phone.



How to test your application?:

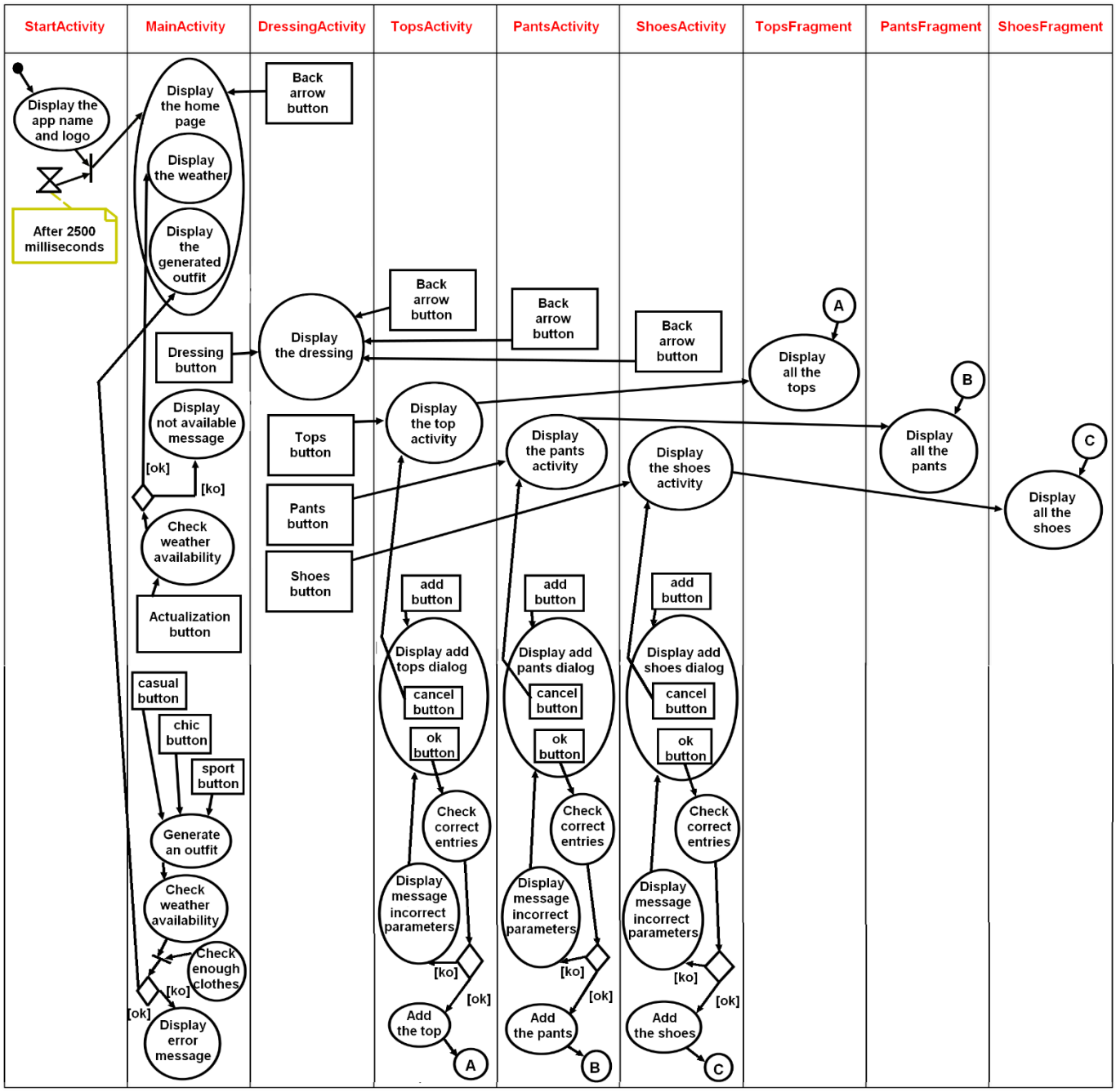
If you want to test the app on your computer before downloading in on your phone, you can use a smartphone emulator, called virtual device, directly in Android Studio.

To use it, just click on "Run" in Android Studio, you'll see your available virtual device. Choose one to launch the emulator and test your app.

What's the project architecture?

Project activity diagram:

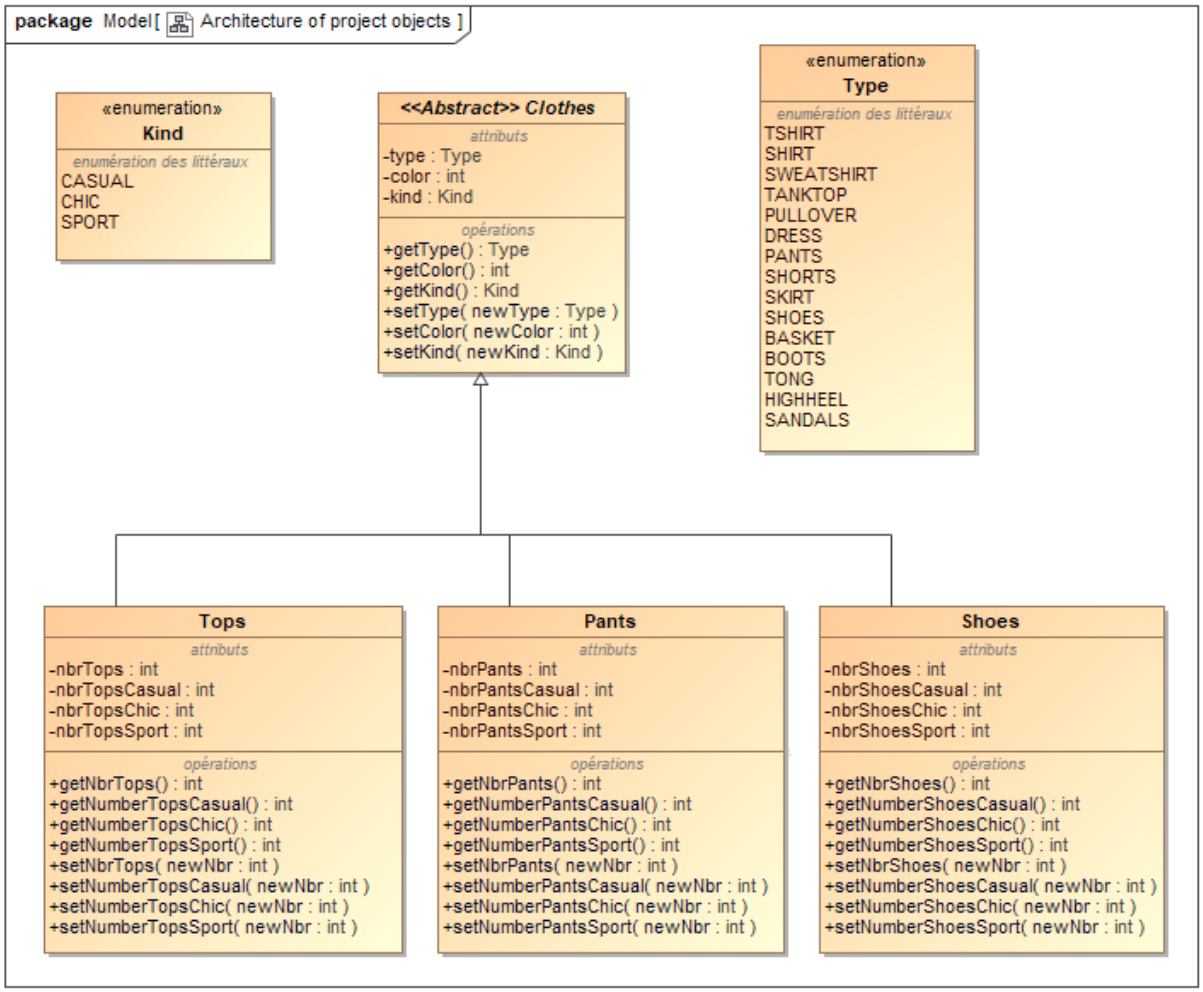
Here is an activity diagram representing the project functioning based on all its Activities:



There is no end to this diagram because the only way to close the app is to close it by quitting it. There is no closing button directly into the app.

Class diagram of the project objects architecture:

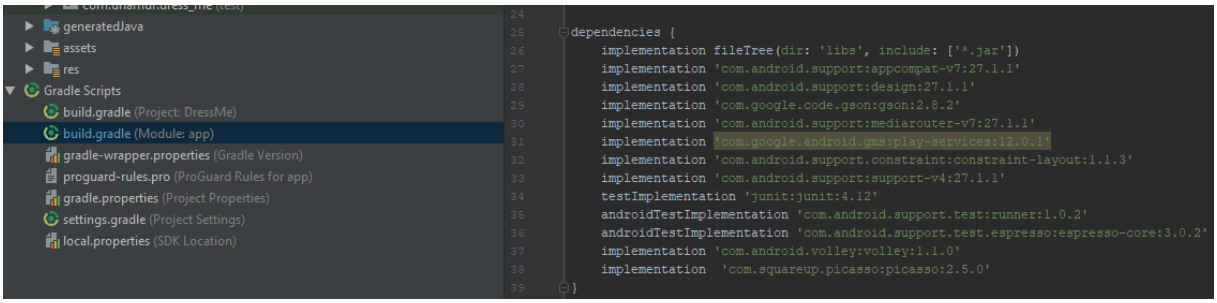
The java objects system is only used in this project to represent the 3 types clothes. To correctly understand the architecture of the project objects, here is a class diagram:



Project modules and APIs

Modules/dependencies:

On Android Studio, the dependencies are available into the "build.gradle(Module: app)" file. These dependencies are the modules used for this project:



APIs:

To get the weather back from the phone localization, the current weather "OpenWeatherMap" **API** has been used.

Here is the link to this API:

https://openweathermap.org/api

To use it, you must have the current longitude and latitude of the phone. They are retrieved by asking a permission to access the phone's current localization.

The API works by accessing a link in which the phone latitude and longitude previously retrieved are given. This implies that the phone must have an internet access to actualize the current weather.

Glossary

APK:

Android Package (APK) is the package file format used by the Android operating system for distribution and installation of mobile apps and middleware.

API:

= Application Programming Interface
A set of functions and procedures allowing the creation of applications that access the features or data of an operating system, application, or other service.

Github:

Github is a site hosting Git, a **version control system**.

Sdk:

= Software development kit
A set of development tools used to develop applications for Android platform.

Version control system:

Version control systems are a category of software tools that help a software team manage changes to source code over time.