# Description

The Android Tablet application is the part of our project that concerns the “virtual” player. It enables a player to connect to a card game occurring in a real environment and to play with real players through his tablet, running under an Android operating system. We chose the Android environment because it was free, easy to access and well documented, as opposed to an iOS environment. Plus some of us already had experience in developing Android Apps which made it faster for us to get on the development of the App. The version of Android used for developing the App is 4.2 (SDK version 17), the minimum SDK version being 14.

# Architecture

The app consists of two main parts: the game and the navigation. These parts were developed separately by two different people in order to gain time and be sure that all the features that we wanted in the App were looked upon. These two parts were put together at the end of their development. For both these parts, the communication with the Server is handled by HTTP Posts. It enables Android activities to send information to the Blue Weasel Server and to get responses back. The information received is then processed and used for different purposes. In the navigation part, HTTP Posts are used to create a new account, to sign in, to get the list of available games and the list of games played in the past. In the game part, HTTP Posts are used to get the game state from the server and to send the virtual player moves to the server.

There are three packages in the java part of the project:

* The “activities” package which consists of all the Android Activities. Each one of them represents a screen, and the related code, from the Android app.
* The “classes” package which consists of regular Java classes used by the Android application, such as Shared Content that can be used by all activities.
* The “game” package consists of the activities used by the game and the related code that handles animations, communication with the server and display.

Each Android Activity is linked to an XML file that describes its layout: the text, buttons and other element that are present in the activity. This way of doing was preferred to another way which would have consisted of creating all the layout elements in the Java code, which would have made twice as much java classes. However we had to use Java to create an place layout elements when the static XML way was not option. This is the case for some elements of the game part of the application.

Every screen of the App was created base on the ergonomics found in the appendices of the Functional Requirements for the Blue Weasel project.

# Technical Description

The App was developed using Eclipse Juno (Service Release 1) and using the Android Development Tools Plug-in (version 21.0.1). The testing devices were two Nexus 7 from Asus both running Android in its 4.2.1 version

# Installation and configuration

An APK archive is downloaded and installed automatically on the Tablet through Eclipse. However, the APK file can also be put in a folder of the tablet and then launched from the tablet, without using Eclipse. No configuration is needed for the tablet application. We tried to make it simple and self-explanatory so that no user guide would be needed.

# Testing procedures

The App was developed using some of the principles of the Agile methodology. Amongst them is the fact that tests were performed every time after a new feature was developed. This way we knew that our app was always operational and we could start working on another feature, instead of waiting until all the features were developed to start testing which would have certainly make us lose time.

As said before, the tests were performed on two Nexus 7 from Asus, with 16 Go of memory, 1 Go of RAM a 7” screen and a quad-core CPU.