Specification

1. Project description

1.1 Context

This document is a specification for this year's POCA project, as part of our last year in the Ecole d'Ingénieur Denis Diderot Paris VII.
It details the requirement for our Massive Multiplayer Online game project, called Not Pokémon Go. This game will be developed in the Scala programming language, and will make of various libraries as appropriate.

1.2 Goals

We plan the delivery of a production-quality pokémon themed multiplayer online game, available on all major PC operating systems.
This game will allow the players to create their own character and explore the real world looking for Pokémons to catch. Players will be able to fight and trade with each other, and interact with the world through Pokéstops and Gyms.
The game will feature a 2D graphics engine with sound effects and music.

1.3 Existing environment

Several tools will be used for the development of this project, including the Eclipse Environment IDE, the Jenkins Continuous Integration system, and the SonarQube quality assurance platform.
Java and Scala libraries will be also be used throughout this project as appropriate. First we will start with a minimal implementation, but several extensions are planned, which will require using additional external services such as Google Maps.

2. Requirements

2.1 Functional specification

Character creation:

- Online registration
- Character creation, with some limited personalization (gender, skin color, etc)
- Choice of a starter Pokémon
- Choice of a start inventory

Main view:

- Display the status of the character and their main Pokémon
- View a map of the world around the player
- Players can view each other on the map, and trade or fight with others
- Allow the player to move around the world with the keyboard
- Players can visit Pokéstops to receive items and Gyms to fight others
- Configuration menu to access the options
- Can see Pokémons on the map and start a fight with them
- Players can chat with each other

Battle view:

- Fight with a trainer's Pokémon against a wild Pokémon using skills
- Attempt to capture the wild Pokémon using a Pokéball
- Use an item to heal the trainer's Pokémon
- The trainer can flee from the fight

Pokéstops:

- Players can get items from Pokéstops at a regular interval

Gyms:

- Players can take control of a Pokémon Gym if it is empty
- Players can fight to retake control of another player's Gym

2.2 Non-functional specification

Throughout this project, we will ensure some details that will offer to the users a degree of satisfaction with the use of Not Pokémon Go, namely:

- Reliability : Not Pokémon Go should be reliable and should not crash or present any bug.
- Ergonomics : Not Pokémon Go should contains friendly graphics interfaces to facilitate the utilization.
- Extensibility : improvements and edits should be easy to realize.
- Simple utilization : the use of the game should be easy in order to attract players
- Performance : Not Pokémon Go must be reactive, regardless of user action.
- Portability : Not Pokémon Go should run on all operating systems
- Responsiveness : the interface should be responsive (adaptation to the size of the screen)

3. Constraints

Costs :

- The server will cost 3 euros 59 cents per month

Deadlines :

- We should deliver many documents during the project, each one has his deadline.
- The first implementation should be ready for the 22th november

4. Progress of the project

Throughout the project, we decided to use the Agile method for the development of our game.
The team should deliver each 10 days a working prototype "Sprint"

5. Documentation

We will ensure to provide a documentation for our project so the users will not have difficulties to play.