# Technical Documentation World of Gphy

#### **Groupe 5**

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#### Game context

You play as a fictional character, who is a M1 Ghpy student. The day that starts normally. But you quickly realize that the COOPOO exercise must be completed before the end of the day. So you must quickly find your group members in order to deliver the subject. Unfortunately, this will not happen without trouble...

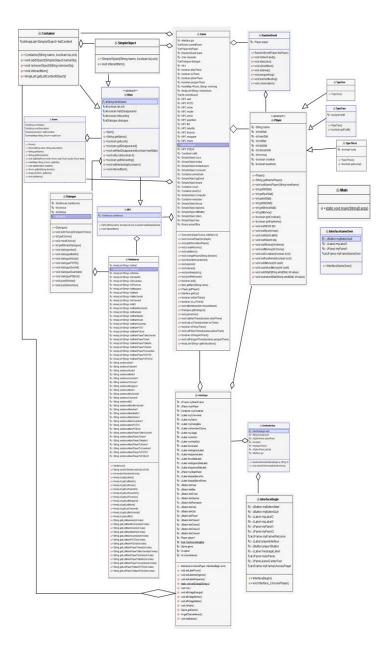
You have to choose between three characters: Pierre-Alphonse, Elie and Luc.

You have to explore the different rooms and speak with severals non player character to achieve the different quest. You have to check your energy bar and you stress bar. If your energy bar is empty or your stress bar full, you loose.

# Technical architecture and development

## Class diagram

Class diagram (please consult the .pdf file which can be zoomed in without loss):



# Strategy of developing

Before starting the World of Zuul project, we have training ourselves on several exercises, to understand the working of the JFrame for example.

After, we have test a bad World of Zuul, with no interface, to understand how this game works. This World of Zuul allowed us to learn the use of the hashmap.

Then, we have imagined our one World of Zuul. We have written the script and the progress of the quests. We have also create a document with all the class we want and which methods they have.

After that, we have started coding the project.

The first step was to create the class and their methods. Their functional core was not developing and only contain stubs. We have create the JUnits tests for all the class after. All the JUnits have fail, thanks to te stubs.

The second step was to implement the functional core of our methods. When a method was finish, its test succeed.

The last step was to design and create the graphical interface user. The interface has to be simple and graphical.

Once the project finish, the jar file allow to play the game as often as we want.

#### General functionalities

When the game is launched, the player has two choice: start or quit the game.

If he start the game, he can choose between three characters.

After that, the game begin.

During the game, the player have several buttons to play.



The buttons with the pointed finger allow the user to move in the B2.

The button with the hand allow the player to interact with the non player character and the object in the rooms.

The buttons with numbers allow the user to choose which item he want to interact with.

The help button show some information, like the current quest.

The button with the cross allow to guit the game.

When the player speak with a non player character, sometimes, he have to choose his answer. Some answers can lead to modification of the statistics. For choose his answer a little window appears with two buttons: "1" and "2". The player have to make his choice between the two answer show in the dialogue box.

## Class description

- Dialogue: The Dialogue class is the class where we store all the complex conversation between the player and the NPCs. Each conversation is a method and can be called in the main class.
- Game: The main class of the game. When a new game is created and play(int) is called, the game is launched. The user appears in a room and the main guest is

- activated. In the constructor we call every other constructors. This class is where we call all the methods from the other classes in order for the game to run.
- GestionAction: this method allows make the action after clicking on the button of the InterfaceBegin. This method allow to start the interface.
- Interface: This is the main interface of the game, the one that the player use to play.
- InterfaceBegin: this is the interface called when we start the game. First you can choose between play or quit and after you can choose the character that you want.
- InterfaceGameOver: This interface appears when the player has lost.
- Item: The class item manage all the the items in a room. This items can be a non player character, a container or a object. The item has a name when it is create.
  - Container: This class inherits from item and represents the item type: container.
  - NPC: This class inherits from item and represents the item type: non player character.
  - SimpleObject
- Main: This is the main, called when we launched the game. It create the InterfaceBegin object.
- Player: This is the mother class for players. Three types of players are available and (3 classes which inherit from this class).
  - TypeOne : This class inherits from player and represents a player of the first type.
  - TypeTwo: This class inherits from player and represents a player of the second type.
  - TypeThree: This class inherits from player and represents a player of the third type.
- RandomEvent: A lot of randomEvent that appears randomly in the corridors. The methods of this class always return a list with the statistic that could be changed during the event. The statistics of the player will be changed in the game class by calling the addStat method from the player class. One of the method of the class is called in the game class when the player enter a room where it might happen.
- Room: The Room class. Corresponds to the room in which the player is. Changes each time the player room according to his direction. All the rooms are linked together.
- Sentences: The class Sentences, having different list of sentences. These sentences can be used by interacting with a non-player character (NPC). They are used when the player talks with them, and this NPC has not important sentence to say. The sentences are short, and there is not possible to answer. There are around 3-4 sentences that can be spoken by each NPC. These sentences can be of different kinds: recall the quest to be done; to be a joke, ...

#### Create the Jar File

This project was developed with NetBeans. Before create a Jar File with NetBeans, you have to be careful that your images are in the right folder, with your codes.

Then, you can click on "Run" in the toolbar and then on "Build and Clean project". There is a keyboard shortcut to do that, by doing Maj-F11.

The Jar File is create in the dist folder of your NetBeans project.