**OBJECT-ORIENTED PROGRAMING REPORT**

**PROJECT: MEGAMAN**

**GROUP:** 10

**Members:**

* Nguyễn Thanh Phong - ITITIU19040
* Huỳnh Học Lâm - ITITIU19022
* Hà Minh Khoa - ITITIU19020

1. **Introduction:**

* For this object-oriented programming project, we built a game called Megman which is a very famous game that provide memorable, enjoyable and exciting experience for many gamers in the late 1900’s and early 2000’s.

1. **BASIC RULE AND FUNCTION OF THE GAME:**

* The basic rule of this game is that the player controls the main character, megaman, travel through while defeating enemies placed throughout the map.
* The player can use button such as “Z” to make megaman jump, holding “Z” will make megaman jump even higher, and “X” to shoot bullets at enemies.
* If megamn make contact with an enemy or an enemy’s bullet, he will lose a small amount of health. If megaman loses all of his HP, game over.
* The megaman’s health will be represented with a yellow bar in the left-hand corner.
* When the player reaches the final stage, there will be a boss awainting for the player arrival.
* The boss will have a considerably larger health pool and have an interesting and unique type of shooting, therefore, making the match between megaman and the boss will be a bit more difficult and compelling.
* In order to win the game, the player must defeat the boss before he loses all the main character loses all his health.

1. **Contributers:**

* We divided the project into 3 main parts that we thought would create a functional, logical and interesting game: Map, Megaman, Enemies.
* Each member of the team is in-charge of a major part of the project:

1. **Huỳnh Học Lâm**: Leader of the team, main idea contributer, debugger, in charge of megaman and bullet megaman classes as well as implement in GameWorldState class.
2. **Hà Minh Khoa**: idea contributer, debugger, background and physical map designer, in-charge of physical logic collision of the map.
3. **Nguyễn Thanh Phong**: idea contributer, debugger, in charge of creating enemies, enemy bullets and enemy manager as well as boss.
4. **GitHub link:**

[https://github.com/baryenmunich123/OOPProject (github.com)](https://github.com/baryenmunich123/OOPProject)

1. **UML diagram:**

Graphical user interface, application, table

Description automatically generated(There is an image an an umlcd file included in the github that everyone can access to have a better view of the uml.)

1. **Overall:**

* In conclusion, our team has learnt a lot of new knowledge and coding skills throughout the project such as: dealing with deadline, teamwork, git operation, utilize OOP’s knowledge to implement this game.