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Project Report

- **First Meeting on Saturday 12 november 2022:**

1. We started by separating the project tasks as follows:

- Abdulrahman: Bullet, Power pallet, and endgame door. As well as figuring out how to implement the QTimer in QT.
- Youssef Said and Ahmed Said (collaborative work): Franklin, the enemies, and the graph (with all the assets).

- **Second meeting on Thursday 17 november 2022:**

- ☐ We reviewed each other's work, and gave each other feedback on how we can improve the code implementation.
- ☐ And took our first steps into combining the code in one Qt program by giving Abdulrahman a draft map to be able to work on.

- **Third and fourth meeting on Sunday and monday 20-21 november**

2022:

- ☐ In these two meetings, we started to combine a fully working Qt game.

Adding all the new attributes for the code to function properly as well as tackling all the bugs and errors that occurred when coding the game, or while playing testing it.

- ☐ The problems ranged from timers that accelerated overtime which we tackled by making one timer per object and one slot per call so that a slot won't be called twice which caused the timer to accelerate. ☐ Sometimes the code would execute the same part more than once, sometimes it tried to add already added items so we used booleans to keep track of the items added and prevent the code from adding them again.

- ☐ There is a glitch that was not easy to discover as it did not happen often, the glitch is that the escape door sometimes didn't get added after both thugs were dead, unfortunately we discovered the problem after submitting our work but we solved the problem by adding the line below to the end of franklin's constructor:

`escape.added=false;`

□ In these meetings we also worked collaboratively on implementing the code that would display the health, the timer, the state as well as the victory and defeat messages on the screen.

Project milestone 2:

- We met on 8/12/2022 and 9/12/2022 to do research on A* algorithm and implemented it collaboratively, all of us worked together. We modified the code so that the A*algorithm would not move diagonally and can only move horizontally or vertically on our graph.
- Last meeting on 10/12/2022, we tried to implement bonus levels but unfortunately were not able to change the QgraphicsPixmap assets for some unknown reason but were able to make 2 levels using the same map while changing the theme of the thugs, the music, and the power pallets to give new vibes to the player. The new levels do not reset the health of the player to make them harder.