Game Development and Multimedia Technologies
Summative Assignment – Covid-19 Fighter in the UK

This coursework requires you to develop and implement a game fitting the "Covid-19 Fighter in the UK" theme. You are expected to apply a good range of knowledge and skills learnt from this module to complete your work. The implementation can be done by PyGame or Unity. You should choose a suitable game genre and design a story matching the required theme. You should also design game machinations to control game progression and game object abilities. Finally, you should demonstrate an effective use of multimedia content. Note that the focus of this coursework is game development with implementation rather than realistic graphics modeling.

The coursework contributes 100% of the module assessment. Submission date is the 28th January 2021 (2pm). The marking criteria is as follows. The level of achievement that you can achieve under each marking criteria is shown in the table at the end of this page.

- Complete game specification form and submit a 1-minute video demonstration (8%)
- Game design matching the "Covid-19 Fighter in the UK" theme (5%)
- Core development and implementation (30%)
- Game mechanics with machinations diagrams (30%)
- Good use of game engine (12%)
- Demonstrate creativity (15%)

The **game specification form** provides a detailed breakdown of what technical aspects you are expected to include for each marking criteria above. All aspects under each criteria are equally weighed within the criteria. You are required to fill in and return the form, providing brief descriptions of how your game meets the criteria. **No mark will be given to your coursework if you do not fill in the form.** You may refer lecture slides for the definition of the terms using in the form and the methods for implementing your game to meet each of the criteria.

Your submission should include the game specification form, your implementation with all source codes and resource files, a readme file showing instructions of how to run your game and what external resources you have adopted, and a 1-minute video showcasing reputable features of your game. You should compress all files into a single zip file and upload it to DUO for submission.

The level of achievement of each criteria is determined as follows. This is developed according to the marking and classification conventions published in pp.15-16 of the university core regulations. (https://www.dur.ac.uk/resources/university.calendar/volumeii/2020.2021/coreregsug.pdf)

Level of achievement:	Range of Marks
No submission	0%
Inadequate or incomplete submission	0 - 40%
Satisfactory to Good (in terms of correctness and completeness)	40 - 60%
Very Good to Excellent (in terms of completeness and robustness)	60 – 80%
Outstanding to Perfect (in terms of completeness, robustness and complexity)	80 - 100%

COMP3567 Game Specification Form **Student ID: _____**

Marking Criteria	**Describe how your game matches the criteria (Description of each item is limited to 50 words)**
Game design matching the 'Covid-19 Fight in the UK' theme (5%)	
Justification of the choice of game type:	
Game story:	
Core development and implementation (30%)	
Game scene (visual representation [2D, 2.5D or 3D], internal data structure):	
Game flow and how it is designed (e.g., navigation, screen scrolling, levels):	
Game interaction (e.g., action detection and response generation):	
Game object (e.g., use of sprite, 3D objects, animation, multimedia):	
Game mechanics development and implementation (30%)	
Main game rules / logics to control game progression, difficulty and end game conditions:	Machinations diagram is required for this item on top of the description.
Control of game object abilities:	Machinations diagram is required for this item on top of the description.
Good use of game engine (12%)	
Justification of the choice of game engine (pyGame, Unity) in terms of suitability of matching the theme and the expected target audience (game player):	
Types of user input supported (keyboard, mouse, joystick, etc.):	
Types of game object interaction supported (e.g., event triggering, collision detection):	
Other game engine features used (e.g., asset, incorporation of external libraries):	
Demonstrate creativity (15%)	
Effective use of multimedia content:	
Advanced interaction implemented (e.g., game physics, object tracking, steering behaviour):	

***Note:** Your work must be done by yourself and comply with the university rules about plagiarism and collusion. (https://www.dur.ac.uk/learningandteaching.handbook/6/2/4/)