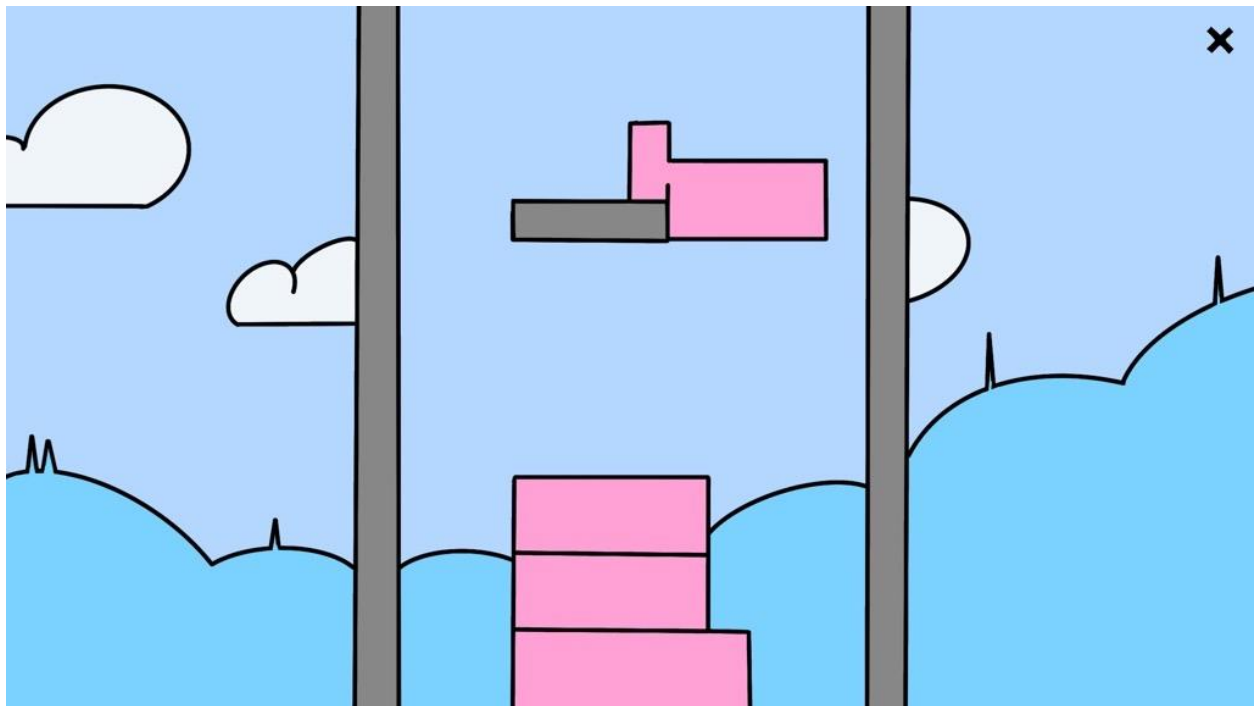# Game Engines

Task 1

Part 1 – A basic Description of the game

Our game is going to be a 2D game based off of Stack 2D, The Tower (stack game) and Tetris, used for inspiration purposes. The game is a hyper casual game with only few mechanics necessary to achieve the main objective of the game, which is to stack and get a highscore.
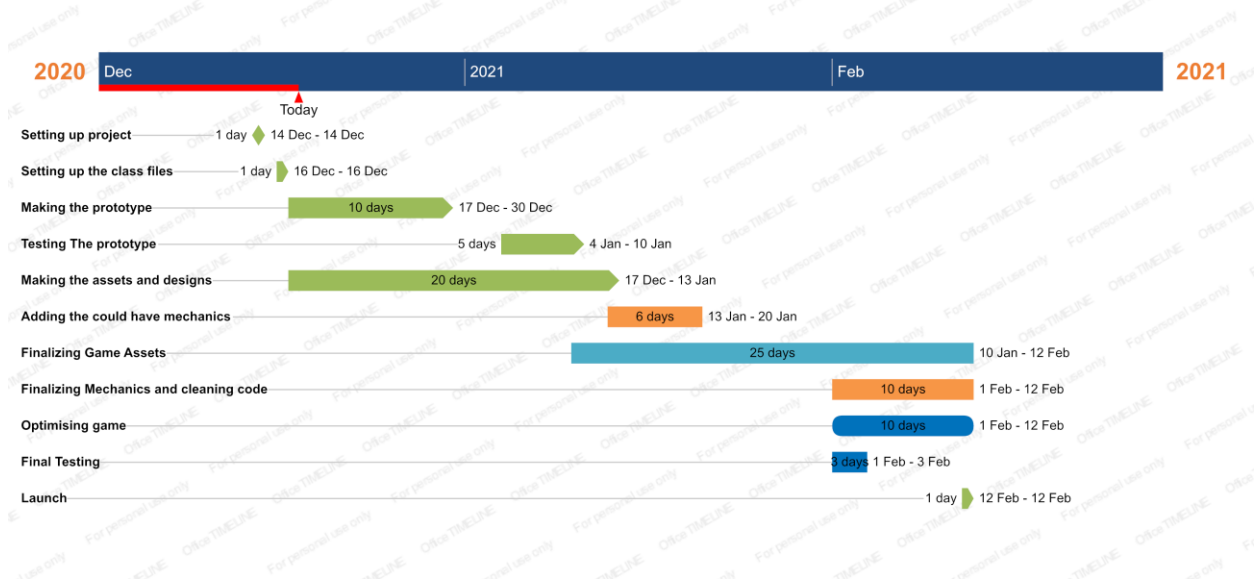

The game would look something like this, having obstacles in the way of the object to conflict with the player while trying to achieve the perfect stack. This will happen after some blocks has been places so that the played gets used to the game before trying to dodge any obstacles.

To have a brief idea, the games core mechanics will be, the player moving left and right with arrow keys or 'A' and 'D' and be able to press space bar to place the block, whether in the air or on the block, the game will know when and where you place as it will check for block placement.
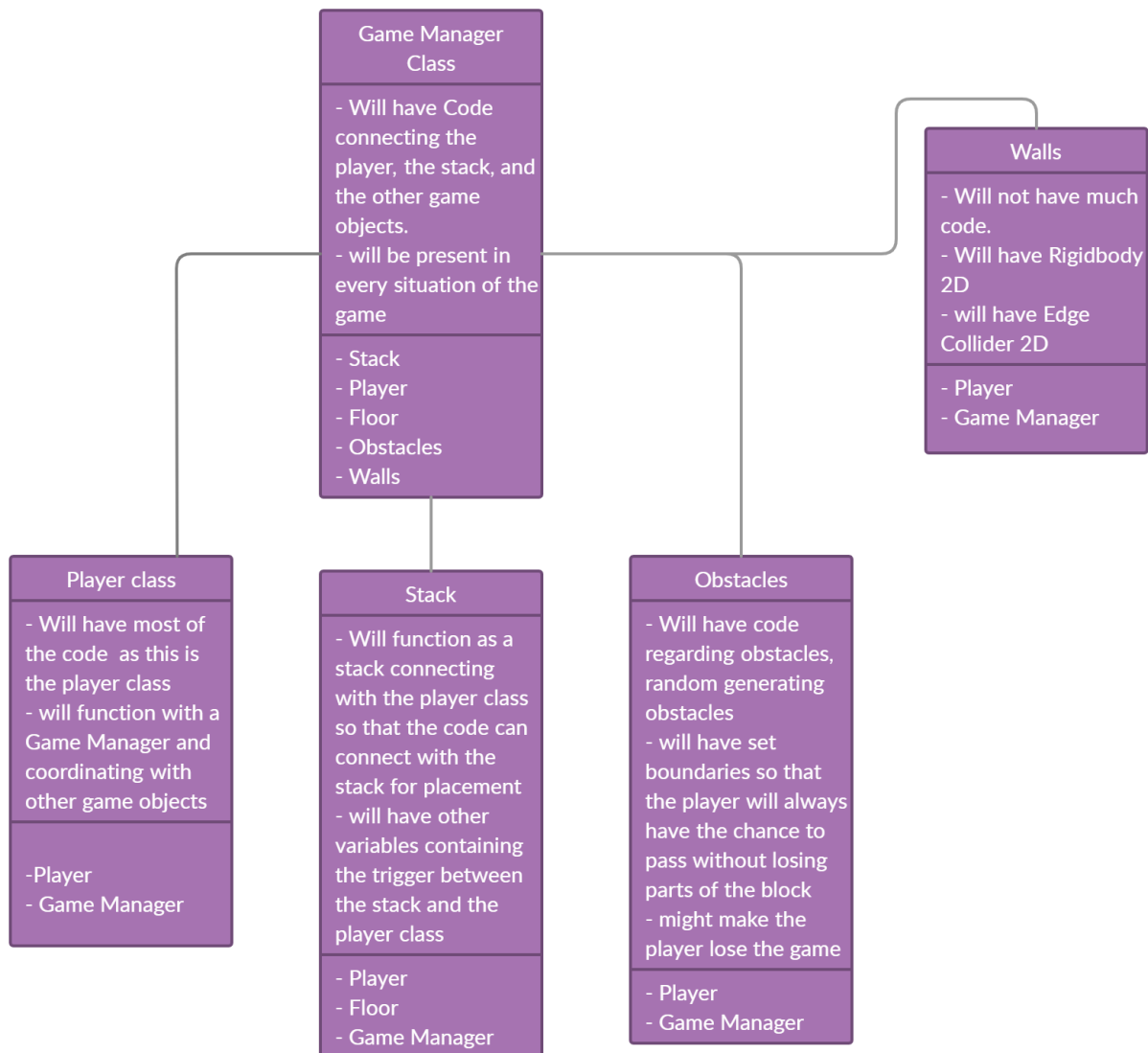
Gantt Chart

Blocker Timeline

	2020	Dec	2021	Feb	2021

Today

Setting up project	1 day	14 Dec - 14 Dec
Setting up the class files	1 day	16 Dec - 16 Dec
Making the prototype	10 days	17 Dec - 30 Dec
Testing The prototype	5 days	4 Jan - 10 Jan
Making the assets and designs	20 days	17 Dec - 13 Jan
Adding the could have mechanics	6 days	13 Jan - 20 Jan
Finalizing Game Assets	25 days	10 Jan - 12 Feb
Finalizing Mechanics and cleaning code	10 days	1 Feb - 12 Feb
Optimising game	10 days	1 Feb - 12 Feb
Final Testing	3 days	1 Feb - 3 Feb
Launch	1 day	12 Feb - 12 Feb

Basically this is an idea of the scope of the project to split the work according to the deadlines, of course this is the process of which we are going to work in, from setting up the project to prototyping to optimizing the game, finally testing and launching to summarize it. This scope will likely change when things are more in place. Currently the project is setup, the class files and game objects are setup, code is partially ready towards the prototype.

CRC Cards

Game Manager Class

- Will have Code connecting the player, the stack, and the other game objects.
- will be present in every situation of the game

- Stack
- Player
- Floor
- Obstacles
- Walls

Walls

- Will not have much code.
- Will have Rigidbody 2D
- will have Edge Collider 2D

- Player
- Game Manager

Player class

- Will have most of the code as this is the player class
- will function with a Game Manager and coordinating with other game objects

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-Player
- Game Manager

Stack

- Will function as a stack connecting with the player class so that the code can connect with the stack for placement
- will have other variables containing the trigger between the stack and the player class

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- Player
- Floor
- Game Manager

Obstacles

- Will have code regarding obstacles, random generating obstacles
- will have set boundaries so that the player will always have the chance to pass without losing parts of the block
- might make the player lose the game

- Player
- Game Manager

This is how the code will be connected as an idea, of course as we go along things change and might need to be added and changed according to the situation. But this is a general idea. The Game Manager will have the main role in connecting scripts and game objects because of its presence being that it will always be in the game.