Report on game development project.

**Name of game: “Get Ready to Thrive”.**

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**Coding language used:**

Python

**Library used:**

For this project I have used the Pygame library.

**Build-in methods used:**

pygame.display, pygame.pressed, pygame.time.Clock, pygame.display.set\_captions, pygame.image.load, (…).blit(), (…).draw().

There can also be more in code, but these were used largely.

**Coding method preferred:**

Object Oriented Programming.

Object-Oriented Programming can do nearly all those stuff which can be done by conventional programming. OOP is simply better. Here we can mention specific classes and corresponding attributes and methods that we can use in further code. The code becomes more readable and more comfortable to edit.

**Story of game:**

This is a two-dimensional single-player game, which can also be multiplayer in future. There are two characters in the game; namely, Nobita inspired from cartoon series Doremon and Thor, inspired by science fiction movie Avengers produced by Marvel Universe. Nobita is loaded with bullets and can us as much as he wants. Thor has a particular poison on the body and harms anyone who comes near to him. Nobita wants to free the world from cruel Thor and hence come out to face him. This is wartime!

**Tools and dimensions:**

Window size: 800 X 500

Sprite size: 60 X 75

Maximum number of bullets on screen: 07

**What new methods I learnt:**

I learned object-oriented programming, explored pygame library, and understood how objects move on the screen. Movement of the items on screen is just the fast motion of images, at least 16 frames per second, I knew this but was unsure whether we use the same concept for animation in games. I was fascinated after seeing my sprite move utilising this technique.

During programming, I learnt how to deal with bugs and problems that may occur while running a program. In my case, I was following the tutorial from Tech With Tim YouTube channel and was stuck while making the program which allows jumping, I tried the program many a time, but wasn’t able to understand, then I took some break and tried again, this time I could figure it out. Therefore I learned how to shuffle between diffused mode and focussed mode of learning.

The primary learning that I gained from this experience is that the things can be challenging but not impossible, it may look undoable initially, but have trust in yourself, and then the things look doable.

**References or resources used:**

1. **Pygame Programming Tutorial** from **Tech With Tim** YouTube channel: <https://www.youtube.com/channel/UC4JX40jDee_tINbkjycV4Sg>
2. **Background image**: <https://s3.amazonaws.com/gameartpartnersimagehost/wp-content/uploads/2018/03/Game_Background_190.png>
3. **Enemy sprite**:

https://www.simplifiedpython.net/pygame-sprite-animation-tutorial/