

# Assignment 3

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## 1 Introduction

In this assignment we were expected to first, turn a webgl code to webgl2 in part one and then change the square shape that was given to us to pyramid with different colors for each vertex and then add some functions to it, second, we were asked to add dragon object and add some functions to it.

## 2 Experiment

### 2.1 Part 1

In the part 1 of the assignment, we were asked to turn the webgl code to webgl2, to do that i used webgl2 fundamentals' [2] website to achieve what was wanted, then we were asked to change the shape to pyramid with colors for each vertex of it. For the functions, we were asked to add pointer lock api function and to achieve that, i implemented the pointer lock api to get mouse movement to feed values from it. So when the pointer lock api was activated pressing p key, depending on the mouse movements, object changed its shape.

### 2.2 Part 2

In the assignment's part 2, we were asked to add dragon object to the canvas with ground underneath it. After that we were asked to add camera to move it around from user feed.

For the first part i implemented the file reader, file parser and object rotation with matrix in vertex shader. With these object was created and it gets keyboard feed from the user to change its movement animation in the y axis.

I could not make the rest of the project sadly.

Since i did not have any classes i cannot fill the classes table.

Table 1: Methods

Method Name	Input(s)	Output(s)	Info
render	No input	-	Sends data to shaders.
buttonActions	id	-	It changes values for render.

### 3 Conclusion

I have learned how to add pointer lock api to projects with first part and with the second part, since i could not finish all of it, i only learnt how to parse and obj file and create the object that it has. Similar codes can be found in our book at [1].

### References

- [1] Edward Angel and Dave Shreiner. Interactive computer graphics. <https://www.interactivecomputergraphics.com/>, 2020. Accessed: 16-11-2020.
- [2] webgl2. Webgl2 fundamentals. <https://webgl2fundamentals.org/>, 2020. Accessed: 16-11-2020.