Experiment 4

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Introduction

In this experiment , there are two parts of tasks for us. In the Part1, we are expected to use pointer lock api. With doing this, we can change the phi and theta values with mouse movement. In the Part2, we are expected to draw a monkey head over a plane. We draw the plane, too. And also , we have to use pointer lock api and other features in this part like camera movement, increase and decrease the speed of the turn of the monkey head. And, we can use 'e' key of the keyboard for enabling or disabling of the pointer lock api in this part. When we use this feature, we can use the mouse for changing camera view.

Part1

In this part, I used pointer lock api for the requirements of this part. When the user press 'p', the mous will be used for changing phi and theta variables. The user can use mouse for this feature when push the 'p'. If the user push the 'p' again, the pointer lock api is locked.

Part2

In this part, we used monkey_head.obj file which is given. .For using the monkey head object and loading to the project, I used jquery lib.We drawed this object with a green plane. Also, with the key events, we implemented the increasing speed(+),decreasing speed(-), forward camera movement(up arrow), backward camera movement(down aroow),right camera movement(right arrow),left camera movement(left arrow), upward camera movement(page up), downward camera movement(page down). And also, we implemented the mouse event, with key 'e'.

Conclusion

In this experiment, I learned how to use pointer lock api and how to load an object from obj file to the project. With the other features of this experiment, I learned about camera movement and using mouse for changing views in webgl.

Table: Functions

Function Name	**Input(s)**	**Info**
init	-	calls canvas,document, initShaders and drawings
lockChangeAlert	-	locks pointer lock and update view
input	event	listen keyboard and do actions
updateView	e	Movement x and y direction
load_Obj_File	-	loading object from .obj file
drawMonkey	-	buffering monkey datas and draws
drawGround	-	buffering plane datas and draws
draw	-	calls drawMonkey and drawGround, requsetAnimation(draw)