**Graphics Report**

**City View**

**Group : 9**

**Sec : E**

**Introduction:**

Computer Graphics is one the most exciting and rapidly growing fields. Computer has become a powerful tool for the rapid and economical production of imaging industry. We know that in future, engineers, designers etc. will be using computer graphics quite extensively. There is virtually no area in which graphical displays cannot be used to some advantage, and so it is not surprising to find these of computer graphics so widespread. So for understanding the depth of this subject and for gaining sound knowledge in this field we had an attempted to the first step on this current field. We tried to make a graphical design of ‘City View’ of Bangladesh. This project applied the subject and made the scenario which displays the daily scenario of what happens in the City View area. A picture is better than thousands of words. This project will easily convey the daily scenario of the City View area to everyone.

**Problem Statement:**

We do artistic representation of a city through graphical objects. An urban environment consisting of buildings and other infrastructures, road, sidewalks, metro rail etc. Movement of various vehicles and snow will be there. The scenario and corresponding environment will be changed depending on the phases of day and the change of weather conditions.

**Objective:**

To make understand the viewer how graphics is generated in this computer world is the main goal of this project. To learn how to rescale, transmit (shift), translation, changing the size of an object or scaling and rotate different graphical objects is another goal. Animating some simple graphics is the final aim of the project. To design this view, we used OpenGL.

To develop this project, we used some API. An Application Programming Interface (API) defines the way that applications interact with components of a computer system. The API that we used is OpenGL, Code Blocks etc.

The feature we used are-

**Animation:**

Animation refers to the movement on the screen of the display device created by displaying a sequence of still images. By using animation, we move our car, cloud from one place to another.

**Scaling:**

In computer graphics, refers to altering the size of a sprite to make the sprite appear nearer or farther from the player's point of view. It is transformations that change the size or shape of an object. By using scaling, we shorten and increase the line, quads, and triangles.

**Translation:**

A translation process moves every point a constant distance in a specified direction. It can be described as a rigid motion. A translation can also be interpreted as the addition of a constant vector to every point, or as shifting the origin of the coordinate system. By using translation, we translate our building and other things.

**Implementation:**

**List of all used Functions:**

glLoadIdentity();

glutTimerFunc

glutPostRedisplay();

glVertex2f ();

glBegin

glEnd();

glColor3ub;

FilledCircle;

glPushMatrix();

glTranslatef();

glPopMatrix();

glFlush();

glClear

glutCreateWindow

glutReshapeWindow

glutKeyboardFunc;

**Significant Of The Project :**

From this project we can see day and night view and how the city model looks. Also the train line sywtem and road mapping system and building model. This city view project can run in all screen.

**Conclusion:**

This project is one of the sample projects on computer graphics. Though many difficulties were faced during the project as well as many errors occurred, we become success to compile and run the program. There are some limitations on this project as well. So, in the near future, we would like to be hopeful in further improvements. We have tried out best to include each and every basic features of graphics in our projects. From this project we are able to gather knowledge in computer graphics. We have also knowing openGL concept. Moreover, we also gained an experience of group work, team coordination that how team works is very much important for engineering students.

Reference :

<https://www.youtube.com/>

<https://www.google.com/>

<https://github.com/>







