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Performance Date:
Submission Date:

Title: Implementation of OpenGL functions.

Problem Statement:

Write program to draw sunrise & sunset.

Theory:

OpenGL is a cross language, cross platform, API for rendering 2D & 3D vector graphics (use of polygons to represent image). OpenGL is a low level widely supported modeling & rendering software package, available across all platforms. Can be used in a range of graphics application, such as games, CAD designs etc.

OpenGL syntax:

- 1) All function have form `gl*`
`glVertex3()`.
`glVertex2()`.
- 2) `GLfloat` instead of `float`.

Writing an application in OpenGL:

The program must include the 3 libraries:

1. `#include <GL/glut.h>`
2. `#include <GL/gl.h>`
3. `#include <GL/glu.h>`
4. `#include <windows.h>` for windows os.

Function for window.

```
glutInitWindowPosition();  
glutInitWindowSize();  
glutInitCreateWindow();
```

Algorithm:

1. Create necessary functions such as Draw, Init, Ball, Mountain.
2. In init initialize & enable for lighting.
3. In Ball & Mountain create shape of sun & mountains.
4. In Draw set up the scene by giving animation & lighting & change in color.
5. Write main function.
6. Run application end.

Conclusion:

We learnt about animation & basic shapes in Open GL.

Hope all students are satisfied
Sankalp Srikar during exam preparation will
<A. M. I. T. P. D. > helped me
Wish you all success
Sankalp Srikar
Sankalp Srikar