

Graphics Engine Project

Week3 Requirements:

- create and add class Shape containing:
 - o attributes:
 - an instance of class EngineGlut (protected);
 - o member functions:
 - the virtual function draw();
- no implementation needed for draw() function – it is virtual and it is already implemented in each **derived** shape (Point, Line, Triangle, Rectangle);
- make the class Shape to be the **base** class for all the already created shapes: Point, Line, Triangle, Rectangle and Airplane;
- at the moment, you have created an instance of the EngineGlut in all the draw() functions in the derived classes in order to be able to call the drawPoint(), drawLine() or drawSurface() methods, but now all the derived classes inherit the engine attribute from the base class Shape, so you can remove those instances from the draw() functions.

Example of an updated draw() function:

```
void Point::draw()
{
    this->engine.drawPoint(this->coordinates[0], this->coordinates[1]);
}
```

where engine is the EngineGlut instance/attribute from the base class Shape.