# Critical Evaluation

For my project I decided to model Leicester Airport in Stoughton, Leicestershire. I chose this airport as it is small enough that it will not be too difficult to represent in OpenGL and still gives a good area to model with 3 main runways, a control tower and hangers I have also been there in person.

## My process

I began by creating a Win32 project from scratch, I created a class “Program” that holds the main functions that will be used during the programs main loop similar to the “ExampleX” class from the lab work. I moved over the provided “TextureLoader” and “Win32OpenGl” classes as well as the Camera, Model, and ModelInstance classes I had created through the course of the labs. I modified the model instance into and “Object” class which holds a model as well as position, rotation and scale information. This allows a model to be used many times without having to reload it each time.

I added mouse movement to my camera class by using windows setCursour pos() function to centre the cursor to the middle of the screen, calculating the delta movement of the cursor each frame moving the camera relative to this movement then recentering the mouse cursor. Next I wrapped all the light information into a light class and created a keyboard class to more easily and accurately detect if a key is pressed down.

As the mouse was now locked to the centre of the screen I decided I needed an escape menu to free the cursor and quit and also give the option to adjust the sensitivity of the mouse look. This was challenging as I had not previously done any windows programming but through trial and error I managed to get an escape menu and an options pop-up that allows the user to enter a value to adjust the look speed.

Next I added a skybox this was one of the more challenging parts as it was hard to find a suitable textures and then map them to the cube.