**Lab # 1 – INFR 2350 – Intermediate Computer Graphics**

**Rylan Koroluk - 100568483**

**Owen Meier - 100538643**

A VBO (Vertex Buffer Object) is an OpenGL technique that is used for offloading the vertex processing of various graphical objects to the GPU. The GPU is far better suited to handling these types of calculations.

A VAO is a designed for encapsulating VBO’s for making necessary changes.

Our VBO class is designed to handle input data from certain types of objects (cubes in this case) that is stored in code or in a script. It reads in that data, stores and manipulates it in such a way as to be compatible with the shaders.

Immediate mode is essentially generating, reading, writing and displaying information at run time. Retained mode is the storing of vertex objects and information on the GPU at load time. This is results in a significant speed increase for rendering.

vec4 texColor = texture(u\_tex, uv).rgba;

Is the code we used to implement the texture that was already available. This modification to the shader was simple and basically already implemented.