**CHAPTER-5**

**IMPLEMENTATION**

The Lift Over Bridge can be implemented using some of the OpenGL inbuilt functions along with some user defined functions. The inbuilt OpenGL functions that are used mentioned under the FUNCTIONS USED category. The user defined functions are mentioned under USER DEFINED FUNCTIONS category.

**4.1 Functions Used**

* **void glColor3f (float red, float green, float blue):**

This function is used to mention the color in which the pixel should appear. The number 3 specifies the number of arguments that the function would take. The ‘f’ gives the data type float. The arguments are in the order RGB (Red, Green and Blue). The color of the pixel can be specified as the combination of these 3 primary colors.

* **void glClearColor(int red, int green, int blue, int alpha):**

This function is used to clear the color of the screen. The 4 values that are passed as arguments for this function are (RED, GREEN, BLUE, ALPHA) where the red green and blue components are taken to set the background color and alpha is a value that specifies depth of the window. It is used for 3D images.

* **void glutKeyboardFunc( ):**

Where func() is the new keyboard callback function. glutKeyboardFunc sets the keyboard callback for the current window. When a user types into the window, each key press generating an ASCII character will generate a keyboard callback. The key callback parameter is the generated ASCII character. The x and y callback parameters indicate the mouse location in window for relative coordinates when the key gets pressed. Prototype is as given below:

*voidglutKeyboardFunc (void (\*func) (unsigned char key, int x, int y));*

When a new window is created, no keyboard callback is initially registered, and the ASCII keystrokes that are within the output window are ignored. Passing NULL to glutKeyboardFunc disables the generation of keyboard callbacks.