**CHAPTER-6**

**DESCRIPTION AND SNAPSHOTS**

**6.1 DESCRIPTION:**

Before we take up this topic, there we many other practical topics that we were thinking to design using the OpenGL functions. For example DOS Paint shop, Text editors which we would use in our day to day activities. Unfortunately we couldn't take up those topics since we were not able to meet the requirement at this particular stage. This made us to search for a simple and practical topic to design.In beginning we tried to analyze topics that can be designed using simple OpenGL functions. In this way successfully we found many topics, the bascule bridge was one of that.

One of the most famous examples of the bascule type is the Tower Bridge, which spans the River Thames just below London Bridge. It is the most distinctive of London's bridges and its construction was a masterly engineering achievement. The building of the Tower Bridge came about because the development of cross-Thames traffic had far outstripped the capacity of the existing bridges. After selecting this project, the very first step that we did was to note down the possible functions that we would require implementing this scenario.

The very first object that we had to design was a river or water body that was the base for all the remaining objects. The water body was in step by step as mentioned below.We had to make whole display window as river so we filled the display window with blue color using the inbuilt function glColor3f (), once the window was filled with blue color our next step was to make user believe that water is flowing. This was the first real challenge that we faced while developing this project. We thought of drawing some curved lines on the window and make them move in a direction which posturizes water flow in the direction against that of curved lines. So we began to draw the curved lines. But the outcome was not as we assumed. So that left us with the option of going with the straight lines to move on the blue window.

Our next goal was to design the bridge. We had no idea about the way in which the bridge should be designed. So we went through with many examples of designing the