7. GRAPHICS EDITOR

<u>Problem Statement:</u> The Graphics editor provides an Application Programmer's Interface that enables a programmer to develop their own graphical model editor for a specific type of model. This API in turn, relies on extending the Eclipse Graphical Editing Framework to provide an environment in which the editor functions, and the programmer can create a graphical editor and palate of shapes in order to modify an underlying model. The graphical editor provides and interface with which the programmer implements said editor for a given underlying model.

<u>Software Requirements Specifications:</u>

- The graphical editor consists of a graphical document editor which can be used to create new document, delete document, update or view the document.
- The graphical document editor consists of many documents where each document can be saved, opened, printed or create a new one.
- A document is made of many sheets which can have graphics included in them.
- Sheets have multiple number of drawing objects, which can be created, grouped or formatted.
- The programmer must provide implementations of functions that draw objects and their connections as well as functions that add and remove connections. The later functions will be handled by a specific event listener.
- The user can also add and remove connections between these objects as needed using the palate supplied, thus modifying the underlying model.
- Each sheet contains drawing objects, including text, geometric objects and groups. A group is a simply a set of drawing objects.
- A geometrical object includes circle, ellipse, rectangle, lines, squares, trapeziums and quadrilaterals which are identified by their respective constraints.