

## 7. GRAPHICS EDITOR

### 7.1 Problem Statement

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 palette of shapes in order to modify an underlying model, the graphical editor provides an interface with which the programmer implements said editor for a given underlying model. Such instance of the graphical editor allows a user to drag objects from a specified model into a working graphical diagram.

### 7.2 Software Requirement Specification

- 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 up 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 latter function will be handled by a specific
- The user can also add and remove connections between these objects as needed using the palette supplied, thus modifying the underlying model.
- Each sheet contains drawing objects, including text, geometrical objects and groups. A group is simply a set of drawing objects.
- A geometrical object includes circles, ellipse, rectangles, lines and squares, trapeziums which are identified by their respective constraints.