

Project for 60-212 Fall 2005

In this project, you have to write a simple java graphics editor. The editor must allow you to create and manipulate **any number** of geometric shapes. The shapes that you must be able to create are rectangles, squares and circles. The shapes must be displayed on a frame and are allowed to overlap each other if required. It must be possible to carry out the following operations on selected shapes:

- a) Change the colour of selected geometric shapes,
- b) Select one or shape by pressing the left button on shapes
- c) Move one or more selected geometric shape (s) by dragging the shape(s) and
- d) Change the dimensions of selected shapes

To give a command the user has to press the Ctrl key and an alphabetic key at the same time. Each command must be followed by

- i) clicking the left button on shapes that the user wishes to manipulate and
- ii) (only for operations c and d) dragging the mouse.

A brief explanation of the commands is given below.

^B (Change selected shapes to **Blue**) – This command is used to change the colour of selected shapes to blue.

^C (Create a new **C**ircle) – This command is used to create a new black circle in the middle of the frame

^D (**D**rag selected shapes)– This command is used to drag selected shapes to some other location

^G (Change selected shapes to **G**reen) – This command is used to change the colour of selected shapes to green

^M (**M**odify selected shapes)– This command is used to modify selected shapes. The user can drag an edge of selected shapes to change the shape

^R (Create a new **R**ectangle) – This command is used to create a new black rectangle in the middle of the frame

^S (Create a new **S**quare) – This command is used to create a new black square in the middle of the frame

If the user gives an incorrect command or if s/he pressing the left button where there is no space, there must be an exception. There must be some explanation on the frame to help user give the proper commands.

You will be expected to participate in finalizing the details of the project. More details on the project will be discussed during the lecture sessions.