

## Practical 1- August 31st

Topics: 2D Primitives, Callbacks, Drawing and 2D System Coordinates

Activities:

### 1. Complete the code written in **prac1A.cpp**, **prac1b.cpp**, and **prac1C.cpp**

- Prac1A.cpp: It is based on learn how to draw a square centered at window (work space, clipped window) and how to perform a mapping between window and viewport.
- Prac1b.cpp: It is based on understanding geometric primitives to draw a Two-Dimensional Sierpinski fractal.
- Prac1C.cpp: It is focused on understanding geometric primitives and mouse callback.

In the next activities use different background color, window size, view port size, work space size.

### 2. Based on **prac1A**

- a. Draw four 2D Primitives aligned horizontal, aligned vertical, or aligned to first or second diagonal.
- b. Apply a degraded color on two drawn primitives.
- c. Explain why and when use Projection matrix using the flag `GL_Projection`
- d. Explain what does happen if window size is bigger or smaller that viewport

### 3. Based on **prac1b**

- a. Draw the Sierpinski fractal in different orientation.
- b. Change the background color

### 4. Based on **prac1C**

- a. Change the primitive figure (square) and size invoked when mouse is in motion.
- b. Use keystore callback and apply any behaviour on the window.