

Requirements:

Deadline week starting from **Wednesday 17/5 till Thursday 18/5 [in your lab time]**

1. Implement 2D package which contains:

Drop down list for the following Requirements:

- a. Change the background of window to be white
- b. Try to change the shape of your window mouse
- c. User must interact with window using mouse only
- d. Try to make combination between your console and window
- e. Give me option to choose shape color before drawing from menu
- f. Implement item to clear screen from shapes
- g. Implement save function for all data in screen
- h. Implement load function to load data from files
- i. Implement line algorithms [DDA, Midpoint and parametric]
- j. Implement Circle algorithms (Direct, Polar, iterative Polar, midpoint and modified Midpoint)
- k. Filling Circle with lines after taking filling quarter from user
- l. Filling Circle with other circles after taking filling quarter from user
- m. Filling Square with Hermit Curve[Vertical]
- n. Filling Rectangle with Bezier Curve[horizontal]
- o. Convex and Non Convex Filling Algorithm
- p. Recursive and Non Recursive Flood Fill
- q. Cardinal Spline Curve
- r. Ellipse Algorithms [Direct, polar and midpoint]
- s. Clipping algorithms using Rectangle as Clipping Window[Point ,Line, Polygon]
- t. Clipping algorithms using Square as Clipping Window[Point ,Line]

For students only who missed delivering any task in lab [2 marks]

- a. Clipping algorithms using circle as a Clipping Window [Point, Line]

Rules:

- 1- Submission will be in your Lab
- 2- No late submission.
- 3- -10 for copies
- 4- Groups from 3 to 5 students
- 5- Be ready to be asked about each function.
- 6- **For any question, please contact directly to TA in your lab time**