

## Xcos on Browser

### Attempt both Part A and Part B

#### Part A- Xcos on Desktop

1. Create a Java Swing application which will open a frame. Place a label, **Changing Properties**, in the center. When a user right clicks on label, a menu (list) should open with three options. One of them should be **Properties**. When user clicks on **Properties**, a new window/pop up should open up with fields such as **Change Text**, **Change Background color** and **Change Font Color**. User will enter values for the same. Upon clicking on **Submit** button, all changes should reflect on label **Changing Properties**.

2 . Use Java to implement a Student Ranking System (the code must handle each of the mentioned conditions for ranking)

Enter Student details: Roll number, Name, Language 1, Language 2, Math, Science, Environmental Science (for minimum 5 students)

a. Generate the rank for list of students in a class based on total marks.

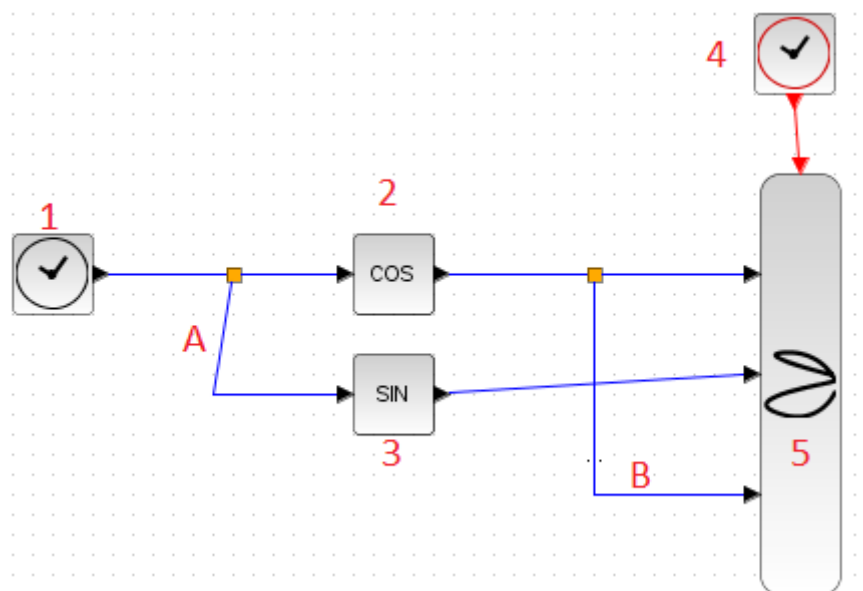
b. If 2 or more students have the same total then prioritize rank based on highest mark with the order of subjects being Math, Science, ES, Language 1 and Language 2

c. If you are unable to filter based on criterion b, then provide rank based on ascending order of Name

d. Use Object Oriented principles to develop the same

#### Part B- Xcos on Web

This is a diagram that has been drawn using Xcos - an open source graphic simulator available with Scilab. The attached file contains each element as a PNG file. Various connections are drawn between these elements.



It has the following elements:

1. A Timer
2. A Cos Block
3. A Sine Block

4. A Clock
5. An Animated Viewer

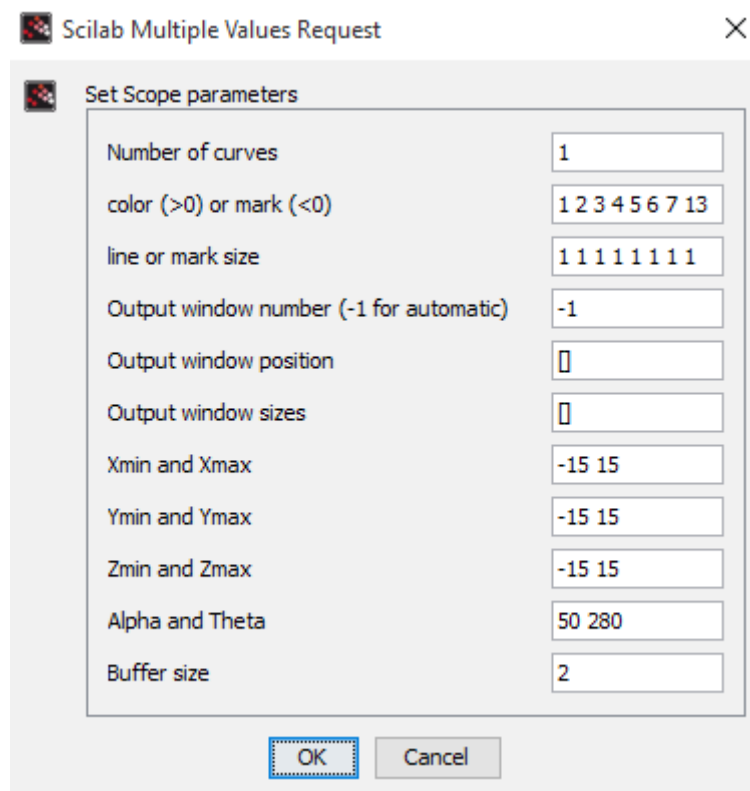
Your job is to replicate to the same diagram in a HTML page using mxGraph. mxGraph is a JavaScript Graph Visualization Component

You can download an evaluation license of mxGraph over here: <https://goo.gl/dRxhCx>. You can find examples on this page: <https://jgraph.github.io>.

It's not necessary to draw a carbon copy of the same image . Creativity is encouraged - Mix and match!

Extra points if you're able to

- Draw the Connections labelled 'A' and 'B'!
- Double Click the Animated Viewer and open a small window asking for inputs similar to this and save it somewhere.



Selection will take place with a focus on correctness, error handling, and programming style.