

# COMP1005/5005 - Practical Test 2

- Within your work area, create a PracTest2 directory to work in.
- Run a web browser in the Virtual Machine and download the code from Blackboard/Assessments and put it in the PracTest2 directory.
- Edit as needed to get it running (to draw two lines on a plot)
- Then complete the four activities below - one mark for each task

1. Use loops and the provided arrays to draw **black vertical lines** and **red horizontal lines** on the plot – making a grid of **numrows** rows and **numcols** columns. Add a **title** to the plot. Use the **plt.annotate** method to put the string (1,1) at coordinates (1,1) on the plot.
2. Add code to have the user enter numRows and numcols, with **validation** that the numbers are between 5 and 20. Add some nested loops to add annotations for all the rows and columns. Make sure row zero is at the top, that (x,y) maps to (r,c) and reduce the fontsize to 8.
3. Use a **scatter** plot to put dots in each row/column – default colours for lines/dots should give a result like the example. Use nested loops or just loop through rows or columns and plot one row/col per loop.
4. Create a list of **three colours** and a list of **four dot sizes**. Update the previous plot to have **black lines** and cycle through the lists of colours/sizes. Use `plt.scatter(xvalues, yvalues, c=colours, s=sizes)`

## 1. README and history

- Record the history of the commands you've used:  
`history > hist.txt`
- Update a README file to include info on your code and images

## 2. Submission and Assessment

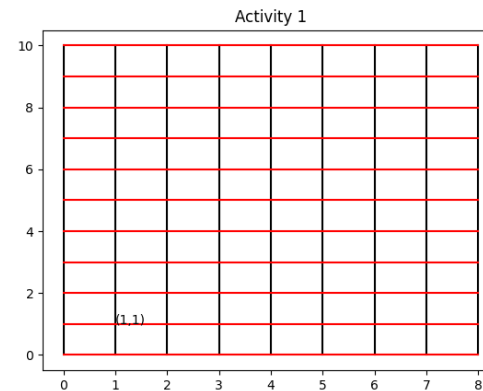
**Ask your tutor to assess your work when complete.**

All of your work should be submitted via Blackboard through the link on the Assessment page. This should be done as a single "zipped" file.

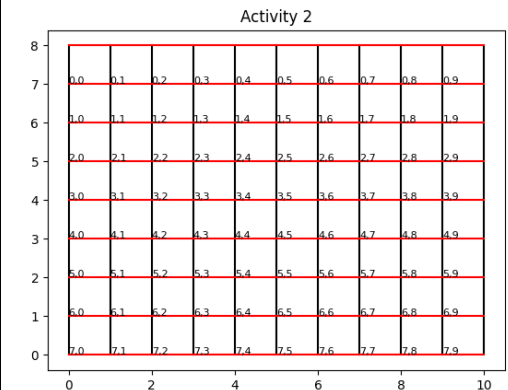
`zip PracTest2_ID *`

**End of Test**

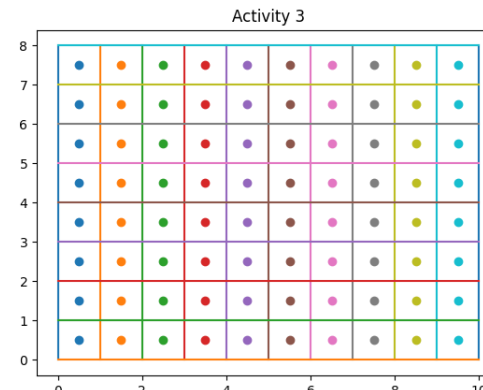
**activity1.py**



**activity2.py**



**activity3.py**



**activity4.py**

