## Drawing Fun with Turtle Simulator

Week 1: 27th July, 2015

1. See the video on getting started. This will help you start the programming problems given below.

## **Programming Problems**

In today's lab, you are expected to complete the first four tasks. The rest should be done by those who finish early. You may not leave the lab before 930pm even if you are done with the first four tasks - keep doing the remaining ones.

- 1. Type in the square drawing program taught in the class and compile and run it. (Estimated Time: 20 mins)
  - a. Open gedit (Text Editor)
  - b. Type in the program exactly as given in the slides (DONT COPY PASTE, IT WILL GIVE SOME PROBLEMS).
  - c. Save the program in a folder named after your roll number, in a file called draw\_square.cpp
  - d. Open a "terminal"
  - e. At the "prompt, type cd <roll\_number> . Then press Enter
  - f. At the prompt type
    Is and press "Enter"
    you should see draw\_square.cpp listed.
  - g. Now type
    - s++ draw\_square.cpp

If all is well you will just see one line of output, else you will see some errors. Fix your program, save the file and try again, or else ask for a TA's help.

h. If all is well type

./a.out

- i. A window with the turtleSimulator will open, with a square in it.
- 2. Similarly, type in the general polygon drawing program, save it in a file draw\_polygon.cpp, compile and run it. (10 mins)

Now modify the program draw\_polygon (save it as draw\_polygon2.cpp), so that it also asks for the side length of the polygon <u>(in addition to asking for the number of sides)</u>. (20 mins)
 In other words it should write the following to the screen:

"Enter the side length: "

And wait for the user to type in the side length. The polygon should be drawn with this as the side length.

4. Draw a sequence of 10 squares just next to each other (touching each other). The program should be in a file called ten\_squares.cpp (30 mins).

## SUBMISSION INSTRUCTIONS ARE GIVEN ON THE ASSIGNMENT PAGE. FOLLOW THOSE AND SUBMIT. CALL A JTA FOR HELP IF REQUIRED.

## If you have extra time

- 5. Draw an 8x8 grid of squares. The program should be in a file called grid.cpp
- 6. Draw the number 8 by drawing two circles on top of each other just touching. The program should be in a file called number\_eight.cpp

\*\*\*\*\*GOOD NIGHT\*\*\*\*\*\*