This assignment counts as the first of three smaller programming assignments. Each is worth 8% of the grade in the class. This can be developed and submitted as a pair assignment, in which case each student must upload all files plus a statement regarding which student was responsible for each section of the work. If pairs divide up the coding, add a comment line giving the name of the student who was responsible for each chunk of code.

* Assignment descriptor: pyDraw
* Read [Thinking Like a Computer Scientist](https://mail.lmu.edu/owa/redir.aspx?C=jhmy8pwbrUuSNLIe7QYsHx2cEUsKK9EIPjjD5nIRFhPx5dYvVocLHozjSklSKt1oqIEY9AvIfgU.&URL=http%3a%2f%2fopenbookproject.net%2fthinkcs%2fpython%2fenglish3e%2fway_of_the_program.html)
  + General Introduction
  + Simple Python Data
  + Debugging Interlude 1
  + Turtle Graphics
* Be familiar with the
  + Python Coding Standards (Python\_coding\_standards.py)
  + Python input/output example (pyInputOutputP3.py)
  + Python error handling example (while\_awaiting\_valid\_input.py)
* Write a program in Python that will:
  + Prompt the user to enter the
    - Desired background color
    - Desired pen color
    - Desired pen width
  + Store the user’s responses in appropriately-named variables.
  + Use the input to set the relevant aspects of the display.
  + Have the turtle draw
    - a polygon with sides of equal length,
    - a circle,
    - a star of some sort, and
    - the first four letters of the first name of each member of the pair
  + The program should use
    - for
    - list
    - range
  + The program can be more elaborate and include additional elements. The colors and pen width can be varied. Creativity is encouraged.
* Hint: Your dialog with the user will return a string, but tess’ pensize method expects its argument to be an int.
* Strategy:
  + Get basic program running, then add features as time permits.
  + Try to do as much as you possibly can
  + But a simple running version is better than no running code at all
* Upload to the assignment as *four* separate files (not a zip file) plus an assignment comment:
  + Program description in a PDF that includes
    - Brief description of what your program does and how it does it
      * Follow the example in Python Resources > Sample submission files
    - Flowchart for your program
  + Python program in a text file with a .py extension
  + README file in an ASCII text (.txt) file that
    - Briefly describes the program
    - Tells the user how to run the program
  + Lessons Learned file: A one paragraph assessment of what you gained from this project, how you would improve it in the future, and how much time you put into the project. This section is meant to critique both the project assignment itself and your execution of the project, and provide information that can be used to improve this assignment in the future. There are no right or wrong answers here. This section is required. Include identifying information, name, assignment, and date, in the UR corner of the first page.
  + Attribution comment
    - Each member of the pair needs to upload to the assignment a comment describing their contribution to the project.
* Self-evaluation checklist:

¨ Python program in a text file with a .py extension

¨ Content

¨ Ask user input for background color, pen color, pen width

¨ Describe for the user the desired format of the input

¨ Check whether the input is appropriate

¨ Convert input as needed integer

¨ Polygon with sides of equal length

¨ Circle

¨ Star of some sort

¨ First four letters of your first name

¨ for

¨ list

¨ range

¨ Presentation

¨ Correct spelling and grammer

¨ File header with history

¨ Comments

¨ Description of your program

¨ Identifying information UR Corner

¨ Follow example in Python Resources > Sample submission files

¨ Dependencies

¨ How it works

¨ Error checking

¨ Constructs used

¨ Possible Improvements

¨ Flowchart for your program

¨ Accurately reflects design

¨ Correctly constructed

¨ Clearly presented

¨ README file

¨ Lessons Learned

¨ Identifying information UR Corner

¨ Assignment comment describing your contribution to the assignment