Python – Flower Garden

Purpose

This lab was designed to reinforce writing and invoking functions with parameters and to introduce students to mouse events.

Description

Create a program that will draw a flower on the screen at the location of each mouse click. The flower pedal colors will be randomly filled(50/50) and will a have random interior and exterior color. turtle.onscreenclick(function) adds a mouse listener and calls the function passing it the x and y location of the mouse click (function takes only 2 arguments – x and y).

Code a function called and draw_leaf(fill). draw_leaf will make a leaf by moving a few steps and turning a few degrees (make sure you iterate for a total of 90°) then turn 90° and repeat. If the fill parameter is true, fill the leaf, otherwise don't fill the leaf.

Moving forward 1 pixel and turning 2 degrees 45 times will draw a quarter of a circle. Notice how opposite corners of the circle above make a leaf.

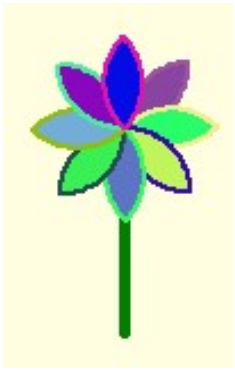
Code a function draw_flower(x, y) that will draw a green stem. Then repeatedly call drawLeaf and turn so that the number of iterations * degrees turned is equal to 360°.

Program Shell

lab_07_garden.py has been provided for you

Sample Execution

Enlarged View of 1 Flower



Lots of Flowers