

Assignment #5

Loops and Functions Using Turtle in Python

Part 1: (Drawing a Star)

Step 1: Problem Analysis.

- a. One would want to create a five-pointed star shape by using turtle graphics, and have the program clear the screen and recreate the star shape when the user clicks the turtle on the screen.
- b. One would need to know how to set up the program to use turtle and the required commands in order to use the turtle graphics to write the program as instructed.

Step 2: Program Design.

1. Bring in the turtle library.
2. Create a variable for the window.
3. Create a variable for your turtle.
4. Create a star function.
5. Set the turtle command to clear the screen.
6. Loop the following commands on the star function five times.
7. Rotate the turtle left 144 degrees.
8. Move the turtle forward 100 units.
9. Create a main function.
10. Call the star function when the user clicks on the turtle.
11. Separately call on the main function.

Step 4: Program Testing.

Average Case(s): As long as the user can be able to click on the turtle on the screen, the program will draw out the star as told.

Extreme Case(s): There is no extreme cases.

Part 2: (Drawing a Name)

Step 1: Problem Analysis.

- a. One would want to create the spelling of one's name by using turtle graphics, and have the program clear the screen and recreate the spelling of one's name when the user clicks the turtle on the screen.
- b. One would need to know how to set up the program to use turtle and the required commands in order to use the turtle graphics to write the program as instructed. Also one would need to know how to spell one's name correctly and also have it legible on by using the turtle graphics.

Step 2: Program Design.

1. Bring in the turtle library.
2. Create a variable for the window.
3. Create a variable for your turtle.
4. Create a name function.

5. Set the turtle command to clear the screen.
6. Set the turtle to write the wanted displayed name.
7. Create a main function.
8. Call the name function when the user clicks on the turtle.
9. Separately call on the main function.

Step 4: Program Testing.

Average Case(s): As long as the user can be able to click on the turtle on the screen, the program will draw out the programmed name as told.

Extreme Case(s): There is no extreme cases.