Python Turtle

Contents

30 Minutes

Python Turtle is a beginner-friendly library for drawing graphics. In this tutorial, we will explore basic Turtle commands with commented code examples.

NOTE: Get creative with Turtle. Use different colors, line thickness, etc. Experiment and have fun!

Tutorial 1: Draw a Square and a Circle

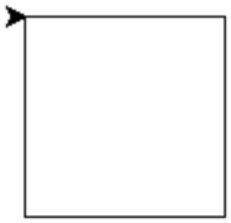
Create a Python file named **square_circle_turtle.py**

```python
# Filename: square.py

import turtle

# Create a Turtle object
t = turtle.Turtle()

# Draw a square
for _ in range(4):
    t.forward(100)  # Move forward by 100 units
    t.right(90)     # Turn right by 90 degrees

# Close the drawing window on click
turtle.exitonclick()
```

In this example, we import the Turtle module, create a Turtle object, and use a loop to draw a square.

- **forward()** moves the Turtle forward
- **right()** turns it right by the specified angle.

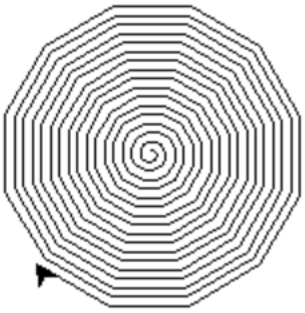
Example run:



Tutorial 2: Spiral Turtle

```python
# Filename: spiral_turtle.py
import turtle

# Create a Turtle object
t = turtle.Turtle()

# Set the speed of the turtle
t.speed(0)  # 0 is the fastest speed

# Set the initial angle and length
angle = 30
length = 1

# Draw the spiral
# Adjust the number of iterations for the desired length
for _ in range(200):
    t.forward(length)
    t.right(angle)
    # Adjust the increment for a tighter or looser spiral
    length += 0.2

# Close the drawing window on click
turtle.exitonclick()
```

Example run:



Assignment 1: Creative Drawing

- Draw a circle using the **circle()** method with a specified radius.
- Change the pen color to red using **pencolor()** and draw a red triangle.
- Draw anything you wish.

Assignment Submission

1. Attach the program files.
2. Attach screenshots showing the successful operation of the program.
3. Submit in Blackboard.