#Introduction

- **Graphics Library** : `turtle` is a built-in Python module used for drawing graphics and creating simple animations.
- **Virtual Canvas** It provides a virtual canvas where you can draw shapes and patterns using a turtle cursor. Think of it as a digital drawing board.
- **Turtle Cursor** The module uses a turtle cursor, which moves around the canvas, leaving a trail (or not, depending on settings), akin to a turtle moving on a surface with a pen attached to it.
- **Commands** You control the turtle's movement and actions using commands like `forward`, `backward`, `left`, `right`, `penup`, `pendown`, etc.
- **Interactive Learning** It's commonly used as a teaching tool for beginners to learn programming concepts like loops, conditionals, and functions in a fun and interactive way.
- **Customization** You can customize the appearance of the turtle cursor, change the pen color, pen size, background color, and more, to create visually appealing graphics.

#Moving Turtle

```
import turtle

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

```
# Move the turtle forward by 100 units
t.forward(100)

# Turn the turtle right by 90 degrees
t.right(90)

# Turn the turtle left by 90 degrees
t.left(90)

# Hide the turtle cursor
t.hideturtle()

# Keep the window open until manually closed
turtle.done()
```

#Drawing different Shapes

```
import turtle

# Create a turtle screen
screen = turtle.Screen()

# Create a turtle
alex = turtle.Turtle()

# Draw a square
for _ in range(4):
    alex.forward(100)
    alex.right(90)

# Close the turtle graphics window when clicked
screen.exitonclick()
```

```
import turtle

# Create a turtle screen
screen = turtle.Screen()

# Create a turtle
alex = turtle.Turtle()

# Draw a triangle
for _ in range(3):
    alex.forward(100)
    alex.left(120)

# Close the turtle graphics window when clicked
screen.exitonclick()
```

```
import turtle

# Create a turtle screen
screen = turtle.Screen()

# Create a turtle
alex = turtle.Turtle()

# Draw a circle
alex.circle(100)

# Close the turtle graphics window when clicked
screen.exitonclick()
```

#Color and BGcolor

```
import turtle

# Create a turtle screen
screen = turtle.Screen()

# Set background color
screen.bgcolor("lightblue")

# Create a turtle
alex = turtle.Turtle()

# Set pen color
alex.color("red")

# Draw a square
for _ in range(4):
    alex.forward(100)
    alex.right(90)

# Close the turtle graphics window when clicked
screen.exitonclick()
```

#Speed method of turtle

```
The speed() method in the turtle module is used to control the

python
Copy code
import turtle

# Create a turtle screen
screen = turtle.Screen()
```

```
# Create a turtle
alex = turtle.Turtle()

# Set the speed of the turtle
alex.speed(1)  # Speed values range from 0 to 10, where 1 is th

# Move the turtle forward by 100 units
alex.forward(100)

# Close the turtle graphics window when clicked
screen.exitonclick()
```