**Task:**

**1)To draw the shapes using Turtle**

The major shapes that are needed to construct the Testbench architecture are square and rectangle. Below is the Python script to draw square and rectangle and also connectivity

**Steps:**

1.Import the turtle library

2.Set the Screen color

3.Instantiate the object for Turtle

4.Set the pen color

5.Move to the desired location(co-ordinate) to draw the shape

6.Use begin\_fill and end\_fill to fill in the shape

Square and rectangle

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import turtle

s=turtle.Screen()

s.bgcolor("light blue")

w = turtle.Turtle()

w.pencolor("black")

w.fillcolor("red")

w.penup() #Pen up before moving to the desired co-ordinate

w.goto(-200,50) #To move the turtle to the co-ordinate(-200,50)

w.pendown() #Pen down to start drawing

w.begin\_fill() #To start filling the color

#To draw a square

for i in range(4):

w.forward(100)

w.left(90)

w.end\_fill()

# To draw rectangle

w.penup()

w.goto(200,50)

w.pendown()

w.fillcolor("green")

w.begin\_fill()

w.forward(100)

w.left(90)

w.forward(200)

w.left(90)

w.forward(100)

w.left(90)

w.forward(200)

w.left(90)

w.end\_fill()

w.hideturtle() #Hide the turtle pointer

Square inside a square

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import turtle

s=turtle.Screen()

s.bgcolor("light blue")

w = turtle.Turtle()

w.pencolor("black")

w.fillcolor("red")

w.penup()

w.goto(-200,50)

w.pendown()

w.begin\_fill()

#To draw a square

for i in range(4):

w.forward(100)

w.left(90)

w.penup()

w.goto(-50,0)

w.pendown()

#To draw a square

for i in range(4):

w.left(90)

w.forward(200)

w.end\_fill()

**Task:**

**2)To draw the connection between 2 squares and to include text**

**Steps:**

1.Import the turtle library

2.Set the Screen color

3.Instantiate the object for Turtle

4.Set the pen color

5.Move to the desired location(co-ordinate) to draw the shape

6.Use begin\_fill and end\_fill to fill in the shape

7.Move to the centre of the square to draw the arrow head

8.Write the text at the centre of the turtle pointer

Connecting 2 squares with an arrow head and including text

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import turtle

s=turtle.Screen()

s.bgcolor("light blue")

w = turtle.Turtle()

w.pencolor("black")

w.fillcolor("red")

w.penup()

w.goto(-200,0)

w.pendown()

w.begin\_fill()

#To draw a square

for i in range(4):

w.forward(100)

w.left(90)

w.penup()

w.goto(100,0)

w.pendown()

#To draw a square

for i in range(4):

w.forward(100)

w.left(90)

w.end\_fill()

w.penup()

w.goto(-100,50)

w.pendown()

w.forward(200)

#To draw the arrow head

w.left(45)

w.backward(10)

w.forward(10)

w.right(90)

w.backward(10)

#To write the text

w.penup()

w.goto(0,50)

w.pendown()

w.write("connect",align="center") #write the text in centre of the turtle pointer

w.hideturtle()