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**Instructions:**

Assignment 2 Snowman

**Part I – python code**

import turtle ## Import turtle module

wn = turtle.Screen() ## Create a graphics window

wn.bgcolor("blue") ## Sets background color of window

tom = turtle.Turtle() ## Create a turtle named tom

tom.speed(0) ## Set tom's speed

tom.hideturtle() ## Hide tom from view

## Reposition tom

tom.up()

tom.goto(0,-250)

tom.down()

## Bottom circle loop and color fill

tom.color("white")

tom.begin\_fill()

for i in range(313):

tom.forward(2)

tom.left(1.15)

tom.end\_fill()

## Black outline loop

tom.color("black")

for i in range(313):

tom.forward(2)

tom.left(1.15)

## Reposition tom

tom.up()

tom.goto(0,-50)

tom.down()

## Middle circle loop and color fill

tom.color("white")

tom.begin\_fill()

for i in range(313):

tom.forward(1.5)

tom.left(1.15)

tom.end\_fill()

## Black outline loop

tom.color("black")

for i in range(313):

tom.forward(1.5)

tom.left(1.15)

## Reposition tom

tom.up()

tom.goto(0,100)

tom.down()

## Top circle loop and color fill

tom.color("white")

tom.begin\_fill()

for i in range(313):

tom.forward(1.1)

tom.left(1.15)

tom.end\_fill()

## Black outline loop

tom.color("black")

for i in range(313):

tom.forward(1.1)

tom.left(1.15)

## Reposition tom, starting at left eye

tom.up()

tom.goto(-24, 170)

## Draw eyes

tom.color("black")

tom.dot(17)

tom.goto(24,170)

tom.dot(17)

## Reposition tom for nose

tom.goto(-15, 160)

## Draw nose

tom.color("orange")

tom.begin\_fill()

for i in [0,1,2]:

tom.forward(30)

tom.right(120)

tom.end\_fill()

## Reposition tom for buttons

tom.goto(0,60)

## Draw buttons

tom.color("red")

tom.dot(17)

tom.goto(0,40)

tom.dot(17)

tom.goto(0,20)

tom.dot(17)

tom.goto(0,0)

tom.dot(17)

## Reposition tom for left arm

tom.goto(-75,30)

## Draw left arm

tom.color("black")

tom.pensize(6)

tom.down()

tom.right(180)

tom.forward(100)

tom.pensize(3)

tom.left(45)

tom.forward(15)

tom.backward(15)

tom.right(90)

tom.forward(15)

tom.up()

## Reposition tom for right arm

tom.goto(75,30)

## Reset tom's direction to default

tom.setheading(0)

## Draw right arm

tom.pensize(6)

tom.down()

tom.forward(100)

tom.pensize(3)

tom.left(45)

tom.forward(15)

tom.backward(15)

tom.right(90)

tom.forward(15)

tom.up()

## Reposition tom for top hat

tom.goto(-60,200)

## Reset tom's direction to default

tom.setheading(0)

## Draw top hat

tom.down()

tom.pensize(7)

tom.color("black")

tom.begin\_fill()

tom.forward(120)

tom.left(90)

tom.forward(10)

tom.left(90)

tom.forward(30)

tom.right(90)

tom.forward(40)

tom.left(90)

tom.forward(60)

tom.left(90)

tom.forward(40)

tom.right(90)

tom.forward(30)

tom.left(90)

tom.forward(10)

tom.end\_fill()

tom.up()

## Reposition tom for tree trunk

tom.goto(-220,-135)

## Reset tom's direction to default

tom.setheading(0)

## Draw tree trunk

tom.color("brown")

tom.begin\_fill()

for i in [0,1,2,3]:

tom.forward(35)

tom.right(90)

tom.end\_fill()

## Draw body of tree

tom.color("Green")

tom.backward(35)

tom.begin\_fill()

for i in [0,1,2]:

tom.forward(105)

tom.left(120)

tom.end\_fill()

**Part I – screen shot of sample run**

