Metropolitan State University, Saint Paul, Minnesota

ICS 140 Computational Thinking with Programming

Lab 10

**Drawing a list of coordinates**

Create a function called draw\_coordinate\_list(). This function should accept a 2-dimensional list as an argument. Each of the inner lists will represent x,y coordinates to be drawn using the turtle library. Iterate through the coordinate list and have the turtle draw a line through each coordinate. Fill the shape in black and give it a yellow background.

Call the function with the provided list below:

coordinate\_list = [[120,80],[180,160],[380,140],[400,100],[340,80],[320,0],[230,-20],[200,-100],[100,-80],[40,-100],[40,-180],[20,-140],[0,-160],[-20,-140],[-40,-180],[-40,-100],[-100,-80],[-200,-100],[-230,-20],[-320,0],[-340,80],[-400,100],[-380,140],[-180,160],[-120,80],[-30,60],[-30,80],[-40,120],[-20,100],[-10,80],[10,80],[20,100],[40,120],[30,80],[30,60],[120,80]]

Copy the python code in the section below.

**Python Code**

*import* turtle

al = turtle.Turtle()

coordinate\_list = [[120,80],[180,160],[380,140],[400,100],[340,80],[320,0],[230,-20],[200,-100],[100,-80],[40,-100],[40,-180],[20,-140],[0,-160],[-20,-140],[-40,-180],[-40,-100],[-100,-80],[-200,-100],[-230,-20],[-320,0],[-340,80],[-400,100],[-380,140],[-180,160],[-120,80],[-30,60],[-30,80],[-40,120],[-20,100],[-10,80],[10,80],[20,100],[40,120],[30,80],[30,60],[120,80]]

def draw\_coordinate\_list(*coordinates*):

al.pendown()

al.begin\_fill()

*for* coords *in* *coordinates*:

x,y = coords

al.goto(x,y)

al.end\_fill()

draw\_coordinate\_list(coordinate\_list)

turtle.done()

Take a screenshot of the drawing

**Drawing Screenshot**

**A picture containing shape

Description automatically generated**