**Part B: Install and Develop Simple Programs in Python**

**Step #1: Run a Python program**

// Printing the output “Hello World”

message = "hello";

print(message+" world");

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// Creating new variables by printing three values

x = input(“enter your name: “)

y = int(input(“enter an int: “))

z = float(input(“enter a float: “))

print (x,y,z)

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**Step #2:  User Input with Conditionals**

**//** Add user input and conditionals to your script

x = input("enter your name: ")

y = int(input("enter an int: "))

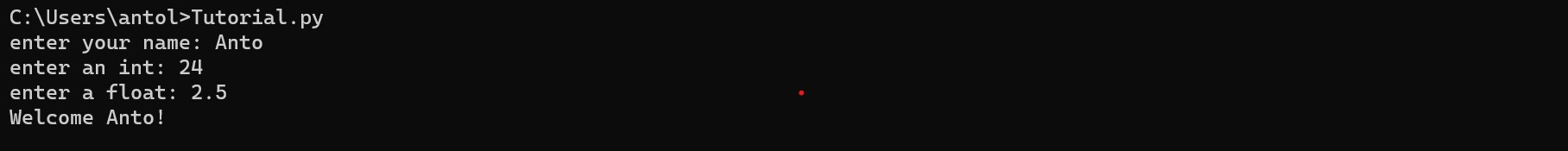
z = float(input("enter a float: "))

if x == 'Anto':

print ('Welcome Anto!')

else:

print ('Welcome earthling!')



**Step #3: Using Loops**

// Incorporate `for` and `while` loops into your script

x = input("enter your name: ")

y = int(input("enter an int: "))

z = float(input("enter a float: "))

if x == 'Anto':

print ('Welcome Anto!')

else:

print ('Welcome earthling!')

for i in range(0, y):

print(i, z)

while x != 'Anto':

x = input("enter your name a second time: ")

print('Welcome Anto!')

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**Step #4: Defining Functions**

**//** Define and use functions in your script.

x = input("enter your name: ")

y = int(input("enter an int: "))

z = float(input("enter a float: "))

def get\_name():

myname = input("enter your name a third time (using quotes): ")

return myname

name = get\_name()

print('Welcome' + name)

def print\_one\_greater(x):

print(x + 1)

print\_one\_greater(y)

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**Step #5: Working with Lists**

// Implement list usage in your script

months = ['jan', 'feb', 'mar', 'apr', 'may', 'jun', 'jul', 'aug', 'sep', 'oct', 'nov', 'dec']

for i, month in enumerate(months, start=1):

print(i, month)

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**Step #6: Utilizing Dictionaries**

**//** Utilize dictionaries in your script

months = ['jan', 'feb', 'mar', 'apr', 'may', 'jun', 'jul','aug', 'sep', 'oct', 'nov',

'dec']

months2 = {'jan': 'January', 'feb': 'Febuary', 'mar': 'March','apr': 'April', 'may':

'May', 'jun': 'June','jul': 'July','aug': 'August', 'sep': 'September', 'oct':

'October', 'nov':

'November', 'dec': 'December'}

months2['feb'] = 'February'

for i, month in enumerate(months, start=1):

print(i, months2[month])

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**Step #7: File Input**

**//** Create a new dataset file, `data.txt`, with the provided values Read and print the file’s content accordingly

with open("data.txt", "w") as f:

f.write("-1\n")

f.write("0\n")

f.write("1\n")

f.write("2\n")

f.write("3\n")

f.write("4\n")

f.write("5\n")

filename = "data.txt"

with open(filename) as fin:

content = fin.read().splitlines()

print(content)

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**Step #8: File Output**

// Write the converted Celsius to Fahrenheit values to a new output file, `data2.txt`

with open("data.txt", "w") as f:

f.write("-1\n")

f.write("0\n")

f.write("1\n")

f.write("2\n")

f.write("3\n")

f.write("4\n")

f.write("5\n")

filename = "data.txt"

with open(filename) as fin:

content = fin.read().splitlines()

print(content)

fout = open("data2.txt", "w")

for line in content:

celsius = float(line)

fahrenheit = (celsius \* 9 / 5) + 32

fout.write(str(fahrenheit) + "\n")

print(fahrenheit)

fout.close()

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**Step #9: Optional - Celsius to Fahrenheit Converter**

**//** Convert Celsius to Fahrenheit one line at a time

with open("data.txt") as fin:

for line in fin:

celsius = float(line)

fahrenheit = (celsius \* 9 / 5) + 32

print(fahrenheit)

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