**PYTHON FOR ANALYTICS ASSIGNMENT**

**[DS7A-707]**

WEEK-1

**MASTER OF TECHNOLOGY**

In

**DATA SCIENCE**

***Submitted by***

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***Submitted To***

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**Indore (M.P.)**

## Program to check whether the given number is even or not.

***Code#***

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| *""" Created on Sat Sep 10 16:31:57 2022  @author: Rahul Sharma M.Tech (Data Science) """* '''Program to check Whether the number is Even or Odd'''  n = input("Enter a number : ") x = int(n)%2 if x == 0:  print(" Even ") else:  print(" odd ") |

***Output:***

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| C:\Users\rjrah\AppData\Local\Programs\Python\Python310\python.exe "C:\Users\rjrah\PycharmProjects\PFA Week-1 Assign\Even or Odd.py"  Enter a number : 3  odd  Process finished with exit code 0 |

## Program to convert the temperature in degree centigrade to Fahrenheit.

***Code#***

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| *""" Created on Sat Sep 10 16:34:41 2022  @author: Rahul Sharma M.Tech (Data Science) """* '''program to convert the temperature in degree centigrade to Fahrenheit'''  c = input(" Enter temperature in Centigrade: ") f = (9\*(int(c))/5)+32 print(" Temperature in Fahrenheit is: ", f) |

***Output***:

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| C:\Users\rjrah\AppData\Local\Programs\Python\Python310\python.exe "C:\Users\rjrah\PycharmProjects\PFA Week-1 Assign\Centigrade to Fahrenheit.py"  Enter temperature in Centigrade: 37  Temperature in Fahrenheit is: 98.6  Process finished with exit code 0 |

## Program to find the area of a triangle whose sides are given.

***Code#***

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| *""" Created on Sat Sep 10 16:36:14 2022  @author: Rahul Sharma M.Tech (Data Science) """* '''Program to find Area of Triangle'''   import math a = float(input("Enter the length of side a: ")) b = float(input("Enter the length of side b: ")) c = float(input("Enter the length of side c: ")) s = (a+b+c)/2 area = math.sqrt(s\*(s-a)\*(s-b)\*(s-c)) print(" Area of the triangle is: ", area) |

***Output***:

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| C:\Users\rjrah\AppData\Local\Programs\Python\Python310\python.exe "C:\Users\rjrah\PycharmProjects\PFA Week-1 Assign\area of a triangle.py"  Enter the length of side a: 3  Enter the length of side b: 4  Enter the length of side c: 5  Area of the triangle is: 6.0  Process finished with exit code 0 |

## Program to find out the average of a set of integers.

***Code#***

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| *""" Created on Sat Sep 10 16:37:48 2022  @author: Rahul Sharma M.Tech (Data Science) """* '''program to find out the average of a set of integers'''  count = int(input("Enter the count of numbers: ")) i = 0 sum = 0 for i in range(count):  x = int(input("Enter an integer: "))  sum = sum + x avg = sum/count print(" The average is: ", avg) |

***Output***:

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| --- |
| C:\Users\rjrah\AppData\Local\Programs\Python\Python310\python.exe "C:\Users\rjrah\PycharmProjects\PFA Week-1 Assign\average of a set of integers.py"  Enter the count of numbers: 5  Enter an integer: 7  Enter an integer: 6  Enter an integer: 4  Enter an integer: 2  Enter an integer: 9  The average is: 5.6  Process finished with exit code 0 |

## Program to find the product of a set of real numbers.

***Code#***

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| *""" Created on Sat Sep 10 16:39:46 2022  @author: Rahul Sharma M.Tech (Data Science) """* '''program to find the product of a set of real numbers'''  i = 0 product = 1 count = int(input("Enter the number of real numbers: ")) for i in range(count):  x = float(input("Enter a real number: "))  product = product \* x print("The product of the numbers is: ", product) |

***Output***:

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| --- |
| C:\Users\rjrah\AppData\Local\Programs\Python\Python310\python.exe "C:\Users\rjrah\PycharmProjects\PFA Week-1 Assign\product of a set of real numbers.py"  Enter the number of real numbers: 5  Enter a real number: 6  Enter a real number: 4  Enter a real number: 5  Enter a real number: 1  Enter a real number: 2  The product of the numbers is: 240.0  Process finished with exit code 0 |

## Program to find the circumference and area of a circle with a given radius.

***Code#***

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| --- |
| *""" Created on Sat Sep 10 16:43:40 2022  @author: Rahul Sharma M.Tech (Data Science) """* '''program to find the circumference and  area of a circle with a given radius'''  import math r = float(input("Input the radius of the circle: ")) c = 2 \* math.pi \* r area = math.pi \* r \* r print("The circumference of the circle is: ", c) print("The area of the circle is: ", area) |

***Output***:

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| --- |
| C:\Users\rjrah\AppData\Local\Programs\Python\Python310\python.exe "C:\Users\rjrah\PycharmProjects\PFA Week-1 Assign\circumference and area of a circle.py"  Input the radius of the circle: 6  The circumference of the circle is: 37.69911184307752  The area of the circle is: 113.09733552923255  Process finished with exit code 0 |

## Program to check whether the given integer is a multiple of 5.

***Code#***

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| --- |
| *""" Created on Sat Sep 10 16:44:02 2022  @author: Rahul Sharma M.Tech (Data Science) """* '''program to check whether the given integer is a multiple of 5''' number = int(input("Enter an integer: ")) if(number%5==0):  print(number, "is a multile of 5") else:  print(number, "is not a multiple of 5") |

***Output***:

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| --- |
| C:\Users\rjrah\AppData\Local\Programs\Python\Python310\python.exe "C:\Users\rjrah\PycharmProjects\PFA Week-1 Assign\multiple of 5.py"  Enter an integer: 7  7 is not a multiple of 5  Process finished with exit code 0 |

## Program to check whether the given integer is a multiple of both 5 and 7.

***Code#***

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| --- |
| *""" Created on Sat Sep 10 16:44:19 2022  @author: Rahul Sharma M.Tech (Data Science) """* '''program to check whether the given integer is a multiple of both 5 and 7'''  number = int(input("Enter an integer: ")) if((number%5==0)and(number%7==0)):  print(number, "is a multiple of both 5 and 7") else:  print(number, "is not a multiple of both 5 and 7") |

***Output***:

|  |
| --- |
| C:\Users\rjrah\AppData\Local\Programs\Python\Python310\python.exe "C:\Users\rjrah\PycharmProjects\PFA Week-1 Assign\multiple of both 5 and 7.py"  Enter an integer: 35  35 is a multiple of both 5 and 7  Process finished with exit code 0 |

## Program to find the average of 10 numbers using while loop.

***Code#***

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| --- |
| *""" Created on Sat Sep 10 16:44:52 2022  @author: Rahul Sharma M.Tech (Data Science) """* '''program to find the average of 10 numbers using while loop''' count = 0 sum = 0.0 while(count<10):  number = float(input("Enter a real number: "))  count=count+1  sum = sum+number avg = sum/10; print("Average is :",avg) |

***Output***:

|  |
| --- |
| C:\Users\rjrah\AppData\Local\Programs\Python\Python310\python.exe "C:\Users\rjrah\PycharmProjects\PFA Week-1 Assign\average of 10 numbers using while loop.py"  Enter a real number: 5  Enter a real number: 6  Enter a real number: 4  Enter a real number: 1  Enter a real number: 2  Enter a real number: 5  Enter a real number: 9  Enter a real number: 8  Enter a real number: 3  Enter a real number: 2  Average is : 4.5  Process finished with exit code 0 |

## 10. Program to display the given integer in reverse manner.

***Code#***

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| --- |
| *""" Created on Sat Sep 10 16:44:56 2022  @author: Rahul Sharma M.Tech (Data Science) """* '''program to display the given integer in reverse manner'''  number = int(input("Enter a positive integer: ")) rev = 0 while(number!=0):  digit = number%10  rev = (rev\*10)+digit  number = number//10 print(rev) |

***Output***:

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| --- |
| C:\Users\rjrah\AppData\Local\Programs\Python\Python310\python.exe "C:\Users\rjrah\PycharmProjects\PFA Week-1 Assign\integer in reverse manner.py"  Enter a positive integer: 786  687  Process finished with exit code 0 |