

# Assignment - 6 Decision Control

September 4, 2022

## 1 Question 1. Write a python script to check whether a given number is positive or non-positive.

```
[1]: number = int(input("Please,Enter a number "))

if number > 0:
    print("Entered number {} is a Positive number".format(number))
else:
    print("Entered number {} is a Negative number".format(number))
```

Please,Enter a number 4  
Entered number 4 is a Positive number

## 2 Question 2. Write a python script to check whether a given number is divisible by 5 or not.

```
[2]: number = int(input("Please,Enter a number "))

if number % 5 == 0:
    print("Entered number {} is divisible by 5".format(number))
else:
    print("Entered number {} is not divisible by 5".format(number))
```

Please,Enter a number 36  
Entered number 36 is not divisible by 5

## 3 Question 3. Write a python script to check whether a given number is even or odd.

### 4 Approach 1

```
[3]: number = int(input("Please,Enter a number "))

if number % 2 == 0:
    print("Entered number {} is a even number".format(number))
else:
```

```
print("Entered number {} is a odd number".format(number))
```

Please,Enter a number 78  
Entered number 78 is a even number

## 5 Approach 2

```
[4]: number = int(input("Please,Enter a number "))

if number & 1 == 0:
    print("Entered number {} is a even number".format(number))
else:
    print("Entered number {} is a odd number".format(number))
```

Please,Enter a number 95  
Entered number 95 is a odd number

## 6 Question 4. Write a python script to print greater between two numbers. Print number only once even if the numbers are the same.

```
[5]: number_1 = int(input("Please,Enter the first number "))
number_2 = int(input("Please,Enter the second number "))

print("The two entered numbers are {} and {}".format(number_1,number_2))

if number_1 >= number_2:
    print("Greater number between two entered number is",number_1)
else:
    print("Greater number between two entered number is",number_2)
```

Please,Enter the first number 14  
Please,Enter the second number 56  
The two entered numbers are 14 and 56  
Greater number between two entered number is 56

## 7 Question 5. Write a python script to print two given words in dictionary order.

```
[6]: word_1 = input("Please,Enter the first word ")
word_2 = input("Please,Enter the second word ")

print("The two entered words are {} and {}".format(word_1,word_2))

if word_1 > word_2:
```

```

    print("Two entered words in dictionary order as {} and {}".
↪format(word_2,word_1))
else:
    print("Two entered words in dictionary order as {} and {}".
↪format(word_1,word_2))

```

Please,Enter the first word Ant  
Please,Enter the second word Bat  
The two entered words are Ant and Bat  
Two entered words in dictionary order as Ant and Bat

## 8 Question 6. Write a python script to check whether a given number is a three digit number or not.

```

[7]: number = int(input("Please,Enter a number "))

if 99 < number < 1000:
    print("Entered number {} is a three digit number".format(number))
else:
    print("Entered number {} is not a three digit number".format(number))

```

Please,Enter a number 469  
Entered number 469 is a three digit number

## 9 Question 7. Write a python script to check whether a given number is positive, negative or zero.

```

[8]: number = int(input("Please,Enter a number "))

if number > 0:
    print("Entered number {} is a Positive number".format(number))
elif number < 0:
    print("Entered number {} is a Negative number".format(number))
else:
    print("Entered number {} is equal to zero".format(number))

```

Please,Enter a number 0  
Entered number 0 is equal to zero

10 Question 8. Write a python script to check whether a given quadratic equation has two real & distinct roots, real & equal roots or imaginary roots.

```
[9]: coefficient_of_x2 = int(input("Please,Enter the value of coefficient of x2 "))
coefficient_of_x = int(input("Please,Enter the value of coefficient of x "))
constant_term = int(input("Please,Enter the value of the constant "))

value_of_discriminant = ((coefficient_of_x ** 2) - (4 * coefficient_of_x2 *
↵constant_term))

if value_of_discriminant > 0:
    print("Roots of the quadratic equation are real and distinct.")
elif value_of_discriminant < 0:
    print("Roots of the quadratic equation are imaginary.")
else:
    print("Roots of the quadratic equation are real and equal.")
```

```
Please,Enter the value of coefficient of x2 5
Please,Enter the value of coefficient of x 6
Please,Enter the value of the constant 2
Roots of the quadratic equation are imaginary.
```

11 Question 9. Write a python script to check whether a given year is a leap year or not.

```
[10]: year = int(input("Please,Enter the first number "))

if(year % 400 == 0 or year % 4 == 0 and year % 100 != 0):
    print("{} is a Leap year".format(year))
else:
    print("{} is not a Leap year".format(year))
```

```
Please,Enter the first number 1900
1900 is not a Leap year
```

12 Question 10. Write a python script to print greater among three numbers. Print number only once even if the numbers are the same.

```
[11]: number_1 = int(input("Please,Enter the first number "))
number_2 = int(input("Please,Enter the second number "))
number_3 = int(input("Please,Enter the third number "))
```

```

print("The three entered numbers are {} , {} and {}".
      ↪format(number_1,number_2,number_3))

if(number_1 >= number_2 and number_1 >= number_3):
    print("Greater number between three entered number is",number_1)
elif(number_1 <= number_2 and number_2 >= number_3):
    print("Greater number between three entered number is",number_2)
else:
    print("Greater number between three entered number is",number_3)

```

Please,Enter the first number 4569  
Please,Enter the second number 4125  
Please,Enter the third number 193  
The three entered numbers are 4569 , 4125 and 193  
Greater number between three entered number is 4569

### 13 Question 11. Write a python script to take the month value in numeric format and display the number of days in it.

```

[12]: month_number = int(input("Please,Enter the number of the month "))

if month_number in [1,3,5,7,8,10,12]:
    print("Month {} has 31 Days".format(month_number))
elif month_number in [4,6,9,11]:
    print("Month {} has 30 Days".format(month_number))
elif month_number == 2:
    print("Month {} has either 28 or 29 Days".format(month_number))
else:
    print("Invalid Month Number")

```

Please,Enter the number of the month 9  
Month 9 has 30 Days

### 14 Question 12. Write a python script to accept one complex number from the user and display the greater number between real part and imaginary part

```

[13]: complex_number = complex(input("Please,Enter a complex number "))
print("Your entered complex number is",complex_number)

if(complex_number.real > complex_number.imag):
    print("Greater part of the complex number is",complex_number.real)
else:
    print("Greater part of the complex number is",complex_number.imag)

```

Please,Enter a complex number 4+5J

Your entered complex number is  $(4+5j)$   
Greater part of the complex number is 5.0