



AMC ENGINEERING COLLEGE

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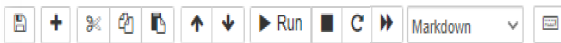
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Assignment 1 PYTHON

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Submitted by:

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1. Develop a program to find whether the given number is even or odd

```
In [1]: num = int(input("Enter any number to test whether it is odd or even:"))
if(num % 2)==0:
    print("The number is even")
else:
    print("The number is odd")
```

Enter any number to test whether it is odd or even:4
The number is even

```
In [2]: num = int(input("Enter any number to test whether it is odd or even:"))
if(num % 2)==0:
    print("The number is even")
else:
    print("The number is odd")
```

Enter any number to test whether it is odd or even:7
The number is odd



2. Develop a program to find whether the given number is positive or negative

```
In [1]: a=int(input("Enter a number:"))
if a>0:
    print("The number entered is positive number ")
else:
    print("The number entered is negative number ")
```

Enter a number:8
The number entered is positive number

```
In [2]: a=int(input("Enter a number:"))
if a>0:
    print("The number entered is positive number ")
else:
    print("The number entered is negative number ")
```

Enter a number:-6
The number entered is negative number



3. Develop a program to find whether the given number is prime or not

```
In [1]: num = 17
if num > 1:
    for i in range (2, int(num/2)+1):
        if(num % i)==0:
            print(num, "is a prime number")
            break;
        else:
            print(num, "is not a prime number")
else:
    print(num, "is not a prime number")
```

17 is a prime number

In []:



4. Develop a program to check if a string is a Palindrome or not Palindrome

```
In [2]: n = input("Enter a string:")
if n == n[::-1]:
    print(n+ " is a palindrome")
else:
    print(n+ " is not a palindrome")
```

Enter a string:madam
madam is a palindrome

```
In [3]: n = input("Enter a string:")
if n == n[::-1]:
    print(n+ " is a palindrome")
else:
    print(n+ " is not a palindrome")
```

Enter a string:new
new is not a palindrome



5.SUM OF TWO NUMBERS

```
In [1]: num1 = 500
num2 = 700
sum = num1 + num2
print("The sum of", num1, "and", num2, "is",sum)
```

The sum of 500 and 700 is 1200



6. Develop a program to find sum of two numbers using functions

```
In [2]: def sum(a,b):
        return a+b
a=int(input("Enter the num1 :"))
b=int(input("Enter the num2 :"))
c=sum(a,b)
print("The sum of", a, "and", b, "is",c)
```

Enter the num1 :480

Enter the num2 :360

The sum of 480 and 360 is 840



7. Develop a program to find maximum of two numbers

```
In [1]: def max(a,b):
        if a>b:
            return a
        else:
            return b

a=600
b=400
print(max(a,b))
```

600



8. Develop a program to find minimum of two numbers

```
In [1]: def min(a,b):
        if a<b:
            return a
        else:
            return b

a=100
b=300
print(min(a,b))
```

100

9. Develop a program to find fibonacci sequence

```
In [1]: nterms = int(input("How many terms? "))
n1, n2 = 0, 1
count = 0
if nterms <= 0:
    print("Please enter a positive integer")
elif nterms == 1:
    print("Fibonacci sequence upto",nterms,":")
    print(n1)
else:
    print("Fibonacci sequence:")
    while count < nterms:
        print(n1)
        nth = n1 + n2
        n1 = n2
        n2 = nth
        count += 1
```

```
How many terms? 8
Fibonacci sequence:
0
1
1
2
3
5
8
13
```

Activate Windows
Go to Settings to activate Windows.

10. Develop a program to find factorial of a number

```
In [1]: def factorial(n):
        return 1 if (n==1 or n==0) else n * factorial(n-1)
num = 8
print("Factorial of", num,"is",factorial(num))
```

```
Factorial of 8 is 40320
```



11. Develop a program to find GCD of two numbers

```
In [1]: num1 = 40
num2 = 100
gcd = 1
for i in range(1, min(num1, num2)):
    if num1 % i == 0 and num2 % i == 0:
        gcd = i
print("GCD of", num1, "and", num2, "is", gcd)
```

GCD of 40 and 100 is 20



12. Develop a program to swap two numbers

```
In [3]: a = 8
b = 6
print("Before swapping: ")
print("Value of a : ", a, "and b : ", b)

a, b = b, a

print("After swapping: ")
print("Value of a : ", a, "and b : ", b)
```

Before swapping:
Value of a : 8 and b : 6
After swapping:
Value of a : 6 and b : 8

13. Develop a program to reverse number in string

```
In [1]: def reverse(s):
        str = ""
        for i in s:
            str = i + str
        return str

s = "Geeksforgeeks"

print("The original string is : ", end="")
print(s)

print("The reversed string(using loops) is : ", end="")
print(reverse(s))
```

The original string is : Geeksforgeeks
The reversed string(using loops) is : skeegrofseeG

14. Develop a program to guess number using random

```
In [1]: import random
n = random.randrange(1,10)
guess = int(input("Enter any number: "))
while n!= guess:
    if guess < n:
        print("Too low")
        guess = int(input("Enter number again: "))
    elif guess > n:
        print("Too high!")
        guess = int(input("Enter number again: "))
    else:
        break
print("you guessed it right!!")
```

Enter any number: 4
Too low
Enter number again: 6
Too low
Enter number again: 7
Too low
Enter number again: 8
Too low
Enter number again: 9
you guessed it right!!