BASICS OF PYTHON PROGRAMMING

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1.Write a program to print Hello World.

\# This program prints Hello, world!

print('Hello, world')

```
Hello, world!

In [2]:
```

2. Write a program to add two numbers and print Their sum.

```python
# Store input numbers num1 = input('Enter first number: ') num2 = input('Enter second number: ')

# Add two numbers
sum = float(num1) + float(num2)

# Display the sum
print('The sum of two numbers is',sum)
```

```
Enter first number: 56

Enter second number: 44
The sum of two numbers is 100.0

In [3]:
```

3. Write a program to perform calculation through different operators.

```python
num1=int(input("Enter  first  number:  "))
num2=int(input("Enter second number: "))
ch=int(input("Enter   1A,2S,3M,4D,5R:   "))
```

```python
sum=difference=quotient=modulo=0
if(ch==1):
    sum=num1+num2
    print("SUM=",sum)
elif(ch==2):
    difference=num1-num2
    print("DIFFERENCE=",difference)
elif(ch==3):
    product=num1*num2
    print("PRODUCT=",product)
elif(ch==4):
    quotient=num1//num2
    print("QUOTIENT=",quotient)
else:
    modulo=num1%num2
    print("MODULO=",modulo)
```

4.Write a program to check number is even odd.

```
Enter first number: 8

Enter second number: 2

Enter 1A,2S,3M,4D,5R: 3
PRODUCT= 16

In [3]:
```

```
num=int(input("Enter any number."))
#Checking  number  odd  or  even
if(num%2==0):
    print(num," Is an even number.",)
else:
    print(num,"Isan odd number.")
```

```
Enter any number.7
7 Is an odd number.

In [2]:
```

5.Write a program to check number is prime or not.

```
n=int(input("Enter any
number.")) fs=0 i=2
while(i<(n//2)):
```

```
    if(n%i==0):
        fs+=1
        break
    i+=1
  if(fs==0):
    print(n," IS AN PRIME NUMBER.")
  else:
    print(n," IS NOT AN PRIME NUMBER.")
```

```
Enter any number.6
6  IS NOT AN PRIME NUMBER.
```

6.Write a program to check number is armstrong or not.

```
n=int(input("Enter any number."))
d=sd=0 org=n
while(n>0):
d=n%10
sd=sd+(d*d*d)
n//=10
```

```
Enter any number.7
7  IS AN PRIME NUMBER.
```

```python
if(sd==org):
    print(org,"Is an armstrong number.")
else:
    print(org,"Is not an armstrong number.")
```

```
Enter any number.153
153 Is an armstrong number.
```

```
Enter any number.789
789 Is not an armstrong number.
```

7.Write a program to print alphabets using ascii values.

```python
#Ascii    value    evaluation
print("Capital Alphabets:")
for i in range(65,91):
    if(i==90):
        print(chr(i),end='\n')
    else:
        print(chr(i),end=' ')
```

```
print("LowerCase Alphabets:")
for    i    in    range(97,123):
print(chr(i),end=' ')
```

```
Capital Alphabets:
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
LowerCase Alphabets:
a b c d e f g h i j k l m n o p q r s t u v w x y z
```

8.Write a program to check entered character is vowel or not.

```
ch=input("Enter  any  character:")  if(ch=='a'  or
ch=='e' or ch=='i' or ch=='o' or ch=='u'):
    print(ch,"isan vowel.")
else:              print(ch,"isa
    consonant.")
```

```
Enter any character:u
u is an vowel.
```

```
Enter any character:h
h is a consonant.
```

9.Write a program to print digits of a number.

```
#Digits     printing.
d=0
n=int(input("Enter the number.")) print("The
digits  of  the  entered  number  is:")
while(n>0): d=n%10
    print(d)
    n//=10
```

```
Enter the number.7590
The digits of the entered number is:
0
9
5
7
```

10.Write a program to print reverse of a number.

```
#Reverse of a number.
n=int(input("Enter any number."))
d=rev=0 while(n>0): d=n%10 rev=rev*10+d
n//=10 print("The reverse of the entered number
is:",rev)
```

```
Enter any number.889
The reverse of the entered number is: 988
```

11.Write a program to print the following pattern.

```
#Pattern No.1 for
i in range(1,7):
    for j in range(1,i+1):
```

```
    print("*",end='\t')
print()
```


12.Write a program to print the following pattern.

```
#Pattern No.2 for
i in range(1,7):
    for j in range(1,i+1):
    print(i,end='\t') print()
```

```
1
2  2
3  3  3
4  4  4  4
5  5  5  5  5
6  6  6  6  6  6
```

13.Write a program to show argument passing to a function.

```python
def evenodd(a):
    if(a%2==0):
        return 1
    else:
        return -1
a=eval(input("Enter the number:"))
flag=evenodd(a)
if(flag==1):
    print("Number is even.")
else:
    print("Number is odd.")
```

```
Enter the number:7
Number is odd.
```

```
Enter the number:4
Number is even.

In [3]:
```

14.Write a program to show keyword argument passing to a function.

```
def display(str,int_x,float_y): print("The string is:
",str)  print("The  integer  value  is:  ",int_x)
print("The    floating    value    is:    ",float_y)
display(float_y=5678.09,str="hello",int_x=1234)
```

```
The string is:  hello
The integer value is:  1234
The floating value is:  5678.09
```

15. Write a program to show default argument passing to a function.

```python
def display(name,course='BTECH'):
    print("Name=",name) print("Course=
    ",course)
display(course='BCA',name='Arnav')
display(name="REYANSH")
```

```
Name= Arnav
Course=  BCA
Name= REYANSH
Course=  BTECH

In [5]:
```