1. Program to check if a number is Even or Odd

INPUT :

main.py

Save Run

```
1  print('Kavana \n')
2
3  num = int(input("Enter a number: "))
4
5  if num % 2 == 0:
6      print(num," is even")
7  else:
8      print(num," is odd")
9
10
```

OUTPUT :

Shell

```
Kavana

Enter a number: 56
56  is even
>
```

2. Program to check if a number is Positive or Negative

INPUT :

main.py

Save Run

```
1  print('Kavana \n')
2
3  num = float(input("Enter a number: "))
4
5  if num > 0:
6      print(num," is positive")
7  elif num < 0:
8      print(num," is negative")
9  else:
10     print("The number is zero")
11
```

OUTPUT :

Shell

```
Kavana

Enter a number: -2.54
-2.54  is negative
>
```

3. Program to check if a number is Prime number or not.

INPUT :

main.py

Save Run

```
print('Kavana \n')

num = int(input("Enter a number: "))

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

OUTPUT :

Shell

```
Kavana

Enter a number: 23
23 is a prime number.
>
```

4. Program to check if a string is Palindrome or not.

INPUT :

main.py

Save Run

```
1  print('Kavana')
2
3  str = input("Enter a string: ")
4
5  if str == str[::-1]:
6      print("It is a palindrome")
7  else:
8      print("It is not a palindrome")
9
10
```

OUTPUT :

Shell

```
Kavana
Enter a string: alala
It is a palindrome
>
```

5. Program to find the Sum of two numbers

INPUT :

main.py

Save Run

```
1  print('Kavana')
2
3  num1 = int(input("Enter the first number: "))
4  num2 = int(input("Enter the second number: "))
5
6  sum = num1 + num2
7
8  print(f"The sum of ",num1," and ", num2 ," is: ", sum)
9
```

OUTPUT :

Shell

```
Kavana
Enter the first number: 5
Enter the second number: 2
The sum of  5  and  2  is:  7
>
```

6. Program to find Sum of two numbers using function

INPUT :

main.py

Save Run

```
1  print('Kavana')
2
3  def add(num1, num2):
4      return num1 + num2
5
6  num1 = int(input("Enter the first number: "))
7  num2 = int(input("Enter the second number: "))
8
9  result = add(num1, num2)
10
11 print(f"The sum of ",num1," and ", num2, "is : ",result)
12
```

OUTPUT :

Shell

```
Kavana
Enter the first number: 9
Enter the second number: 5
The sum of  9  and  5 is :  14
>
```

7. Program to find Maximum of two numbers

INPUT :

main.py

Save Run

```
print('Kavana')

num1 = int(input("Enter the first number: "))
num2 = int(input("Enter the second number: "))

if num1 > num2:
    max = num1
else:
    max = num2

print(f"The maximum of ",num1," and ",num2," is : ",max)

```

OUTPUT :

Shell

```
Kavana
Enter the first number: 45
Enter the second number: 65
The maximum of  45  and  65  is :  65
>
```

8. Program to find Minimum of two numbers

INPUT :

main.py

Save Run

```
1  print('Kavana')
2
3  num1 = int(input("Enter the first number: "))
4  num2 = int(input("Enter the second number: "))
5
6  if num1 < num2:
7      min = num1
8  else:
9      min = num2
10
11 print(f"The minimim of ",num1," and ",num2," is : ",min)
12
```

OUTPUT :

Shell

```
Kavana
Enter the first number: 33
Enter the second number: 22
The minimim of  33  and  22  is :  22
>
```

9. Program to print Fibonacci Series of n numbers

INPUT :

main.py Save Run

```
print('Kavana')

num = int(input("Enter the Fibonacci sequence length : "))

firstTerm = 0
secondTerm = 1
print("The Fibonacci series with", num, "terms is :")
print(firstTerm, secondTerm, end=" ")
for i in range(2,num):
    curTerm = firstTerm + secondTerm
    print(curTerm, end="  ")
    firstTerm = secondTerm
    secondTerm = curTerm

```

OUTPUT :

Shell

```
Kavana
Enter the Fibonacci sequence length: 8
The Fibonacci series with 8 terms is:
0 1 1 2 3 5 8 13
>
```

10. Program to find the Factorial of a number

INPUT :

main.py

Save Run

```
1  print('Kavana')
2
3  def fact(num):
4      if num == 0:
5          return 1
6      else:
7          return num * fact(num-1)
8
9  n = int(input("Enter the value of N : "))
10 print("Factorial of ",n ,"is : ",fact(n))
11
12
```

OUTPUT :

Shell

```
Kavana
Enter the value of N : 5
Factorial of  5 is :  120
>
```

11. Program to find GCD (Greatest Common Divisor) of two number

INPUT :

main.py

Save Run

```
print('Kavana')

def gcd(a, b):
    if(b == 0):
        return a
    else:
        return gcd(b, a % b)

a = int(input("Enter the first number: "))
b = int(input("Enter the second number: "))

print("The gcd of ",a," and ",b," is : ",gcd(a,b))

```

OUTPUT :

Shell

```
Kavana
Enter the first number: 6
Enter the second number: 3
The gcd of  6  and  3  is :  3
>
```

12. Program to swap two numbers

INPUT :

main.py Save Run

```
print('Kavana')


num1 = int(input("Enter the first number: "))
num2 = int(input("Enter the second number: "))

print("Before swapping:")
print("First number:", num1)
print("Second number:", num2)

temp = num1
num1 = num2
num2 = temp

print("\nAfter swapping:")
print("First number:", num1)
print("Second number:", num2)
```

OUTPUT :

Shell

```
Kavana
Enter the first number: 5
Enter the second number: 6
Before swapping:
First number: 5
Second number: 6

After swapping:
First number: 6
Second number: 5
>
```

13. Program to reverse a string

INPUT :

main.py

Save Run

```
1  print('Kavana')
2
3  str1 = input("Enter a string: ")
4  str2=str1[::-1]
5
6  print("The reverse string is : ",str2)
7
```

OUTPUT :

Shell

```
Kavana
Enter a string: apple
The reverse string is :  elppa
>
```

14. Program to guess number using random function

INPUT :

main.py

Save Run

```
print('Kavana')

import random
secretNumber = random.randint(1, 20)
print('Thinking of a number between 1 and 20')

for guessesTaken in range(1, 7):
    print('Take a guess.')
    guess = int(input())

    if guess < secretNumber:
        print('Your guess is too low.')
    elif guess > secretNumber:
        print('Your guess is too high.')
    else:
        break

if guess == secretNumber:
    print('Good job! You guessed my number in ' + str(guessesTaken) + ' guesses!'
        )
else:
    print('Nope. The number I was thinking of was ' + str(secretNumber))

```

OUTPUT :

Shell

```
Kavana
Thinking of a number between 1 and 20
Take a guess.
10
Your guess is too low.
Take a guess.
15
Your guess is too low.
Take a guess.
17
Your guess is too high.
Take a guess.
16
Good job! You guessed my number in 4 guesses!
>
```