

if-else Statements

```
marks = int(input("Enter your marks:"))
if marks >= 90:
    print("Grand: A")
elif marks >= 80:
    print("Grand: B")
elif marks >= 75:
    print("Grand: C")
elif marks >= 70:
    print("Grand: D")
elif marks >= 60:
    print("Grand: E")
else:
    print("Grand: F")
```

Enter your marks:95
Grand: A

FOR LOOP

```
for i in range(5):
    print("Iteration:",i)
```

Iteration: 0
Iteration: 1
Iteration: 2
Iteration: 3
Iteration: 4

```
for i in range(5,10):
    print("Iteration:",i)
```

Iteration: 5
Iteration: 6
Iteration: 7
Iteration: 8
Iteration: 9

```
for i in range(5,50,10):
    print("Iteration:",i)
```

Iteration: 5
Iteration: 15
Iteration: 25
Iteration: 35
Iteration: 45

While loop

```
count=0
while count<5:
    print("Count:",count)
    count+=1
```

```
Count: 0
Count: 1
Count: 2
Count: 3
Count: 4
```

Control Flow Tools

```
#break
for i in range(10):
    if i==5:
        break
    print(i)
```

```
0
1
2
3
4
```

```
#continue
for i in range(10):
    if i == 5:
        continue
    print(i)
```

```
0
1
2
3
4
6
7
8
9
```

```
#pass
for i in range(10):
    if i==5:
        pass
    print(i)
```

0
1
2
3
4
5
6
7
8
9

Sum of Number in a Given

```
start = int(input("Enter the start of the range: "))
end = int(input("Enter the end of the range: "))
sum = 0
for i in range(start, end + 1):
    sum += i
print("The sum is:", sum)
```

Enter the start of the range: 5
Enter the end of the range: 10
The sum is: 45

Fibonacci number

```
number = int(input("Enter a number"))
factorial = 1
for i in range(1, number + 1):
    factorial *= i
print("The factorial is :", factorial)
```

Enter a number10
The factorial is : 1
The factorial is : 2
The factorial is : 6
The factorial is : 24
The factorial is : 120
The factorial is : 720
The factorial is : 5040
The factorial is : 40320
The factorial is : 362880
The factorial is : 3628800

Fibonacci Sequence

```
n = int(input("Enter the number of terms:"))
a,b = 0,1
for i in range(n):
    print(a,end=" ")
    a,b = b, a + b
```

```
Enter the number of terms:5
0 1 1 2 3
```

Simple interest

```
num1 = float(input("Enter first number:"))
num2 = float(input("Enter second number:"))
operation = input("Enter operation(+, -, *, /): ")
if operation == "+":
    print("Result:", num1 + num2)
elif operation == "-":
    print("Result",num1 - num2)
elif operation == "*":
    print("Result",num1 * num2)
elif operation == "/":
    print("Result",num1 / num2)
else:
    print("Invalid operation")
```

```
Enter first number:2
Enter second number:2
Enter operation(+, -, *, /): 2/2
Invalid operation
```

Check Leap year

```
year = int(input("Enter a year: "))
if (year % 4 == 0 and year % 100 != 0) or (year % 400 == 0):
    print("Leap Year")
else:
    print("Not a Leap Year")
```

```
Enter a year: 200
Not a Leap Year
```

#Find the Largest of Three Numbers

```
num1 = float(input("Enter first number:"))
num2 = float(input("Enter second number:"))
num3 = float(input("Enter third number:"))
if num1 >= num2 and num1 >= num3:
    print("Largest number is:", num1)
elif num2 >= num3:
    print("Largest number is:", num2)
else:
    print("Largest number is:", num3)
```

```
Enter first number:25
Enter second number:89
Enter third number:90
Largest number is: 90.0
```

Sum of all Even Number in a range

```
start = int(input("Enter start of range:"))
end = int(input("Enter end of range:"))
even_sum=0
for num in range(start,end+1):
    if num % 2 == 0:
        even_sum += num
print("Sum of even numbers:",even_sum)
```

```
Enter start of range:67
Enter end of range:78
Sum of even numbers: 438
```