Day 1

1. Write a Python program to print "Hello, World!"

```
print("Hello,World!")
```

```
Hello,World!
```

```
print("\"Hello world!\"")
```

```
"Hello world!"
```

```
a="Hello,world!"
print(a)
```

```
Hello,world!
```

2. Calculate the sum of two numbers entered by the user

```
b=int(input("Enter a number,b :"))
c=int(input("Enter a number,c :"))
result=b+c
print(f"The sum of {b} and {c} is {result}")
```

```
Enter a number,b :2
Enter a number,c :3
The sum of 2 and 3 is 5
```

```
user_input=input("Enter numbers seperated by space: ")
numbers=[int(num) for num in user_input.split( )]
total=sum(numbers)
print(total)
```

```
Enter numbers seperated by space: 23 45 12 98 45
223
```

3. Convert temperature from Celsius to Fahrenheit.

```
celsius=float(input("Enter the celsius :"))
fah=(9/5)*celsius +32
print(fah)
```

```
Enter the celsius :45
113.0
```

```
fahren=lambda cel :(9/5)*cel +32
cel=float(input("Enter the celsius :"))
print(fahren(cel))
```

```
Enter the celsius :-1.8
28.759999999999998
```

Write a Python program to calculate the area of a rectangle given its length and width

```
Length=float(input("Enter the length of the rectangle :"))
Breadth= float(input("Entre the breadth of the rectangle :"))
Area=2*(Length+Breadth)
print("Area of the Rectangle is "+ str(Area))
```

```
Enter the length of the rectangle :34
Entre the breadth of the rectangle :2
Area of the Rectangle is 72.0
```

Create a program that takes a user's name and age as input and prints a greeting message

```
name =input("Enter your name :")
age=int(input("Enter your age :"))
print(f"Hey {name}, Welcome to the website" )
```

```
Enter your name :Priya
Enter your age :23
Hey Priya, Welcome to the website
```

Write a program to check if a number is even or odd

```
even_odd=int(input("Enter a number :"))
if even_odd %2==0:
    print(f"The number {even_odd} is even")
else:
    print(f"The number {even_odd} is odd")
```

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

Given a list of numbers, find the maximum and minimum values

```
number_input=input("Enter the numbers seperated by space :")
num_list=number_input.split( )
numbers=[int(num) for num in num_list]
print("The Minimum value in the list is "+ str(min(numbers)))
print ("The Minimum value in the list is "+ str(max(numbers)))
```

```
Enter the numbers seperated by space :34 90 45 0 34
The Minimum value in the list is 0
The Minimum value in the list is 90
```

Create a Python function to check if a given string is a palindrome

```
str_input=input("Enter a string :")
if str_input[::-1]==str_input:
    print("The string you entrered is a Palindrome")
else:
    print("The string you entered is not a palindrome")


Enter a string :madam
The string you entrered is a Palindrome
```

Calculate the compound interest for a given principal amount, interest rate, and time period

```
def compound(p,rate,n,t):
    r=rate/100
    amt=p*(1+r/n)**(n*t)
    interest= amt-p
    return interest

p=int(input("Enter the Principal :"))
rate=float(input("Enter the interest rate :"))
n=int(input("Enter the number of times interest applied per time
period :"))
t=float(input("Enter the number of time (in years):"))
interest_rate=compound(p,rate,n,t)
print("compound interest :",round(interest_rate,2))

Enter the Principal :1000
Enter the interest rate :4
Enter the number of times interest applied per time period :12
Enter the number of time (in years):3
compound interest : 127.27
```

Write a program that converts a given number of days into years, weeks, and day

```
def year(days):
    years=days//365
    week=(days % 365)//7
    day=(days % 365)%7
    return years,week,day

days=int(input("enter the number of days :"))

years,week,day=year(days)
print(f"This is equal to {years} years, {week} week and {day} days")

enter the number of days :456
This is equal to 1 years, 13 week and 0 days
```

Given a list of integers, find the sum of all positive numbers

```
nums=[-12,22,-34,-5,-1,0,56,100]
s=0
for i in nums:
    if i>=0:
        s+=i
print("The sum of the Positive numbers is ",s)


The sum of the Positive numbers is  178
```

Create a program that takes a sentence as input and counts the number of words in it

```
sentence=input("Enter a sentence :")
word_count=sentence.split( )
print(len(word_count))

Enter a sentence :Python is a high level programming language
7
```

Implement a program that swaps the values of two variables.

```
def swap_values(a, b):
    return b, a
a=int(input("Enter a number,a :"))
b=int(input("Enter a number,b :"))

print("values before swapping :",a,b)
swap=swap_values(a,b)
print("swapped values :",swap)

Enter a number,a :23
Enter a number,b :90
values before swapping : 23 90
swapped values : (90, 23)
```