**Assignment-2**

1.Write a Python program that takes two numbers as input and calculates their sum.

x=int(input("Enter the 1st Number: "))

y=int(input("Enter the 2nd Number: "))

z=x+y

print(z)

2.Write a Python program that checks if a given number is even or odd and prints an appropriate message.

x=int(input("enter the number: "))

if x%2==0:

  print("the number is even")

else:

  print("the number is odd")

3.Write a Python program that takes a user's age as input and prints "You are a minor" if the age is less than 18, "You are an adult" if the age is 18 or older but less than 65, and "You are a senior" if the age is 65 or older.

x=int(input("input the number:"))

if x>=65:

  print("you are senior")

elif x>=18 and x<65:

  print("you are adult")

else:

  print("you are minor")

4.Write a Python program that calculates the area of a rectangle. It should take the length and width as input from the user.

  x=int(input("enter the length:"))

  y=int(input("enter the width:"))

  z=x\*y

  print(z)

5. Write a Python program that checks if a given year is a leap year. A leap year is a year that is divisible by 4 but not divisible by 100, except if it is also divisible by 400.

x=int(input("enter the year :"))

if (x%4==0 and x%100!=0) and (x%400==0):

 print(x,"year is a leap year")

else:

 print(x,"year is not a leap year")

6.Write a Python program that takes a user's score as input and assigns a letter grade based on the following grading scale: - A: 90-100 - B: 80-89 - C: 70-79 - D: 60-69 - F: Below 60

x=int(input("Enter the average score of the student:"))

if x==100 or x>=90:

  print("A")

elif x==89 or x>=80:

  print("B")

elif x==79 or x>=70:

  print("C")

elif x==69 or x>=60:

  print("D")

else:

  print("F")

7. Write a Python program that asks the user for their name and age. If the user's age is less than 13, print "Sorry, you are not eligible for this service." Otherwise, print a greeting message with their name.

x=int(input("Enter the Age of the student:"))

y=str(input("Enter the name of the student:"))

if x>=13:

 print(x,"you are eligible for service:")

else:

 print(x,"you are not eligible for service")