**Exercise 2**

Q1: Write a Python program to sum all the items in a list.

list = [1,2,3,4,5]

result  = sum(list)

print(result)

Q2: Write a Python program to get the largest number from a list.

list = [1,2,3,4,5]

result  = max(list)

print(result)

Q3: Write a Python program to get the smallest number from a list.

list = [1,2,3,4,5]

result  = min(list)

print(result)

Q4: Write a Python program to display the first and last colors from the following list.

color\_list = ["Red","Green","White" ,"Black"]

color\_list = ['Red', 'Green', 'White', 'Black']

first\_colour = color\_list[0]

last\_color = color\_list[-1]

print(first\_colour)

print(last\_color)

Q5: Write a Python program to add 'ing' at the end of a given string (length should be at least 3). If the given string is already ends with 'ing' then add 'ly' instead.

str = input("enter your word")

if str[-3:]=="ing":

    print(str + "ly")

else:

    print(str + "ing")

Q6: The marks obtained by a student in 5 different Subjects are input through a keyboard. The Student gets a division as per the following rules.

1. Percentage above or equal to 60 – First Division
2. Percentage between 50 and 59 – Second Division
3. Percentage between 40 and 49 – Third Division
4. Percentage less than 40 – Fail

score = int(input("Student got the score"))

if score >= 60:

    print("First divison")

elif 59>=score>=50:

    print("Seconnd divison")

elif 49>=score>=40:

    print("third divison")

else:

    print("fail")

Q7: write a Python program to find the largest number among the three input numbers

num1 = int(input("enter your number1" ))

num2 = int(input("enter your number2" ))

num3 = int(input("enter your number3" ))

list1 = []

list1.extend([num1,num2,num3])

result = max(list1)

print(result)

Q8: Write a Python program to check if the input year is a leap year or not.

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

if year%400 == 0:

    print("This is leap year")

elif year%100 == 0:

    print("This is not leap year")

elif year%4==0:

    print("this is leap year")

else:

    print("this is not a leap year")

Q9: write a Program to check if a string is palindrome or not

str = input("enter your input")

str1 = list(str)

str1.reverse()

str1 = "".join(str1)

if str1 == str:

    print("This is palindrome")

else:

    print("This is not palindrome")

Q10: Given a nested list. Write a python program to extend it with adding sub list ["h", "i", "j"] in a such a way that it will look like the following list

Given List:

list1 = ["a", "b", ["c", ["d", "e", ["f", "g"], "k"], "l"], "m", "n"]

Sub List to be added = ["h", "i", "j"]

Expected output:

['a', 'b', ['c', ['d', 'e', ['f', 'g', 'h', 'i', 'j'], 'k'], 'l'], 'm', 'n'

list1 = ["a", "b",["c",["d", "e",["f","g"],"k"],"l"],"m","n"]

list1[2][1][2].extend(["h","i","j"]

list1

Q11: Write a python program for Given a Python list, to find value 20 in the list, and if it is present, replace it with 200. Only update the first occurrence of a value

list1 = [5, 10, 15, 20, 25, 50, 20]

Expected output:

list1 = [5, 10, 15, 200, 25, 50, 20]

s = [5,10,15,20,25,20]

ind = s.index(20)

s[ind] = 200

s

Q12: Write a program to rotate a list to the right by k steps.  
Example: [1,2,3,4,5], k=2 → [4,5,1,2,3].

s= [1,2,3,4,5]

s1 = s[-2:]

s2 = s[0:3]

string = s1+s2

string