Week Tasks

Question: 1

- Imagine you work in the university's admission department. You have to enter the data for a student named Hamza Khan. He is 20 years old and he is a new student.

In [2]:
```python
Name="Hamza Khan"
Age=20
is_new=True
print(Name+ " is ", Age," years old and he is a new student in the University")
```

```
Hamza Khan is  20  years old and he is a new student in the University
```

Question 2

- Ask two questions from the user: the user's name and their favorite sport.Then print a message like, Ahmed likes football.

In [4]:
```python
Name=input("Enter your name? ")
sport=input("Enter Name of your favourite Sports? ")
print(Name + " likes " + sport)
```

```
Enter your name? Gul Munir
Enter Name of your favourite Sports? Hockey
Gul Munir likes Hockey
```

Question 3

- Write a program to compute the distance between two points taking input from the user
  formula= ((x2-x1)^2+(y2-y1)^2)^1/2

In [5]:
```python
import math

x1=float(input("Enter value of X1 : "))
x2=float(input("Enter value of X2 : "))
y1=float(input("Enter value of Y1 : "))
y2=float(input("Enter value of Y2 : "))

distance=math.sqrt((x2-x1)**2 + (y2-y1)**2)
print("Distance between Two Points is : " , distance , "meters")
```

```
Enter value of X1 : 8
Enter value of X2 : 5
Enter value of Y1 : 3
Enter value of Y2 : 8
Distance between Two Points is :  5.830951894845301 meters
```

Question: 4

- Write a program add.py that takes 2 numbers as command-line arguments and prints its sum

In [6]:
```python
num1=int(input("Enter First Number : "))
num2=int(input("Enter Second Number : "))
```

```
sum=num1+num2
print("Sum = ",sum)
```

```
Enter First Number : 9
Enter Second Number : 9
Sum =  18
```

Question 5

- Ask the user for his first and last names. Then print the statement: FirstName [Last Name] is a programmer

In [7]:
```
f_name=input("Enter Your First Name : ")
l_name=input("Enter Your Last Name :")
message="{} [{}] is a programmer".format(f_name,l_name)
print(message)
```

```
Enter Your First Name : Gul
Enter Your Last Name :Munir
Gul  [Munir] is a programmer
```

Question 6

Solve x=(2+3)*10-3 and print it on the terminal

In [8]:
```
eq=(2+3)*10-3
x=eq
print("Answer is : ", x)
```

```
Answer is :  47
```

Question 7

Price of a house is 1M Rupees If the buyer has good credit, they need to put down 10%. Otherwise, they need to put down 20%.

In [10]:
```
credit=input("What is the your Credit? ")
credit=credit.casefold()
house_price=1000000
if credit=='good':
    get_down_price=house_price*0.1
    new_price=house_price - get_down_price
    print("The get down price is ", get_down_price)
    print("New Price of House is ", new_price)
elif credit=='not good':
    get_down_price=house_price*0.2
    new_price=house_price - get_down_price
    print("The get down price is ", get_down_price)
    print("New Price of House is ", new_price)
```

```
What is the your Credit? not good
The get down price is  200000.0
New Price of House is  800000.0
```

DATA TYPES

Question 8

Make a list and reverse it.

In [12]:
```python
groceries=["samosa","roll","chatni","pista","badam"]
groceries.reverse()
groceries
```

Out[12]: ['badam', 'pista', 'chatni', 'roll', 'samosa']

Question 9

Write a program to add two lists index-wise. Create a new list that contains the 0th index item from both the list, then the 1st index item, and so on till the last element. any leftover items will get added at the end of the new list. Hint: Use list comprehension with zip() function

In [13]:
```python
List_1=["Rashid","Irshad","karan" , "Sagar","Imran"]
List_2=["19CS10","19CS110","19CS55","19CS54","19CS20"]
List_3=zip(List_1,List_2)
print(list(List_3))
```

```
[('Rashid', '19CS10'), ('Irshad', '19CS110'), ('karan', '19CS55'), ('Sagar', '19CS5
4'), ('Imran', '19CS20')]
```

TUPLE TASKS

1.Write a Python program to create a tuple. 2.Write a Python program to create a tuple with different data types. 3.Write a Python program to create a tuple with numbers and print one item. 4.Write a Python program to unpack a tuple in several variables. 5.Write a Python program to add an item in a tuple

In [18]:
```python
#1.Write a Python program to create a tuple.
tuple=(10,20,30,40,50,"19CS")
print(tuple)
```

```
(10, 20, 30, 40, 50, '19CS')
```

In [17]:
```python
#2.Write a Python program to create a tuple with different data types.
st_record=("Gul Munir",49 , 3089383861 ,3.53)
print(st_record)
```

```
('Gul Munir', 49, 3089383861, 3.53)
```

In [19]:
```python
#3.Write a Python program to create a tuple with numbers and print one item.
student_record=("Gul Munir Hassan",49 , 3089383861 ,3.53)
print("Name of Student is : ",student_record[0])
```

```
Name of Student is :  Gul Munir Hassan
```

In [20]:
```python
#4.Write a Python program to unpack a tuple in several variables
student_record=("Gul Munir Hassan",49 , 3089383861 ,3.53)
name=student_record[0]
roll_num=student_record[1]
phone_num=student_record[2]
gpa=student_record[3]

print("Student Name :" + name + "\nRoll Number :" , roll_num , "\nPhone Number : ",p
```

```
Student Name :Gul Munir Hassan
Roll Number : 49
Phone Number :  3089383861
GPA : 3.53
```

In [21]:

```python
#5.Write a Python program to add an item in a tuple
student_record=("Gul Munir Hassan",49 , 3089383861 ,3.53)
student_record.append(4)
```

```
---------------------------------------------------------------------------
AttributeError                            Traceback (most recent call last)
~\AppData\Local\Temp/ipykernel_2128/1493492146.py in <module>
      1 #5.Write a Python program to add an item in a tuple
      2 student_record=("Gul Munir Hassan",49 , 3089383861 ,3.53)
----> 3 student_record.append(4)

AttributeError: 'tuple' object has no attribute 'append'
```

DESCRIPTION

- In the above cell, you saw when i want to append my tuple but it gives error , this error is occured because in tuple data type is immutable therefore we can't perform any fucntion like append , insert.

DICTIONARY TASK

Ask the user to type a four-digit number. And print it in words.

In [24]:

```python
Numbers = {
    '1': "One",
    '2': "Two",
    '3': "Three",
    '4': "Four",
    '5': "Five",
    '6': "Six",
    '7': "Seven",
    '8': "Eight",
    '9': "Nine",
}
text = input("Enter numbers: ")
text.split()
for i in text:
    print(Numbers.get(i), end=" ")
```

```
Enter numbers: 9
Nine
```

In [ ]: