Assignment-11

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1. **What is dictionary in Python and explain it with an example**

Dictionaries are another example of a data structure. A dictionary is used to map or associate things you want to store the keys you need to get them. A dictionary in Python is just like a dictionary in the real world. Python Dictionary are defined into two elements Keys and Values.

- Keys will be a single element
- Values can be a list or list within a list, numbers, etc.
- Syntax for Python Dictionary**:**

```
Dict = { ' Tim': 18,  xyz,.. }
```

- Dictionary is listed in curly brackets, inside these curly brackets, keys and values are declared. Each key is separated from its value by a colon (:) while each element is separated by commas.
- **Ex:-**

```
Dict = {'Tim': 18,'Charlie':12,'Tiffany':22,'Robert':25}
print (Dict['Tiffany'])
```

2. Program to find sum of all the elements in a list

```python
lst = []

num = int(input('How many numbers: '))

for n in range(num):

    numbers = int(input('Enter number '))

    lst.append(numbers)

print("Sum of elements in given list is :", sum(lst))
```

Output:-

```
How many numbers: 5

Enter number 3

Enter number 8

Enter number 6

Enter number 3

Enter number 2

Sum of elements in given list is : 22
```

3. **Program to create a list of empty dictionaries**

    n = 5

    l = [{} for _ in range(n)]

    print(l)

    Output:-

    [{}, {}, {}, {}, {}]

4. **Program to access dictionary keys elements by index**

    num = {'physics': 80, 'maths': 90, 'chemistry': 86}

    print(list(num)[1])

    Output:-

    maths