Assignment No 6 :(Dictionaries)

Aim: a) Write a Python program to convert two lists into a dictionary in a way that item from list1 is the key and item from list2 is the value

b) Write a Python script to generate and print a dictionary that contains a number (between 1 and n) in the form (x, square of x)

c) Write a Python program to create a dictionary storing movie details such as - (Movie name: show timings) and perform the following operations

i. Add a new movie

ii. Display movies available at 9 pm

iii. Remove the details of the specific movie

iv. Removes the last movie details

Theory: Dictionaries are used to store data values in key:value pairs. A dictionary is a collection which is ordered, changeable and do not allow duplicates. Dictionaries are Python's implementation of a data structure that is more generally known as an associative array. A dictionary consists of a collection of key-value pairs. Each key-value pair maps the key to its associated value. You can define a dictionary by enclosing a comma-separated list of key-value pairs in curly braces ({}). A colon (:) separates each key from its associated value. Of course, dictionary elements must be accessible somehow. If you don't get them by index, then how do you get them? A value is retrieved from a dictionary by specifying its corresponding key in square brackets ([]).

CODE(a):

```
# a.Write a Python program to convert two lists into a dictionary in a way
that item from list1
# is the key and item from list2 is the value

list_key = ['A', 'B', 'C', 'D']
list_value = [1, 2, 3, 4]
Dict = {list_key[i]: list_value[i] for i in range(len(list_key))}
print("Resultant Dictionary is: "+str(Dict))
```

OUTPUT:

```
C:\Users\soura\AppData\Local\Microsoft\WindowsApps\pythonw3.10.exe
Resultant Dictionary is: {'A': 1, 'B': 2, 'C': 3, 'D': 4}


Process finished with exit code 0
```

CODE(b):

```
# b. Write a Python script to generate and print a
dictionary that contains a number (between
# 1 and n) in the form (x, square of x)

list_x = []
list_x2 = []
n = int(input("Enter the value of n: "))
for x in range(1,n+1):
    list_x.append(x)
    list_x2.append(x**2)
Dict = {list_x[i]: list_x2[i] for i in
range(len(list_x))}
print(Dict)
```

OUTPUT:

```
C:\Users\soura\AppData\Local\Microsoft\WindowsApps\pythonw3.10
Enter the value of n: 5
{1: 1, 2: 4, 3: 9, 4: 16, 5: 25}

Process finished with exit code 0
```

CODE(c):

```
# c. Write a Python program to create a dictionary
storing movie details such as  - (Movie
# name: show timings) and perform the following
operations
# i. Add a new movie
movie = {"3 idiots": 3, "83": 6, "Hera Pheri": 9}
print("Original Dictionary: ", movie)
movie["Lagaan"] = 12
print("After addition of movie: ",movie)

# ii. Display movies available at 9 pm
print("Movies at 9: ", list(movie.keys())
      [list(movie.values()).index(9)])

# iii. Remove the details of the specific movie
```

```
del movie["83"]
print("After deleting 83: ", movie)

# iv. Remove the last movie details
movie.popitem()
print("After removing the last movie details: ", movie)
```

OUTPUT:

```
C:\Users\soura\AppData\Local\Microsoft\WindowsApps\pythonw3.10.exe "C:/SOURAV/CODE/Py
Original Dictionary:  {'3 idiots': 3, '83': 6, 'Hera Pheri': 9}
After addition of movie:  {'3 idiots': 3, '83': 6, 'Hera Pheri': 9, 'Lagaan': 12}
Movies at 9:  Hera Pheri
After deleting 83:  {'3 idiots': 3, 'Hera Pheri': 9, 'Lagaan': 12}
After removing the last movie details:  {'3 idiots': 3, 'Hera Pheri': 9}

Process finished with exit code 0
```

Conclusion: Hence, we have learned the implementation of Dictionary.