Day 5 [Assignments+ Solution]

Q1.

You have seen how powerful dictionary data structure is.
In this assignment, given a number **n**, you have to write a program that generates a dictionary **d** which contains **(i,i*i)**, where **i** is from **1 to n (both included)**.
Then you have to just print this dictionary **d**.

Example:

Input: 4
will give output as
{1: 1, 2: 4, 3: 9, 4: 16}

Input Format:

Take the number **n** in a single line.

Output Format:

Print the dictionary **d** in a single line.
Example:
Input:
8
Output:
{1: 1, 2: 4, 3: 9, 4: 16, 5: 25, 6: 36, 7: 49, 8: 64}
Explanation:
Here **n** is 8, we will start from **i=1**, hence the first element of the dictionary is **(1: 1)**, as i becomes **2**, the second element of the dictionary becomes **(2: 4)** and so on.

Hence the output will be **{1: 1, 2: 4, 3: 9, 4: 16, 5: 25, 6: 36, 7: 49, 8: 64}**.

CODE:

```
n=int(input())
d={}
for i in range(1,n+1):
    d.update({i:i*i})
print(d)
```

Q2.

You have also seen how list slicing is performed in python.
In this program, create a list of numbers from 1 to 50 named **list_1**. The numbers should be present in the increasing order: Ex **list_1 = [1,2,3,4,5,....,50]**
i.e. index zero should be 1, index one should be 2, index two should be 3 and so on.

Given an input of two numbers, let's say **a** and **b**, you have to print the numbers returned by the following command
list_1[a:b]

Input:
The first line of input contains two numbers **a** and **b** separated by a space.
NOTE: You can take two inputs in a single line using the following command:
a, b = input().split()

Make sure you convert the strings in **a** and **b** into integers using the **int()** command

Output:
Print the numbers in new line

Example:
Input:
2 6
Output:
3
4
5
6
Explanation: In this example, **a** is 2 and **b** is 6. The **list_1** contains numbers from 1 to 50. When you perform the operation **list_1[a:b]** which in this case is, **list_1[2:6]**, it returns a list of following numbers **[3, 4, 5, 6]**. Print the elements of this list with each element in a new line.

CODE:

```
list_1 = []
for i in range(1,51):
    list_1.append(i)
a, b = input().split()
a = int(a)
b = int(b)
l=[]
while a<b:
    l.append(list_1[a])
    a=a+1
print(l)
```

Regards,

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