Python Programming

Assignment 4
Two problems

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Problem 1

- Accept integer numbers from the user till the user gives q or Q.
- Maintain a list of odd, even and prime numbers and append the numbers entered into one of the lists you maintain.
- When the user gives Q or q, then print all the contents of the lists.

Sample inputs and expected outputs are given below

Keep giving integer numbers, then q or Q to quit.
Input an integer or q or Q to quit: 1
Input an integer or q or Q to quit: 2
Input an integer or q or Q to quit: 3
Input an integer or q or Q to quit: 4
Input an integer or q or Q to quit: 5
Input an integer or q or Q to quit: 6
Input an integer or q or Q to quit: 7
Input an integer or q or Q to quit: 8
Input an integer or q or Q to quit: 9
Input an integer or q or Q to quit: 10
Input an integer or q or Q to quit: q

Output:

List of Prime numbers entered:
[2, 3, 5, 7]
List of Odd numbers entered:
[1, 9]
List of Even numbers entered:
[4, 6, 8, 10]

Note: sympy module has **isprime()** function.

Problem 2 … see next page too

Note: The messages to be printed need not be exactly what are given here …

- Accept Full names and nicknames of your friends and store it in your dictionary.
- When the dictionary is queried with the nickname, give the full name.
- First take as much of full names and nicknames, till q or Q is given.
- Then allow the users to query the dictionary by giving nicknames, till q or Q is given.

Sample inputs and expected outputs are given below

```
Get your friend's nick name!!!
Give q or Q to stop giving the name
You can give your friend's nick name
I will give you his or her full name!!!
At any time you can give q or Q to quit


Give full name of your friend: Amitabh Bachchan


Give nick name of this friend now: Big B
At any time you can give q or Q to quit


Give full name of your friend: Rajesh Khanna


Give nick name of this friend now: Kaka
At any time you can give q or Q to quit
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Give full name of your friend: Aishwarya Rai

Give nick name of this friend now: Ash
At any time you can give q or Q to quit
Give full name of your friend: q
```

Note: Your friends may be different from mine too ☺

Problem 2 ... contd.

Sample inputs and expected outputs are given below

Now, you can query me to get the full name
by giving your friend's nick name
At any time you can give q or Q to quit
Give the nick name of your friend: Ash
Your friend's full name is:
Aishwarya Rai
Now, you can query me to get the full name
by giving your friend's nick name
At any time you can give q or Q to quit
Give the nick name of your friend: Kaka
Your friend's full name is:
Rajesh Khanna
Now, you can query me to get the full name
by giving your friend's nick name
At any time you can give q or Q to quit

Give the nick name of your friend: Big B
Your friend's full name is:
Amitabh Bachchan
Now, you can query me to get the full name
by giving your friend's nick name
At any time you can give q or Q to quit

Give the nick name of your friend: q
Ok, bye bye ...