Python Assignment 4

Data Types: Dictionary

Practical Type Questions

The following are the assignment questions on the topic Dictionary and their methods. **Complete the following exercise in Jupyter Notebook or Google Colab and submit your file before the allotted deadline.**

Copy the following code in one cell and run in your Notebook to Enter entries. Enter any 5 random Entries.

```python
book = {}
def info_book():
    """Creates a phone book with names as key and a list of dictionaries as values"""

    while True:
        names = input('Please enter the First and Last name separated by space (or type "exit" to quit): ')
        if names.lower() == 'exit':
            break

        number = input('Please enter the phone number: ')
        address = input('Please enter your location: ')

        full_name = " ".join(names.split())

        # Check if the full name exists in the phone book
        if full_name in book:
            # If the name exists, append the new entry to the existing list of entries
            book[full_name].append({'address': address, 'number': number})
        else:
            # If the name does not exist, create a new entry with a list containing the dictionary
            book[full_name] = [{'address': address, 'number': number}]

    return book
info_book()
```

The above code returns a dictionary named 'book' which has Names as key and number and address as values. Use this to generate random entries of at least 5 people. After entering the data, you can look/access the dictionary by using the variable name 'book'.

Answer the following with reference to the dictionary formed by the above code.

1. Print all the names in the above dictionary.
2. Print all the values associated with the names.
3. You want to enter one more Name but the number and address are not known yet. Add the new name with no values in the above dictionary.
4. Add a candidate with the name 'Matt Daemon' whose number is 555010898 and lives in Pune to the book dictionary.
5. Matt Daemon has relocated to New York and his new number is 444333888. Change his number and address in the dictionary.
6. Given below is another information stored in dictionary made by your colleague. Add/Merge these values to you existing book dictionary.

    {'Jon Snow': [{'address': 'Sydney', 'number': '500600700'}],

    'Thomas Shelby': [{'address': 'Birmingham', 'number': '888000111'}],

    'Alex Botez': [{'address': 'California', 'number': '464555202'}],

    'Vidit Gujarati': [{'address': 'Mumbai', 'number': '7711155530'}],

    'Manasi Joshi': [{'address': 'Delhi', 'number': '8000500023'}]}

7. Jon Snow has ended membership from your organization. Remove his entry and details from your dictionary.
8. Check/Print how many entries you have in your dictionary.