

## PRACTICAL 5

5	Dictionary-Based Application Build a phonebook application. <ul style="list-style-type: none"><li>● Add new contacts to the dictionary.</li><li>● Search for a contact by name.</li><li>● Update an existing contact's number.</li><li>● Delete a contact.</li><li>● Display all contacts in alphabetical order of names.</li></ul>
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### COMMAND:

```
'''Dictionary-Based Application
```

Build a phonebook application.

- Add new contacts to the dictionary.
- Search for a contact by name.
- Update an existing contact's number.
- Delete a contact.
- Display all contacts in alphabetical order of names.'''

```
# Phonebook Application
```

```
phonebook = {} # Empty dictionary to store contacts
```

```
def add_contact():  
    name = input("Enter name: ").strip().title()  
    if name in phonebook:  
        print(f"{name} already exists in the phonebook.")  
    else:  
        number = input("Enter phone number: ").strip()  
        phonebook[name] = number  
        print(f"{name} added successfully.")
```

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```
def search_contact():

    name = input("Enter name to search: ").strip().title()

    if name in phonebook:

        print(f"{name}'s number is {phonebook[name]}")

    else:

        print(f"{name} not found in the phonebook.")
```

```
def update_contact():

    name = input("Enter name to update: ").strip().title()

    if name in phonebook:

        number = input(f"Enter new phone number for {name}: ").strip()

        phonebook[name] = number

        print(f"{name}'s number updated successfully.")

    else:

        print(f"{name} not found in the phonebook.")
```

```
def delete_contact():

    name = input("Enter name to delete: ").strip().title()

    if name in phonebook:

        del phonebook[name]

        print(f"{name} deleted successfully.")

    else:

        print(f"{name} not found in the phonebook.")
```

```
def display_contacts():

    if not phonebook:
```

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```
print("Phonebook is empty.")

else:
    print("\nContacts in alphabetical order:")
    for name in sorted(phonebook):
        print(f"{name}: {phonebook[name]}\n")

# Menu Loop
while True:
    print("\n--- Phonebook Menu ---")
    print("1. Add Contact")
    print("2. Search Contact")
    print("3. Update Contact")
    print("4. Delete Contact")
    print("5. Display All Contacts")
    print("6. Exit")

choice = input("Enter your choice (1-6): ").strip()

if choice == '1':
    add_contact()
elif choice == '2':
    search_contact()
elif choice == '3':
    update_contact()
elif choice == '4':
    delete_contact()
elif choice == '5':
```

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```
display_contacts()

elif choice == '6':

    print("Exiting Phonebook. Goodbye!")

    break

else:

    print("Invalid choice! Please enter a number from 1 to 6.")
```

### **OUTPUT:**

```
>>> = RESTART: C:/Users/admin/Documents/PCACS PYTHON/PRACTICAL 5
PYTHON PROGRAMMING FY BSc. COMPUTER SCIENCE-C 1400. KRISHNA
KAMLESH SINGH.py

--- Phonebook Menu ---
1. Add Contact
2. Search Contact
3. Update Contact
4. Delete Contact
5. Display All Contacts
6. Exit
Enter your choice (1-6): 1
Enter name: KRISHNA
Enter phone number: 88505349623
Krishna added successfully.

--- Phonebook Menu ---
1. Add Contact
2. Search Contact
3. Update Contact
4. Delete Contact
5. Display All Contacts
6. Exit
Enter your choice (1-6): 2
Enter name to search: KRISHNA
Krishna's number is 88505349623

--- Phonebook Menu ---
1. Add Contact
2. Search Contact
3. Update Contact
4. Delete Contact
5. Display All Contacts
6. Exit
Enter your choice (1-6): 3
Enter name to update: KRISHNA
Enter new phone number for Krishna: 8850534969
Krishna's number updated successfully.
```

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```
--- Phonebook Menu ---
1. Add Contact
2. Search Contact
3. Update Contact
4. Delete Contact
5. Display All Contacts
6. Exit
Enter your choice (1-6): 1
Enter name: SEEMA
Enter phone number: 7977956825
Seema added successfully.
```

```
--- Phonebook Menu ---
1. Add Contact
2. Search Contact
3. Update Contact
4. Delete Contact
5. Display All Contacts
6. Exit
Enter your choice (1-6): 4
Enter name to delete: KRISHNA
Krishna deleted successfully.
```

```
--- Phonebook Menu ---
1. Add Contact
2. Search Contact
3. Update Contact
4. Delete Contact
5. Display All Contacts
6. Exit
Enter your choice (1-6): 5
```

```
Contacts in alphabetical order:
Seema: 7977956825
```

```
--- Phonebook Menu ---
1. Add Contact
2. Search Contact
3. Update Contact
4. Delete Contact
5. Display All Contacts
6. Exit
Enter your choice (1-6): 6
Exiting Phonebook. Goodbye!
```