

Title : 1 B Write a program to implement an address book with options given below: a) Create address book. b) View address book. c) Insert a record. d) Delete a record. e) Modify a record. f) Exit

Batch NO. : T7

Roll NO. : 356

```
FILE="addressbook.txt"
```

```
# a) Create address book
```

```
createAddressBook()
```

```
{
    if [ -e "$FILE" ]; #-e returns true if the file exists,If not, it creates it using TOUCH
        then
            echo "Address book already exists."
        else
            touch "$FILE"
            echo "Address book created."
        fi
}
```

```
# b) View address book
```

```
viewAddressBook()
```

```
{
    if [ ! -s "$FILE" ]; then          #-s: Tests if the file exists and is empty or not
        echo "Address book is empty or does not exist."
    else
        echo "---- Address Book-----"
        cat "$FILE"                    #cat prints the file contents to the screen.
    fi
}
```

```
# c) Insert a record
```

```
insertRecord()
```

```
{
    echo "Enter record in format: LastName,FirstName,Email,Phone"
    read record
    echo "$record" >> "$FILE"          #>> "$FILE" appends the record to the file.
    echo "Record inserted."
}
```

```
# d) Delete a record
```

```
deleteRecord()
```

```
{
    echo "Enter a search string (e.g. name or email) to find the record to delete:"
    read search
    grep -n "$search" "$FILE"         #grep -n: Searches the file and shows matching lines with line
numbers (-n)

    echo "Enter line number to delete:"
    read line
    sed -i "${line}d" "$FILE"         #sed -i "${line}d" deletes that line in-place. sed -i- specify this
address range either by line number.
```

```
    echo "Record deleted."  
}
```

```
# e) Modify a record
```

```

modifyRecord()
{
    echo "Enter a search string (e.g. name or email) to find the record to modify:"
    read search
    grep -n "$search" "$FILE"

    echo "Enter line number to modify:"
    read line
    echo "Enter new record (LastName,FirstName,Email,Phone):"
    read newRecord
    sed -i "${line}s/.*/$newRecord/" "$FILE"    #This replaces the entire content of the specified
line with the new record.
    echo "Record modified."
}

# f) Exit the program
exitProgram()
{
    echo "Exiting... Goodbye!"
    exit 0
}

# Menu loop
while true; do
    echo
    echo "===== Address Book Menu ====="
    echo "1. Create Address Book"
    echo "2. View Address Book"
    echo "3. Insert a Record"
    echo "4. Delete a Record"
    echo "5. Modify a Record"
    echo "6. Exit"
    echo "Enter your choice: "
    read choice

    case $choice in
        1) createAddressBook ;;
        2) viewAddressBook ;;
        3) insertRecord ;;
        4) deleteRecord ;;
        5) modifyRecord ;;
        6) exitProgram ;;
        *) echo "Invalid choice. Please select 1-6." ;;
    esac
done

#details
#touch Create a file
#cat    View file content
#grep -n    Search with line numbers

```

```
#sed    Modify or delete specific lines
#>>    Append to a file
#exit 0 Exit script with success
```