```java
1/*
2*Assignment01-Q5
3*AIM :Create a application that displays Contact Manager
 Menu
4*NAME:SAGARIKA SRIVASTAVA
5*UIN :231P047
6*ROLL NO : 44
7*Div:A
8*/
9package JAVA_EXPS ;
10import java.util.Scanner;
12class Contact
13 {
14    private String name;
15    private String phoneNumber;
16
17        public Contact(String name, String phoneNumber)
18        {
19            this.name = name;
20            this.phoneNumber = phoneNumber;
21        }
22
23        public String getName()
24        {
25            return name;
26        }
27
28        public String getPhoneNumber()
29        {
30            return phoneNumber;
31        }
32
33        @Override public String toString()
34        {
```

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35              return "Name: " + name + ", Phone Number: " +
   phoneNumber;
36          }
37 }
38
39 public class ContactManager
40 {
41  private Vector<Contact> contacts;
42  public ContactManager()
43          {
44              contacts = new Vector<>();
45          }
46  public void addContact(String name, String phoneNumber)
47      {
48        contacts.add(new Contact(name, phoneNumber));
49        System.out.println("Contact added: " + name);
50      }
51  public void removeContact(String name)
52   {
53     for (int i = 0; i < contacts.size(); i++)
54     {
55         if (contacts.get(i).getName().equalsIgnoreCase
   (name))
56          {
57             contacts.remove(i);
58             System.out.println("Contact removed: " + name);
59             return;
60          }
61       }
62     System.out.println("Contact not found: " + name);
63 }
64 public void displayAllContacts()
65 {
66     if (contacts.isEmpty())
```

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67        {
68          System.out.println("Contact list is empty.");
69        }
70      else
71        {
72          System.out.println("Contacts:");
73          for (Contact contact : contacts)
74            {
75                System.out.println(contact);
76            }
77        }
78 }
79 public void searchContact(String name)
80 {
81      for (Contact contact : contacts)
82        {
83          if (contact.getName().equalsIgnoreCase(name))
84            {
85                System.out.println("Contact found: " +
   contact);
86          return;
87            }
88        }
89      System.out.println("Contact not found: " + name);
90 }
91
92 public static void main(String[] args)
93   {
94
95      Scanner scanner = new Scanner(System.in);
96      ContactManager manager = new ContactManager();
97
98      int choice;
99        do {
```

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100
101        System.out.println("Contact Manager Menu:");
102        System.out.println("1.Add a Contact");
103        System.out.println("2.Remove a Contact");
104        System.out.println("3.Display All Contacts");
105        System.out.println("4.Search for a Contact");
106        System.out.println("5.Exit");
107
108        System.out.print("Enter your choice: ");
109        choice = scanner.nextInt();
110        scanner.nextLine();
111
112    switch (choice)
113      {
114        case 1:
115            System.out.print("Enter contact name: ");
116            String nameToAdd = scanner.nextLine();
117            System.out.print("Enter phone number: ");
118            String phoneToAdd = scanner.nextLine();
119            manager.addContact(nameToAdd, phoneToAdd);
120            break;
121
122        case 2:
123            System.out.print("Enter contact name to
   remove: ");
124            String nameToRemove = scanner.nextLine();
125            manager.removeContact(nameToRemove);
126            break;
127
128        case 3:
129            manager.displayAllContacts();
130            break;
131
132        case 4:
```

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133             System.out.print("Enter contact name to
    search: ");
134             String nameToSearch = scanner.nextLine();
135             manager.searchContact(nameToSearch);
136             break;
137
138         case 5:
139             System.out.println("\nThank You!");
140             System.out.println("\nName:SAGARIKA SRIVASTAVA
    \nUIN:231P047\nROLL NO:44\n");
141             break;
142
143         default:
144         System.out.println("Invalid choice. Please try
    again.");
145     }
146   } while(choice != 5);
147   scanner.close();
148 }
149}
150
```