```
1  // Mobile_SIM_Mini_Project
2
3  // 1st_object Created:->
4  // -------------------------------
5
6   interface SIM {
7
8     void recharge(double amt);
9
10    void currentBalance();
11
12    String call(long MobileNumber);
13
14    String sms(long MobileNumber,String Message);
15 }
16
17   // 2nd_object Created:->
18 // -------------------------------
19
20  class Airtel implements SIM {
21
22      private double balance;
23
24      public void recharge(double amt) {
25                this.balance=this.balance + amt;
26                System.out.println("Airtel SIM is  recharged");
27      }
28
29      public void currentBalance() {
30          System.out.println("Existing balance: "+ balance);
31      }
32
33
34     public String call( long MobileNumber) {
35
36         return "Airtel: The number you are dailing is curretly busy please dail after some time
37     }
38
39     public String sms(long MobileNumber, String Message) {
40
41           return "Airtel: You message send Successfully";
42     }
43 }
44
45
46   // 3rd_object Created:->
```

```
47 // --------------------------------
48
49  class Idea implements SIM {
50
51     private double balance;
52
53     public void recharge(double amt) {
54               this.balance=this.balance + amt;
55               System.out.println("Idea SIM is  recharged");
56     }
57
58     public void currentBalance() {
59        System.out.println("Existing balance: "+ balance);
60     }
61
62
63    public String call( long MobileNumber) {
64
65       return "Idea: The number you are dailing is not reachable,please dail after some time'
66    }
67
68    public String sms(long MobileNumber, String Message) {
69
70          return "idea: You message send Successfully";
71    }
72 }
73
74
75  // 4th_object Created:->
76 // --------------------------------
77
78  class Uninor implements SIM {
79
80     private double balance;
81
82     public void recharge(double amt) {
83               this.balance=this.balance + amt;
84               System.out.println("Uninor SIM is  recharged");
85     }
86
87     public void currentBalance() {
88        System.out.println("Existing balance: "+ balance);
89     }
90
91
92    public String call( long MobileNumber) {
```

```
93
94          return  "Uninor: The number you are dailing is out of coverage area";
95      }
96
97      public String sms(long MobileNumber, String Message) {
98
99              return "Uninor: You message send Successfully";
100     }
101 }
102
103
104  // 5th_object Created:->
105 // --------------------------------
106
107  class Idea implements SIM {
108
109      private double balance;
110
111      public void recharge(double amt) {
112                this.balance=this.balance + amt;
113                System.out.println("Vodafone SIM is  recharged");
114      }
115
116      public void currentBalance() {
117          System.out.println("Existing balance: "+ balance);
118      }
119
120
121      public String call(long MobileNumber) {
122
123          return "Vodafone: The number you are dailing is switched off please dail after Some t
124      }
125
126      public String sms(long MobileNumber, String Message) {
127
128              return "Vodafone: You messge send Successfully";
129      }
130 }
131
132
133
134  // 6th_object Created:->
135 // --------------------------------
136
137  class Mobile {
138
```

```
139     private SIM sim;
140
141     public void InsertSIM(String simName) throws Exception {
142
143         // reflection API
144             Class cls = Class.forName(simName);
145             Object obj=cls.newInstance();
146
147             if(obj instanceof SIM) {
148                 this.sim = (SIM)obj;
149             }
150
151             else {
152                 throw new Exception("It is not SIM");
153             }
154     }
155
156     public String dail(long MobileNumber) {
157
158         return sim.call(MobileNumber);
159     }
160
161
162     public String sms(long MobileNumber, String Message) {
163
164             return sim.sms(MobileNumber, Message);
165    }
166 }
167
168
169  // Main_Method Created:->
170 // ----------------------------------
171
172 import java.util.Scanner;
173
174 class MobileScreen {
175
176     public static void main(String[] args) {
177
178         Mobile iPhone = new Mobile();
179
180         Scanner scn = new Scanner(System.in);
181
182             try
183             {
184                 System.out.println("Enter SIM: ");
```

```
185             iPhone.InsertSIM(scn.nextLine());
186
187             System.out.println("SIM is successfully activated ");
188             System.out.println("Choose one option ");
189             System.out.println("Type 1 to make a call ");
190             System.out.println("Type 2 to send sms ");
191
192             System.out.println("Enter option: ");
193             int option= scn.nextInt();
194
195         switch (option) {
196
197          case 1:
198                     System.out.println("Enter Mobile Number: ");
199
200                      System.out.println(iPhone.dail(scn.nextLong()));
201                      break;
202
203          case 2:
204                     System.out.println("Enter Mobile Number: ");
205                     long MobileNumber=scn.nextLong();scn.nextLine();
206
207                     System.out.println("Enter the Text Message: ");
208                     String MessageText = scn.nextLine();
209
210
211                    System.out.println(iPhone.sms(MobileNumber,MessageText));
212                     break;
213
214           default :
215                        System.out.println("Are You mad");
216                        System.out.println("Choose either 1 to 2:");
217                      }
218                }
219
220                       catch(Exception e) {
221                     //    System.out.println(e.getMobileNumber());
222                        System.out.println(e.getMessage());
223                   }
224         }
225     }
226
227
```