

```

1  public interface ChatMediator {
2      public void sendMessage(String msg, User user);
3      void addUser(User user);
4  }
5  =====
6  public class ChatMediatorImpl implements ChatMediator {
7      private List<User> users;
8
9      public ChatMediatorImpl(){
10         this.users=new ArrayList<>();
11     }
12
13     public void addUser(User user){
14         this.users.add(user);
15     }
16
17     public void sendMessage(String msg, User user) {
18         for(User u : this.users){
19             if(u != user){
20                 u.receive(msg);
21             }
22         }
23     }
24     =====
25     public abstract class User {
26         protected ChatMediator mediator;
27         protected String name;
28
29         public User(ChatMediator med, String name){
30             this.mediator=med;
31             this.name=name;
32         }
33
34         public abstract void send(String msg);
35
36         public abstract void receive(String msg);
37     }
38     =====
39     public class UserImpl extends User {
40         public UserImpl(ChatMediator med, String name) {
41             super(med, name);
42         }
43         public void send(String msg){
44             System.out.println(this.name+": Sending Message="+msg);
45             mediator.sendMessage(msg, this);
46         }
47         public void receive(String msg) {
48             System.out.println(this.name+": Received Message:"+msg);
49         }
50     }
51     =====
52     /*source:
53     http://www.journaldev.com/1730/mediator-design-pattern-in-java-example-tutorial*/
54     public class ChatClient {
55
56         public static void main(String[] args) {
57             ChatMediator mediator = new ChatMediatorImpl();
58             User user1 = new UserImpl(mediator, "a");
59             User user2 = new UserImpl(mediator, "b");
60             User user3 = new UserImpl(mediator, "c");
61             User user4 = new UserImpl(mediator, "d");
62             mediator.addUser(user1);
63             mediator.addUser(user2);
64             mediator.addUser(user3);
65             mediator.addUser(user4);
66
67             user1.send("Hi All");}
68     }

```