

```
1- import java.util.ArrayList;
2- import java.util.List;
3-
4- class User {
5-     private String username;
6-     private String password;
7-     private List<Account> accounts;
8-     private List<Transaction> transactionHistory;
9-
10-     public User(String username, String password) {
11-         this.username = username;
12-         this.password = password;
13-         this.accounts = new ArrayList<>();
14-         this.transactionHistory = new ArrayList<>();
15-     }
16-
17-     public String getUsername() {
18-         return username;
19-     }
20-
21-     public void setUsername(String username) {
22-         this.username = username;
23-     }
24-
25-     public String getPassword() {
26-         return password;
27-     }
28-
29-     public void setPassword(String password) {
```

Authentication successful!

```
29 - public void setPassword(String password) {
30     this.password = password;
31 }
32
33 - public List<Account> getAccounts() {
34     return accounts;
35 }
36
37 - public List<Transaction> getTransactionHistory() {
38     return transactionHistory;
39 }
40 }
41
42 - class Account {
43     // Account class implementation (if needed)
44 }
45
46 - class Transaction {
47     // Transaction class implementation (if needed)
48 }
49
50 - class Bankingsystem {
51     private List<User> users;
52
53 - public Bankingsystem() {
54     users = new ArrayList<>();
55 }
56
57 - public void addUser(User user) {
```

Authentication successful!

```
57     public void addUser(User user) {
58         users.add(user);
59     }
60
61     public User authenticateUser(String username, String password) {
62         for (User user : users) {
63             if (username.equals(user.getUsername()) && password.equals(user
64                 .getPassword())) {
65                 return user;
66             }
67         }
68         return null; // Authentication failed
69     }
70     // Other banking functionalities...
71 }
72
73 public class OnlineBankingSystem {
74     public static void main(String[] args) {
75         BankingSystem bankingSystem = new BankingSystem();
76
77         // Creating a user and adding it to the system
78         User user1 = new User("username1", "password1");
79         bankingSystem.addUser(user1);
80
81         // Attempting authentication
82         User authenticatedUser = bankingSystem.authenticateUser("username1",
83             "password1");
```

Authentication successful!

```
66     }
67     return null; // Authentication failed
68 }
69
70 // Other banking functionalities...
71 }
72
73 public class OnlineBankingSystem {
74     public static void main(String[] args) {
75         BankingsSystem bankingSystem = new BankingsSystem();
76
77         // Creating a user and adding it to the system
78         User user1 = new User("username1", "password1");
79         bankingSystem.addUser(user1);
80
81         // Attempting authentication
82         User authenticatedUser = bankingSystem.authenticateUser("username1",
83             "password1");
84
85         if (authenticatedUser != null) {
86             System.out.println("Authentication successful!");
87         } else {
88             System.out.println("Authentication failed. Please check your
89                 credentials.");
90         }
91     }
92 }
```

Authentication successful!

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