

Rules of password management:

To reduce the possibilities of mistaken typing from command line for testing my project, I think it is better to clarify the things below :

(1) My program will add 1 admin user and 2 client users as you required once it gets launched, but only the client users' accounts are editable later.

(2) To simplify my program, "admin (ID = 0001, PIN = 012345)" is the only administrator account which can't be edited and deleted after its birth.

No more other administrator user(s) could be added.

(3) Of course any client user(s) including the 2 testing clients could be added and deleted.

(4) For adding a new client user, a client account requests 6 digits inside [0-9] for passcode and 2 leading English letters inside [a-zA-Z] for username.

```
.
.
.
if (name.matches("[a-zA-Z]{2,}\\s[a-zA-Z]{2,}*" ) || name.matches("[a-zA-Z]{2,}\\s[.a-zA-Z]{2,}*" )
    || name.matches("[a-zA-Z]{2,}(-[a-zA-Z]{2,}*)" ) || name.matches("[a-zA-Z]{2,}(_[a-zA-Z]{2,}*)" )) {
    this.name = name;
} else {
    throw new Exception("Invalid client name");
}
.
.
.
if (PIN.matches("[0-9]{6}")) {
    this.PIN = PIN;
} else {
    throw new Exception("Invalid user passcode");
}
```

```
.
.
.
```

```
[andx@MacNC NCX files % java -jar ATMManager.jar
```

Welcome to use this ATM manager program!

IO&Runtime exception messages will be logged in the file located by the path "/Users/andx/andync/NCX files/ExceptionLog.txt"

1 administrator account and 2 client accounts have been configured for testing.

```
+-----+
|Press Enter to start|
|Type exit to quit  |
+-----+
```

Please type in your ID ...

0001

Please type in your PIN code ...

012345

Press Enter directly to proceed user authentication (up to 3 times) ...

Or type any character(s) like letter, number, space or punctuation to go back to the START menu ...

Admin user passed authentication!

Type an integer to make a selection from the administrator menu ...

```
+-----+
| 1--> add account      |
| 2--> delete account   |
| 3--> list accounts    |
| 4--> dump info to a file |
| 5--> finish           |
| Any other input will lead to redisplay this menu |
+-----+
```

Project Folder

```
|
+---pkg_1
|       |
|       |`file_1.java
|       |`file_2.java
|
+---pkg_2
|       |
|       |`file_3.java
|       |`file_4.java
|       |`file_5.java
+---main
|
|       `ATMManager.java
```