Please consider the following guidelines regarding user interface of your program. You **MUST** take these guidelines into consideration to run the discussion smoothly beside they have a significant weight when grading your project.

[A] Once you run the program, the following options are displayed (main login screen):

```
[1] Login As Admin
[2] Login as Card Holder
[3] Exit

Enter your choice: []
```
Figure 1: [Main Login Screen]

(1) If you choose "**Login As Admin**" option, the system does not require user name or password. As a result, the system shows the following options (functions) for the administrator (there is only one administrator for the whole system):

```
[1] Issue card
[2] Block card
[3] Unblock card
[4] View all cards
[5] View all transactions
[6] Back To Main Login Screen

Enter your choice: []
```
Figure 2: [Administrator Options Menu]

(2) If you choose "**Login As Card Holder**" option, the system displays the following login screen, and asks the user (student or faculty member) to select the type of card holder:

```
[1] Login As Student
[2] Login as Faculty Member
[3] Back To Main Login Screen

Enter your choice: []
```
Figure 3: [Card Holders' Login Screen]

(3) If you choose "**Exit**" option, your program must terminate.

[B] If the card holder (student or faculty member) tries to login, the following figures shows what will be entered and displayed:

```
[1] Login As Student
[2] Login as Faculty Member
[3] Back To Main Login Screen

Enter your choice: 1
Hmm, you're trying to login as student

Enter valid card number: []
```
Figure 4: [Card Holder Logs in as Student]

```
[1] Login As Student
[2] Login as Faculty Member
[3] Back To Main Login Screen

Enter your choice: 2
Hmm, you're trying to login as faculty member

Enter valid card number: []
```
Figure 5: [Card Holder Logs in as Faculty Member]

(1) The system matches the entered number with the stored one and notifies the user if the entered card number is not correct.

(2) In case of successful login (for student), the system displays the following options menu, and asks the student to select one:

```
[1] Recharge card
[2] Record lecture attendance
[3] Pay for cafeteria
[4] Pay for bus ride
[5] View transaction history
[6] Logout

Enter your choice: []
```
Figure 6: [Student's Options Menu]

(3) In case of successful login (for faculty member), the system displays the following options menu, and asks the faculty member to select one:

```
[1] Recharge card
[2] Access car parking
[3] Generate attendance report
[4] Logout

Enter your choice: []
```
Figure 7: [Faculty Member's Options Menu]

➢ **Notes:**

(1) If you choose the last option in each card holder's list of options "**Logout**" (Figures 6 and 7), your program must logout implicitly and re-display the card holders' login screen (Figure 3) to allow another user to login.

(2) If you choose the option "**Back To Main Login Screen**" (Figures 2 and 3), your program must re-display the main login screen (Figure 1).

(3) All options menus (Figures 1, 2, 3, 6, and 7) must be displayed periodically unless "**Exit**", "**Back To Main Login Screen**", or "**Logout**" options are selected.

(4) You program must check on the following limitations: invalid card number (when card holder tries to login using unavailable card number), blocked card (when card holder tries to login with blocked card), and insufficient card balance (when card holder makes payment). Otherwise, you must assume everything is going ok (IDs uniqueness or input format).

(5) Use shortcuts to indicate long inputs, for example: instead of entering "Northern buildings" as a destination of bus track, use "NB" or "D1". Similarly, use shortcuts for cafeteria menu items.

Example 1:
```
NB: Northern Buildings
SB: Southern Buildings
Enter a destination: NB
```

Example 2:
```
1:Steak (8 JD)  2:Soup (2 JD)  3:Sandwich (3 JD)
Enter an item or 0 to end order: 2
Enter an item or 0 to end order: 3
.
.
Enter an item or 0 to end order: 0
```