

Self-service Ticketing Kiosk System User Manual

Version: Second Version
Group78

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1. Short Information

Welcome to use our software for the self-service ticketing system, our team aim to provide the convenient and flexible software for our user and system administrators, also easily to operate, this manual will set the guidance.

2. Gate Controller Guidance

In this section, we will talk about the smart controller gate to help cinema to test the customer if their tickets are available and whether the ticket is a student ID or not.

The process of configuring the software please follow the instructions in readMe file.

When run the program in eclipse, after take some actions in 8051, you can see as below:

```

please enter ticket id
21212121ticket not exist!
please enter ticket id
21321443ticket exist!
not student ticket.
Screen2
MOONLIGHT
please enter ticket id
42424242

```

Also, on 8051 LCD screen, when followed the operation of the requirement, we have the corresponding results.

- a) If the ticket is a Child/Adult/Senior ticket, turn L1 ON for 5 seconds (and this would open the gate but you don't have to implement the actual gate). On the 1602 LCD display, show the screen number (Screen 1, Screen 2, Screen 3, etc.) on the top and the name of the film at the bottom

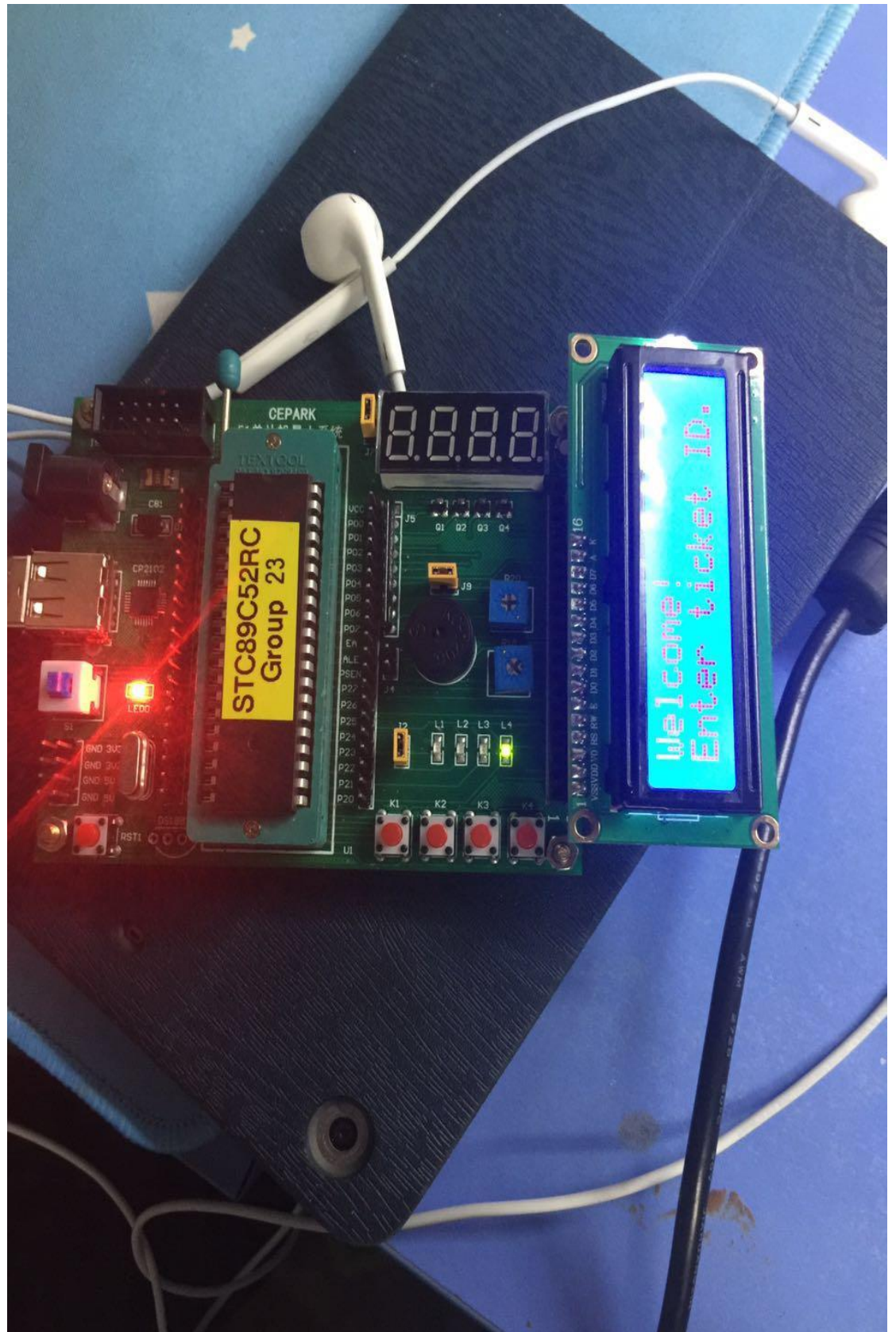
(Welcome)



- b) If the ticket is a Student ticket, turn L2 ON. This would signal to the staff on duty to come and check the student card manually. On the 1602 LCD display, show on the top (and an empty bottom row): Then the staff will enter a (fixed) secret 4-digit passcode (in our system, the correct passcode is “1212”) on approving the student card and the ticket, or any other passcodes on rejecting the student card. Once a passcode is entered, turn L2 OFF. If the passcode is correct, turn L1 ON and show the screen number and the name of the film on the 1602 LCD display for 5 seconds.



c) If the ticket is NOT valid, turn L4 ON for 5 seconds.



d) Additional Special function

We add a special function for our design: we design that if there are any wrong operations, like enter the not exist ID or wrong password, our hardware will set up the alarm to give a reminder to staff.

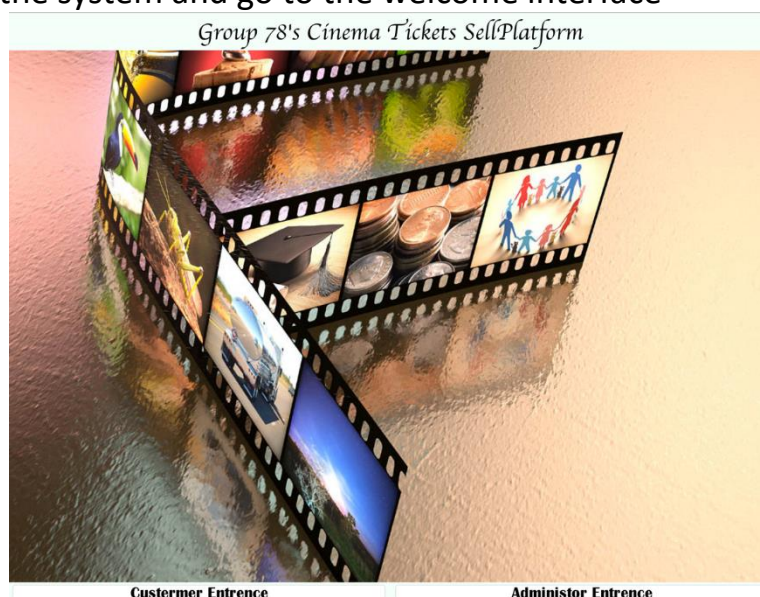
3. Functional Guidance

3.1 Administrator Guidance

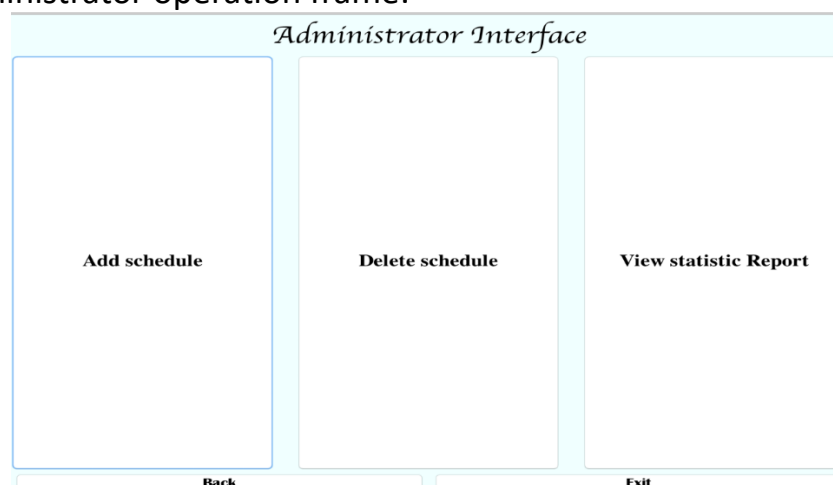
Actually, the first thing we need to focus on is the operational interface who controls movie information of the cinema which will be used for sale.

The following steps may help you to operate the system:

Compiling the system and go to the welcome interface



We can see the button called “Administrator Entrance”, click it and go to the Administrator operation frame:



There are three buttons for our all administrating operation: *ADD*, *Delete*, *view report*.

- a. For *Add*, when press it, we can lead the operation:

Notice: We assume that the current day information is already in the system, for addition, “1” means the next day, “2” means the day after tomorrow and so on. For deletion and view statistic report, “1” means the current day, “2” means tomorrow and so on.

Please choose the available date			
1	2	3	4
5	6	7	

BACK
EXIT

Take *day two* as an example, we now add schedule and complete the schedule information as follow:

Add Schedule

Please enter the film name:

Yesterday

Back
Exit
OK

Add New Film

Yesterday

Last Time: **min** **Price:** **\$**

This is a new film. Please enter the introduction of this film below:

This is a good movie!!

Admin

Add Schedule

Film name: Yesterday

Please choose the screen and enter the start time:

Screen1

Start hour(Ex:12, 2...**23**

Start minute(Ex:00,...**10**

Notification

You have successfully added the schedule!

OK

Add Schedule

Film name: Yesterday

Please choose the screen and enter the start time:

Start hour(Ex:12, 2...



23

Start minute(Ex:00,...

10

Back
Exit
OK

As shown above, complete the schedule information by following the tips, we can get the added schedule I the film lists as bellow, which allow viewing and purchasing:

<i>No.oFilms</i>				
KONG SKULL ISLAND	118min			<input type="button" value="select"/>
LOGAN	135min			<input type="button" value="select"/>
BEAUTY AND THE BE...	130min			<input type="button" value="select"/>
MOONLIGHT	111min			<input type="button" value="select"/>
LA LA LAND	128min			<input type="button" value="select"/>
Yesterday	120min			<input type="button" value="select"/>
BACK		EXIT		

<p>Yesterday picture</p>	<p>Title:Yesterday This is a good movie!! price: 13.0 last time: 120</p>
<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 5px; width: 45%;">BACK</div> <div style="border: 1px solid black; padding: 5px; width: 45%;">Purchase</div> </div>	

*****Add END UP*****

- b. For *Delete*, we can delete unwanted schedule of the specific day and specific screen. Likewise, we take *day two* and *screen one* as an example:

Delete Schedule

Please choose the screen number:

Screen1

Back

Exit

OK

Delete Schedule
Screen1

film name	start time	Operation
d	15:20	Delete
Yesterday	20:36	Delete
Yesterday	23:10	Delete

Back

Exit

Successfully deletion, go to the home page, though the film name is listed as bellow, the purchasing operation is not available, the screenshots are listed as bellow:

Delete Schedule Screen1		
film name	start time	Operation
d	15:20	Delete
Yesterday	23:10	Delete

Back Exit

Please choose the time for Yesterday

BACK EXIT

*****Delete END Up*****

- c. As for the third button—*View Statistic Report*, which generates a detail sales report of the specific day and will be send to the administrator's email automatically:(in this situation, "1" means the current day's report)

Please choose the available date

1	2	3	4
5	6	7	

BACK
EXIT

No.1 Statistic Report

Child total income:0.0
 Senior ticket count:0
 Senior total income:0.0
 Student ticket count:0
 Student total income:0.0
 Total tickets sold:2
 Total price:32.0

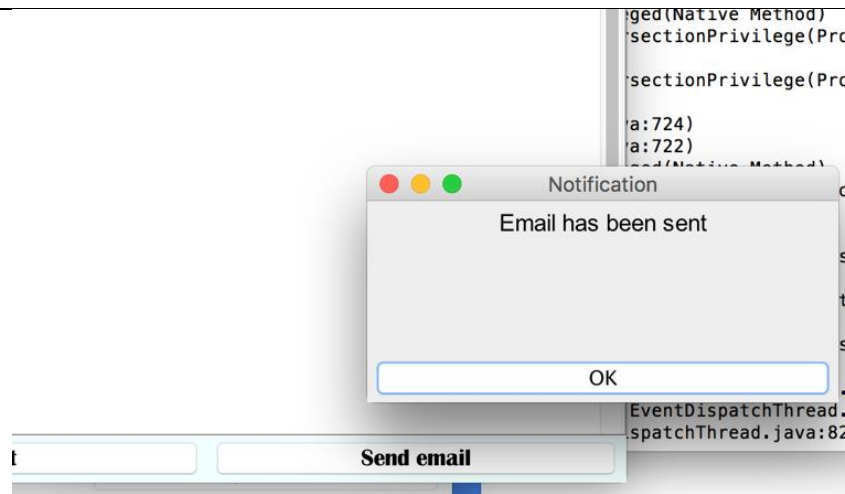
Film name:BEAUTY AND THE BEAST
 Adult ticket count:0
 Adult total income:0.0
 Child ticket count:0
 Child total income:0.0
 Senior ticket count:0
 Senior total income:0.0
 Student ticket count:0
 Student total income:0.0
 Total tickets sold:0
 Total price:0.0

Film name:MOONLIGHT
 Adult ticket count:0
 Adult total income:0.0
 Child ticket count:0
 Child total income:0.0
 Senior ticket count:0
 Senior total income:0.0
 Student ticket count:0

Back
Exit
Send email

Choose the day you want to check, and the report will be shown like above

Send email



By clicking the *Send email* button, the administrator will receive it.

*****View END UP*****

3.2 Customers Guidance

We can easily regard the Administrator as the important background operation interface to make sure the cinema ticket buying system running successfully. And next, we will give the target customers who directly use our system for tickets-buying service the complete guidance.

Firstly, go to the customer interface by clicking the *Customer Entrance* button:





The three buttons' function will be introduced separately:

BoxOffice: this is an interface for user to get into the platform for tickets-buying of the current day movies.

OnlineOffice: this is an interface for user to get into the platform for tickets-buying of the next 7 days' movie tickets booking operation.

CorePlatform: this is an interface for going back to the Core operation frame.

a. *BoxOffice* Guidance:

No.oFilms				
KONG SKULL ISLAND	118min			<input type="button" value="select"/>
LOGAN	135min			<input type="button" value="select"/>
BEAUTY AND THE BEAST	130min			<input type="button" value="select"/>
MOONLIGHT	111min			<input type="button" value="select"/>
LA LA LAND	128min			<input type="button" value="select"/>
Haruid	120min			<input type="button" value="select"/>
asjdh	120min			<input type="button" value="select"/>
<input type="button" value="BACK"/>		<input type="button" value="EXIT"/>		

- i. In the movie selection interface, we can select the movie we want. Take *MOONLIGHT* as an example:



This is a brief introduction of the film which illustrates the duration and price of the film. Click the *Purchase* button to go to the seats selection interface



- ii. Then we can choose which time suits us by pressing *select* button to continue

Notice: Assume that the time of the two are currently available.

- iii. Then we select the tickets, we chose both the normal tickets and the students tickets to make full guidance

Notice: the students' tickets need for ID identification.

Please choose the types of ticket of 'MOONLIGHT'
tickets remain:26

Type	Discription	Discount	Actual Price	number
Child	2 to 17 yeas old	0.5%	8.0	0
Adult	18 years and older	None	16.0	1
Senior	55 years and older	0.8%	12.8	0
Student	18 years and older in full time education need Student ID	0.85%	13.6	1

BACK exit ok

- iv. In the following interface, seats selection is available. Click corresponding seats in the schedule and it will turn red:

BACK EXIT OK

D	1	2	3	4	5	6	7	8	D
C	1	2	3	4	5	6			C
B	1	2	3	4	5	6			B
A	1	2	3	4	5	6			A

Screen 2

Screen 2

- v. Here, total bill will be listed as above, which allows users to review.

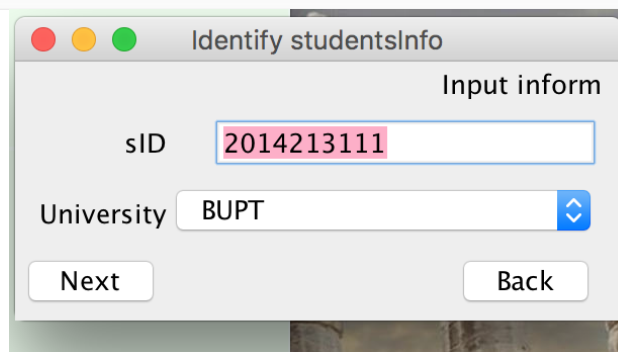
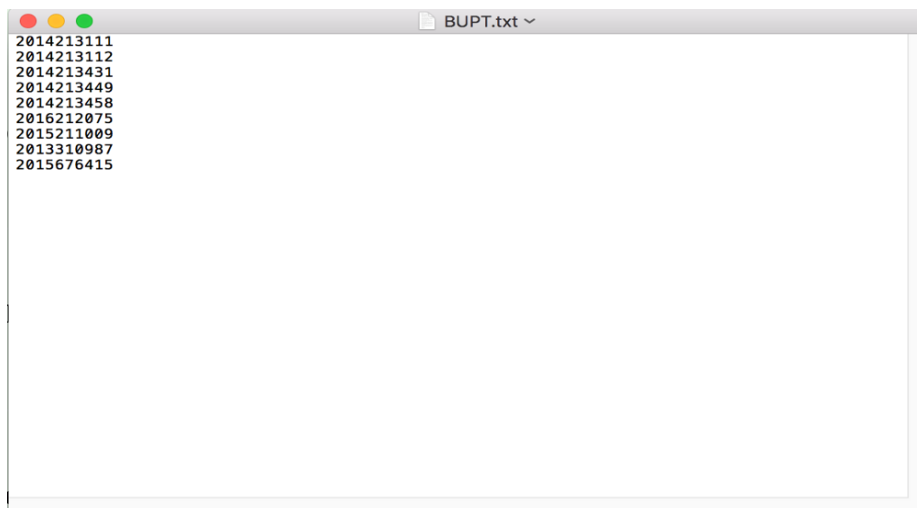
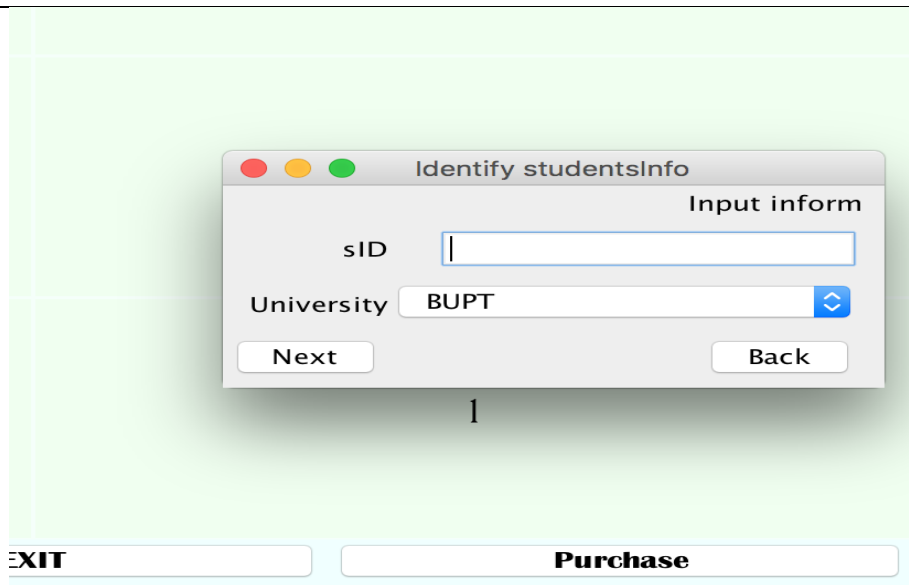
MOONLIGHT
Screen 2 For about: 111min
Start time: 16:00

Total ticket(s)	2
Total price	29.6\$
Student ticket(s)	1

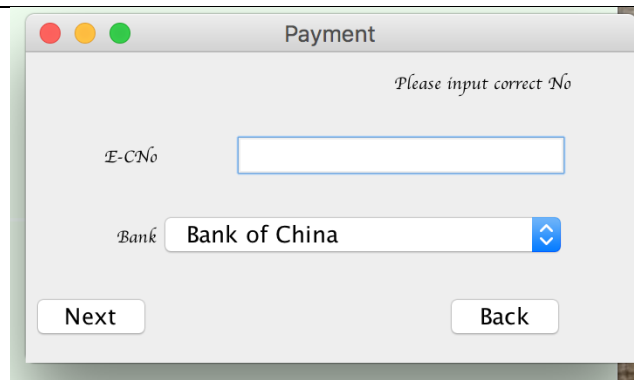
BACK EXIT Purchase

Notice: that we have selected the student ticket, so we need the ID identification.

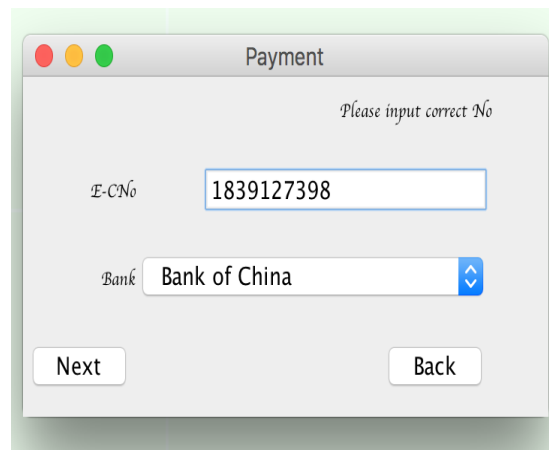
- vi. Students information is stored in the document and classified by different schools. Each student ID will be checked according to the input university. The both information must mach. Otherwise, discount is not available. Take BUPT as an example:



vii. The next step is to fulfill bank information, whose data is also stored in the document. Likewise, account number and bank must match, otherwise, leads to payment failure. Take Bank of China as an example:

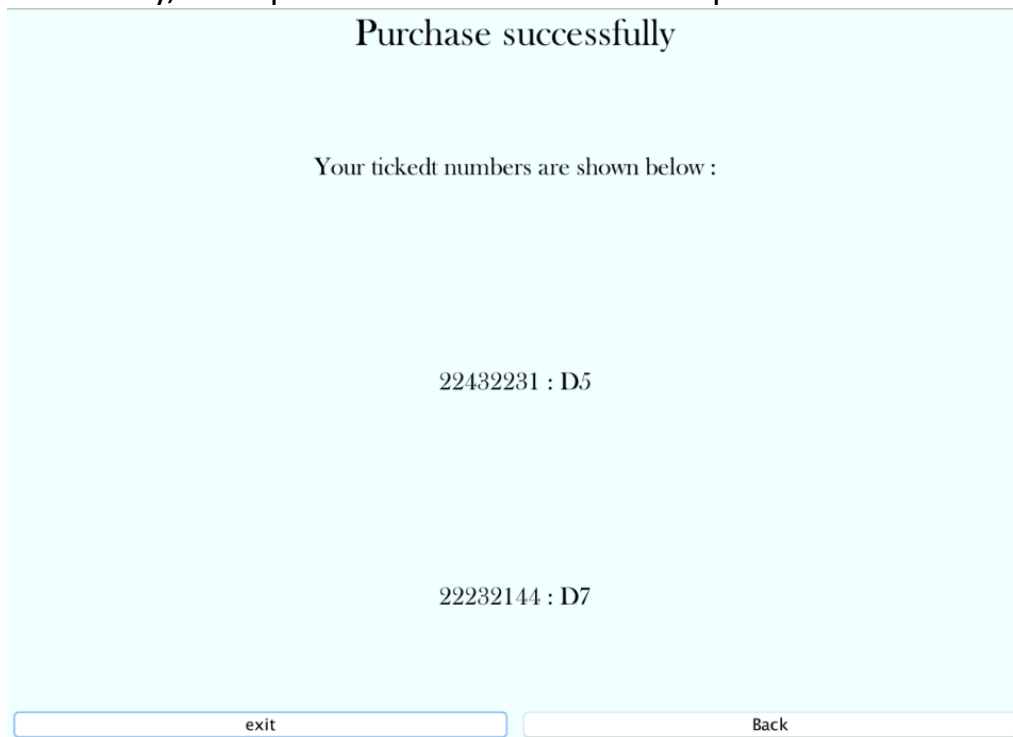


A screenshot of a 'Payment' dialog box. At the top, it says 'Please input correct No'. Below this, there is a label 'E-Card No' followed by an empty text input field. Underneath that is a label 'Bank' followed by a dropdown menu showing 'Bank of China'. At the bottom, there are two buttons: 'Next' on the left and 'Back' on the right.



A screenshot of the same 'Payment' dialog box, but now the 'E-Card No' input field contains the number '1839127398'. The 'Bank' dropdown still shows 'Bank of China' and the 'Next' and 'Back' buttons are still present at the bottom.

- viii. If valid input is given, the system will reassure the payment. And finally, a unique ticket information will be printed as bellow:



A screenshot of a confirmation screen with a light blue background. At the top, it says 'Purchase successfully'. Below that, it says 'Your ticked numbers are shown below :'. In the center, there are two lines of text: '22432231 : D5' and '22232144 : D7'. At the bottom, there are two buttons: 'exit' on the left and 'Back' on the right.

So, here we get the whole buying operation done

3.3 Book in Advance






The 7-day booked operation, it is almost the same as the current day in

the right operation, users just need to select which day to buy (next 7 days).

- a. Press *OlineBOX*, go to the choose date frame and choose which date to book is OK. (for example, "1" is for tomorrow)

<i>Please choose the available date</i>			
1	2	3	4
5	6	7	

- b. Suppose we select the third movie:

<i>No.3 Films</i>				
KONG SKULL ISLAND	118min			<input type="button" value="select"/>
LOGAN	135min			<input type="button" value="select"/>
BEAUTY AND THE BE...	130min			<input type="button" value="select"/>
MOONLIGHT	111min			<input type="button" value="select"/>
LA LA LAND	128min			<input type="button" value="select"/>
Yesterday	120min			<input type="button" value="select"/>

- c. The following operations are the same as the current purchase we just said before.

3.4 System fault-tolerant mechanism

As we have had talked above, we can see that we assume all the requirements of operation is right when we do run the system, but in fact there are many constraints we need to focus on and it is necessary to add the fault-tolerant mechanism. So next comes with the guidance, which makes sure the logic clearly.

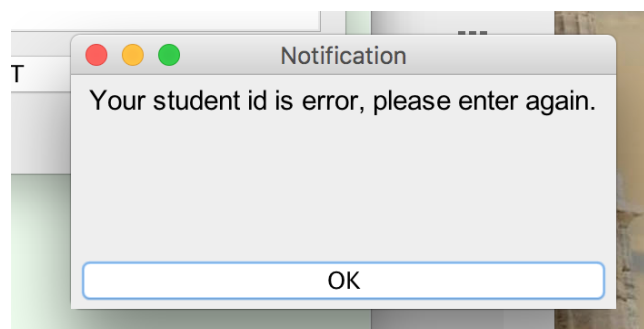
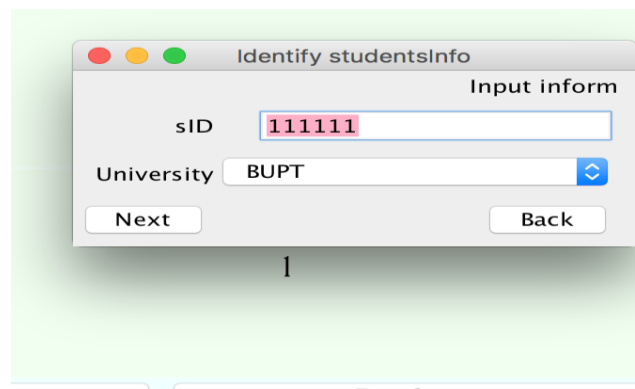
- a. **Back, Exit, and Thanks service**

These types of services are used to make sure the flexibility and the robustness of the system, in each step user or administrators can go back and exit. You can find each part of our frame shown above (interface have these mechanism), here we don't use picture to illustrate anymore.



b. Identification fault

If we use the wrong ID, then we cannot continue our service, there will be suggestion.



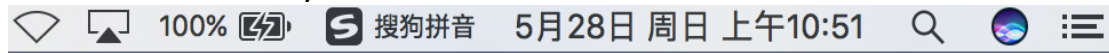
Press *ok*, *back* and until the ID is correct.

Also the identification for bank purchase has the same logic. You can operate in the similar way.

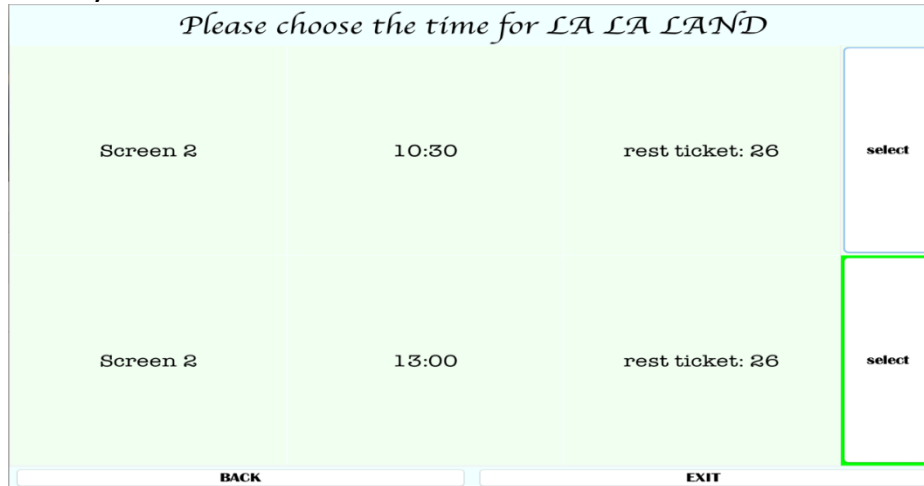
c. Time Synchronization

Do not worry about the confusing problem of the tickets buying fault caused by none time synchronization.

i. Users cannot buy or booked the out-time tickets:



The time my device is 10:50 now.



You will see the tickets for 10:30 is not available. The button is not set usable (It's background is not Green color). Then this meet the need.

The synchronization is as above achieved.

d. Administrator Modify fault tolerance

As for adding and delete operation, there have make sure the conflict detection and suggest interface, do not worry.



First, we choose this one to make a conflict and test.

film name: dddddd

Please choose the screen and enter the start time:

Screen2 Start hour(Ex:12, 23,...) 13 Start minute(Ex:00,5...) 10

Notification
Conflict to other schedule! Fail to add!
OK

You can find add failure, since here is already have the time of 13:00 in screen 2, and the minutes left is less than the length of the film.

As the same, the delete operation also has the same mechanism.

Notice: the booked movie cannot be deleted.

Admin Delete Schedule Screen1

film name	start time	Operation
BEAUTY AND THE BEAST	10:00	Delete
BEAUTY AND THE BEAST	12:30	Delete
KONG SKULL ISLAND	15:30	Delete
KONG SKULL ISLAND	18:30	Delete
KONG SKULL ISLAND	21:00	Delete

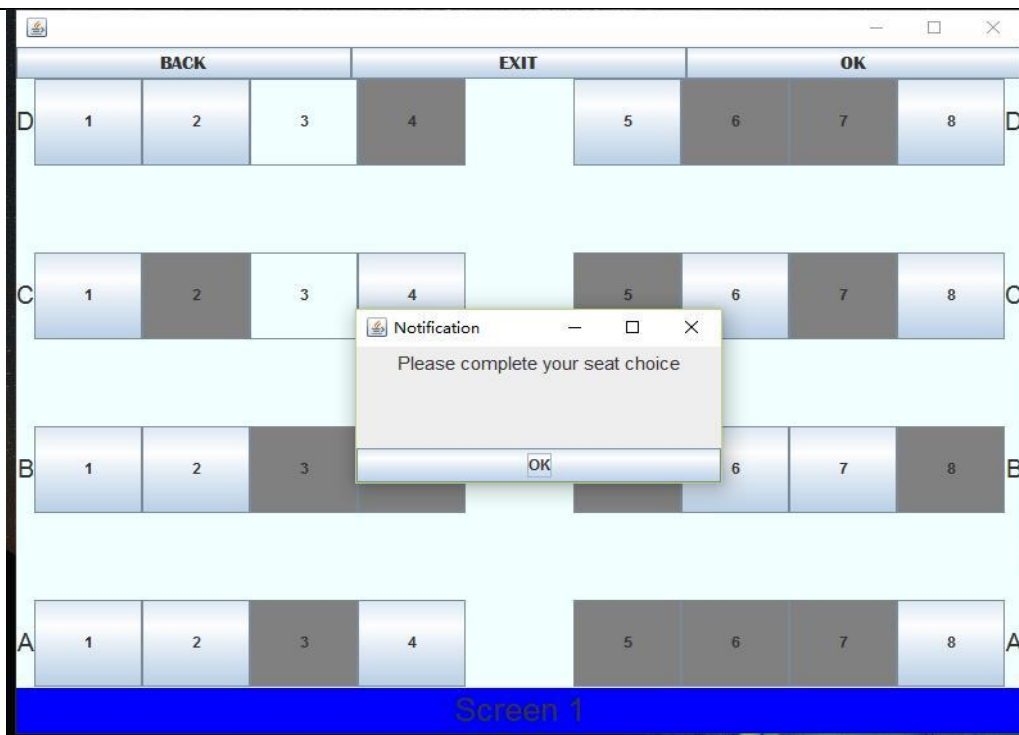
Notification
Can't delete this schedule.
Someone has booked the ticket.
OK

Back Exit

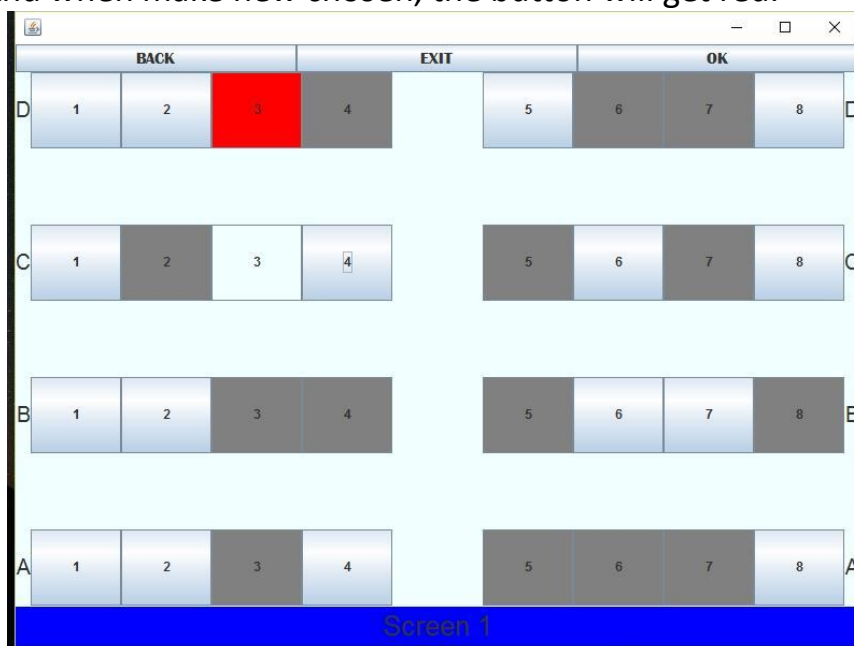
e. Seat chosen mechanism

Every seat is make sure to be chosen for one time before it the movie finish.

- When first choose, the seat has no color, and the seat which has been chosen for is set to grey and cannot be access to press. (Also has the tolerant operation: User must choose the seat and at the right number, or there will sign the suggestion like below.)



- ii. And when make new chosen, the button will get red.



4. Conclusion

Thanks for your patient reading, we are glad to help every user who needs us. If you have any question, please contact us and we will try our best to meet your needs.

Please also pay attention on our team main page on the web and we will continue to make the update components of the system and put on our page to enhance the function and more friendly. Don't worry, the update service is free.