

f2024-2025

ICT SBA

Assessment Schedule System

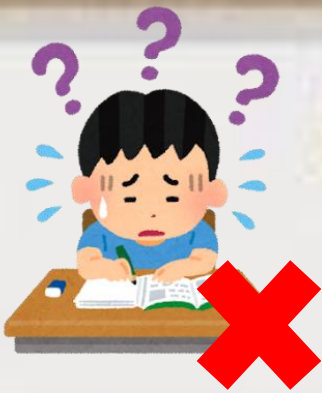


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Introduction

'Assessment Schedule System' is designed for ABC Secondary School which can address the problem of schedule assessment prepared by teachers. This system allows teachers to have better schedule assessment with various functions to improve the convenience of schedule assessment. By using the functions, teachers can input, record the assessment data and search or review the records easily. Also, not only this assessment schedule system provides teachers' system, but also includes "Administrator" account with other special functions.

Design

User Interface (UI)

This program is displaying in command line interface (CLI) by using python programming language. Users are mainly using keyboard by pressing the button, such as number key, <ESC> key, <ENTER> key, arrow key to control the program in a user-friendly way. Besides, the program included centre alignment and different colour displaying which is clear for users to review. For example, a clear error message will be displayed in red colour to remind users.

Functions

In the program, there are totally 3 functions for teachers and 8 functions for administrator.

For both teachers and administrator have a common function "Reset Password".

Special functions for administrator include "Teachers Class information" (Allow administrator to edit teachers' class which they are teaching), "Create Account", "Delete Account", "Reset Password Request" (Allow administrator to accept to request or not), "Specific Period Arrangement" (Allow administrator to arrange the specific period which teachers cannot assign any assessment on it), "Reset Assessments Log" and "Reset Specific Period".

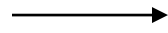
Special functions for teachers only include "Schedule Assessments System" (Allow teachers to assign assessments to classes) and "Searching" (Allow teachers to search for the assessments scheduled before).

Special Features

Password Encryption

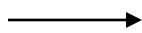
Every password stored in text files will be encrypted to **enhance the security** of program.

iCTiStHEbEST001|



nHYnXyMJgJXY556

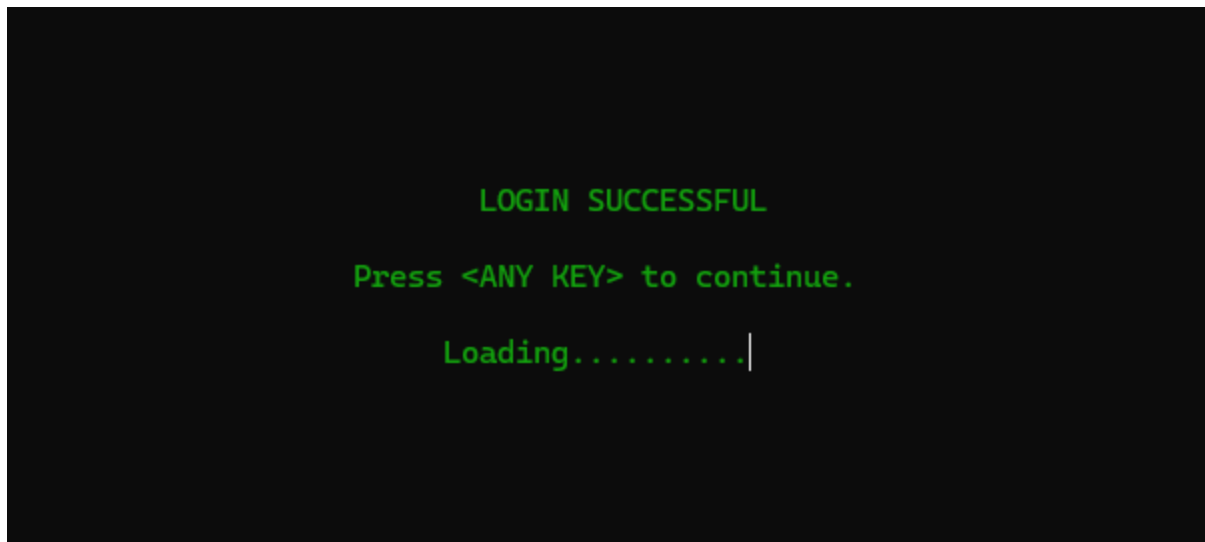
ASAdmin123|



FXFirms678

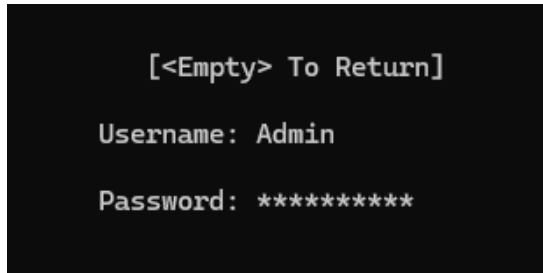
Animated Loading Page

When the user login successfully, an animated loading bar will be displayed, which the text is shown from the left to the right for about 1 second. Therefore, it can be more **attractive**.



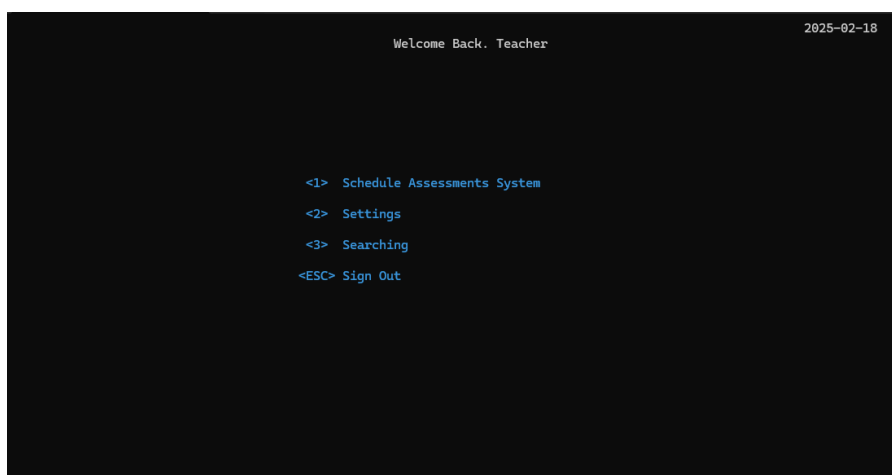
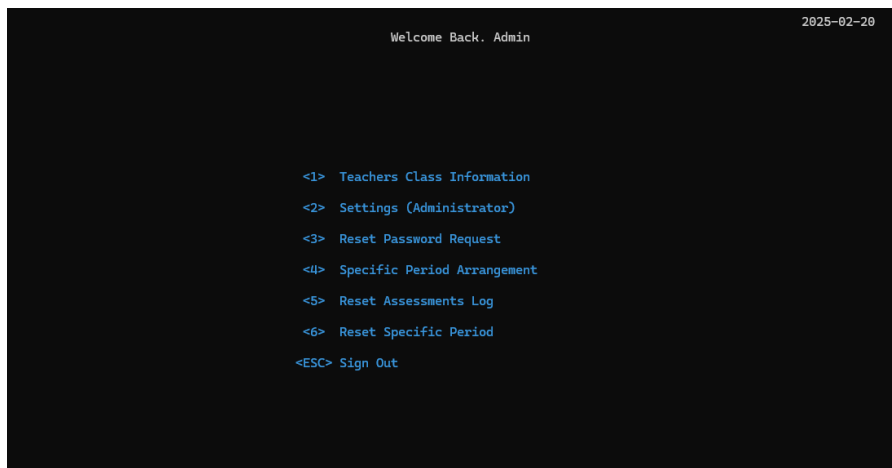
Login with masked Password

When the user is inputting the password, the password does not show on the screen. It **enhances the security** of the program.



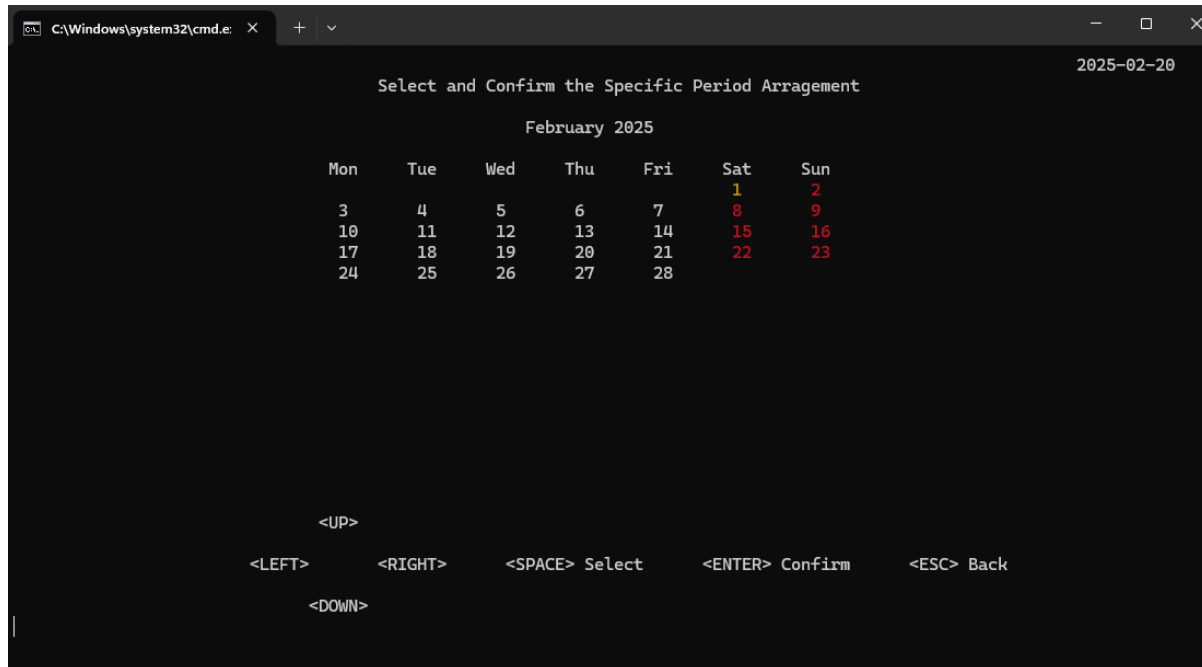
Accounting Control

There are 2 types of users, teachers or administrator. After login, teachers and administrator are authorized with different functions in the program.



Easy data input method

Users are mainly using keyboard by pressing the keys that specified in the program, which is **easier for users to use** and **fix the value input to prevent error**.



Colour Displaying

Different colour displaying can be **more attractive**. Besides, users can review some message clearly.



Stack

Stack algorithm is using in the program to **enhance the efficiency** of the program.

```
def add_assms(): # Adding assessment
    selected = [] #stack
    while len(selected) <= 5:
        if len(selected) == 0:
            item = choose_subject()
            if item == None:
                return schedule()
            else:
                selected.append(item)
        if len(selected) == 1:
            item = choose_assm_type()
            if item == None:
                selected.pop()
            else:
                selected.append(item)
        if len(selected) == 2:
            item = choose_month()
            if item == None:
                selected.pop()
            else:
                selected.append(item)
        if len(selected) == 3:
            item = choose_deadline(selected[2])
            if item == None:
                selected.pop()
            else:
                selected.append(item)
        if len(selected) == 4:
            inp_time = assm_time()
            if inp_time == None:
                selected.pop()
            else:
                selected.append(inp_time)
        if len(selected) == 5:
            assm_format1 = str(schedule_year) + "-" + "{
            assm_format2 = selected[0] + " " + selected[
            assm_deadline = assm_format1 + " " + assm_fo
            time = count_time(assm_format1)
            if time >= 5:
                for i in range(8):
```


Login Information and Password

This program has login function to identify if the user is teacher or administrator. In the login function, user should input their username and password. Administrator has an **administrator password** which uses to access some functions that only administrator can use, including create teachers' account. Teacher account can be created by administrator while the quantity of administrator account can only be one. After administrator created a teacher account, login information of teachers is stored in text files, username.txt, encrypted_pw.txt and default_pw.txt.

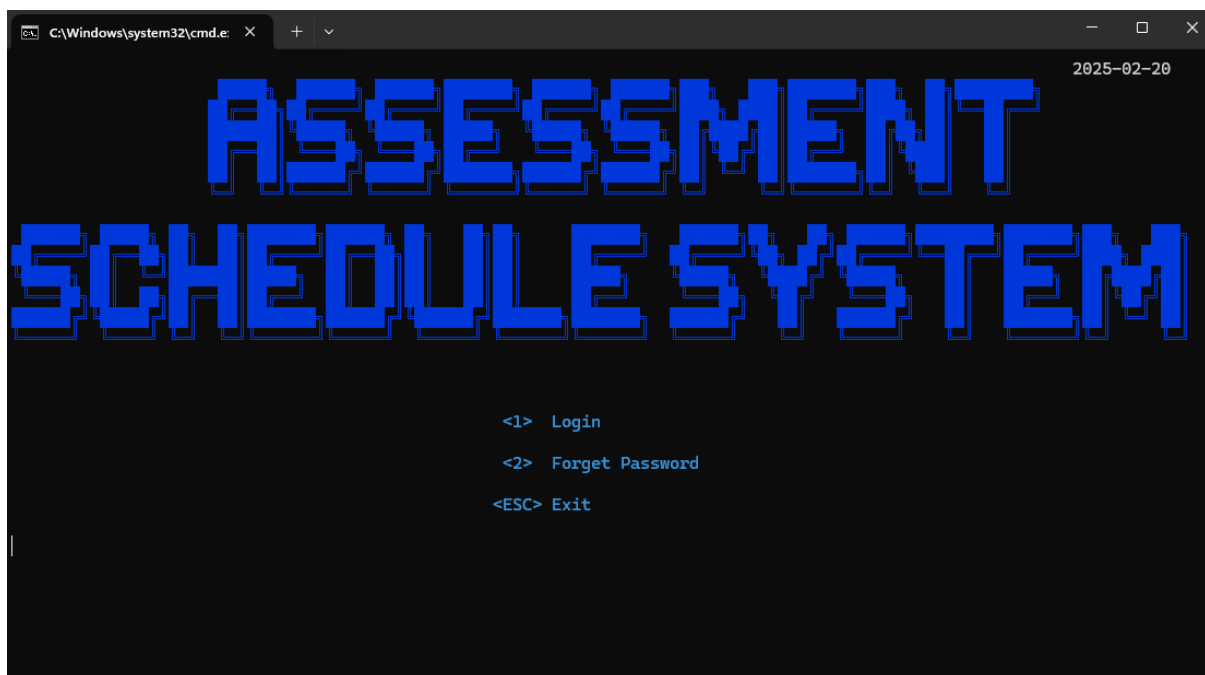
The username and passwords are as follows:

1. **Administrator username:** Admin **Password:** ASAdmin123
Administrator Password: iCTiStHEbEST001
 2. **Teacher username:** [Input name] **Default Password:** [Input name]12345
e.g. Username: Teacher Default Password: Teacher12345
-

User Manual

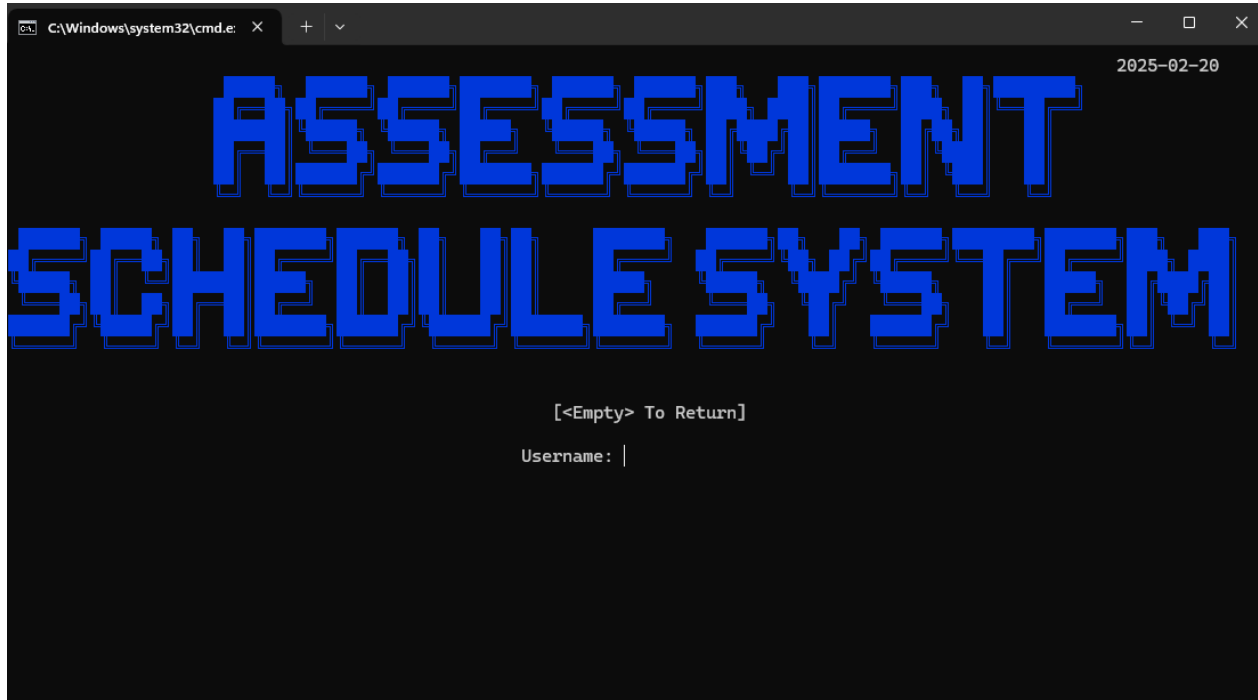
1.1 Menu Page

Press '1' button to enter to the **login page**.

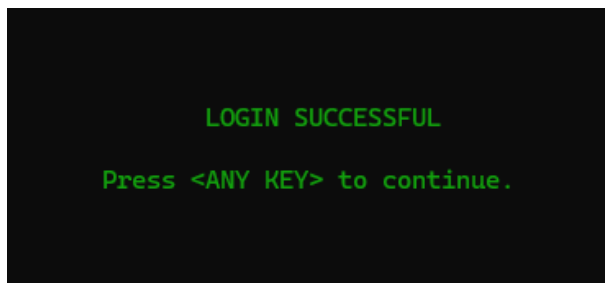
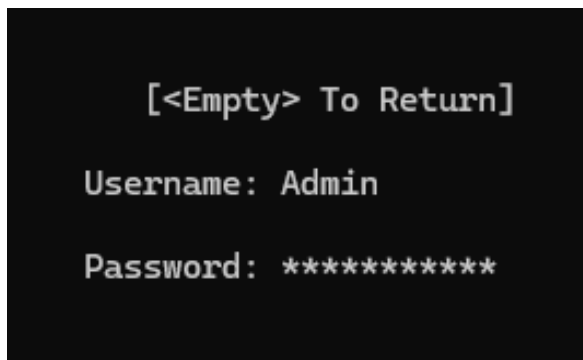


1.2 Login Page

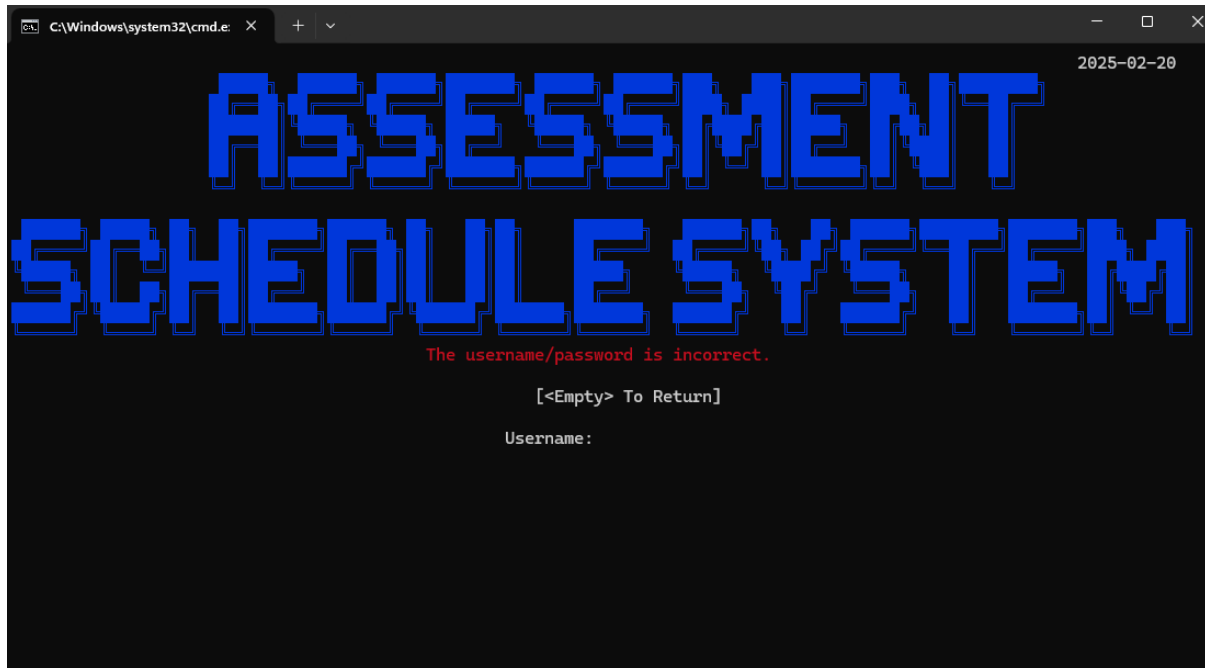
Users have to login before using the program. Enter the **username** and the **corresponding password**.



A Successful Login:

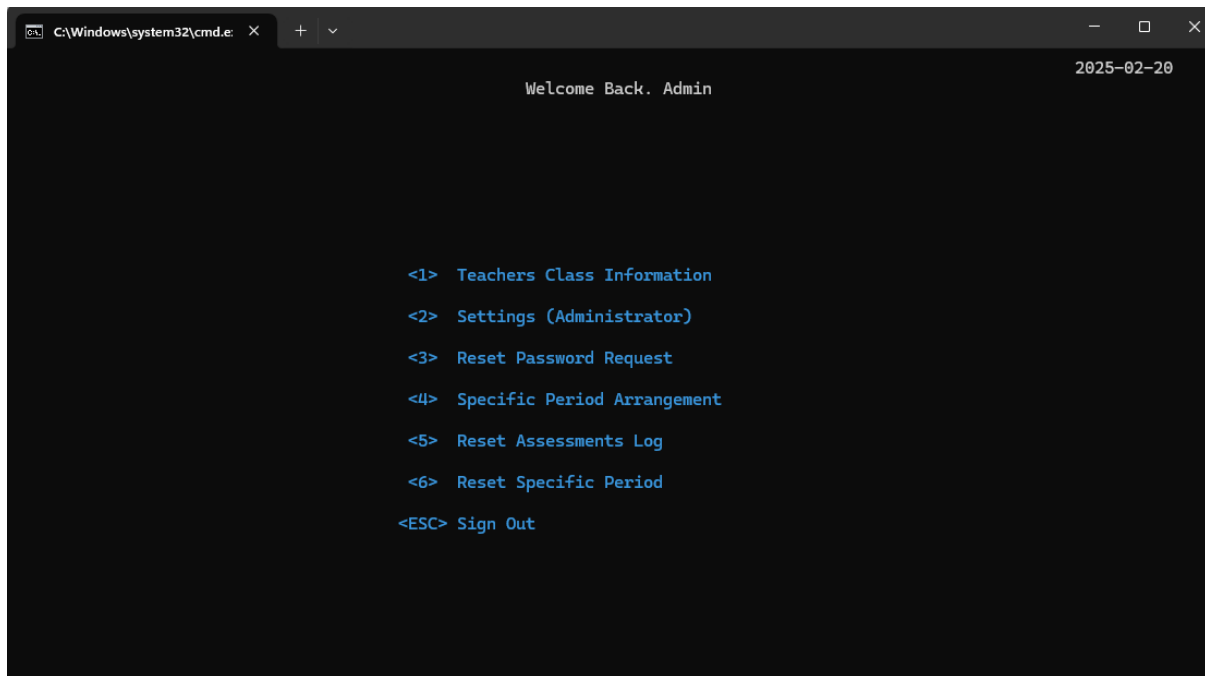


Unsuccessful Login:



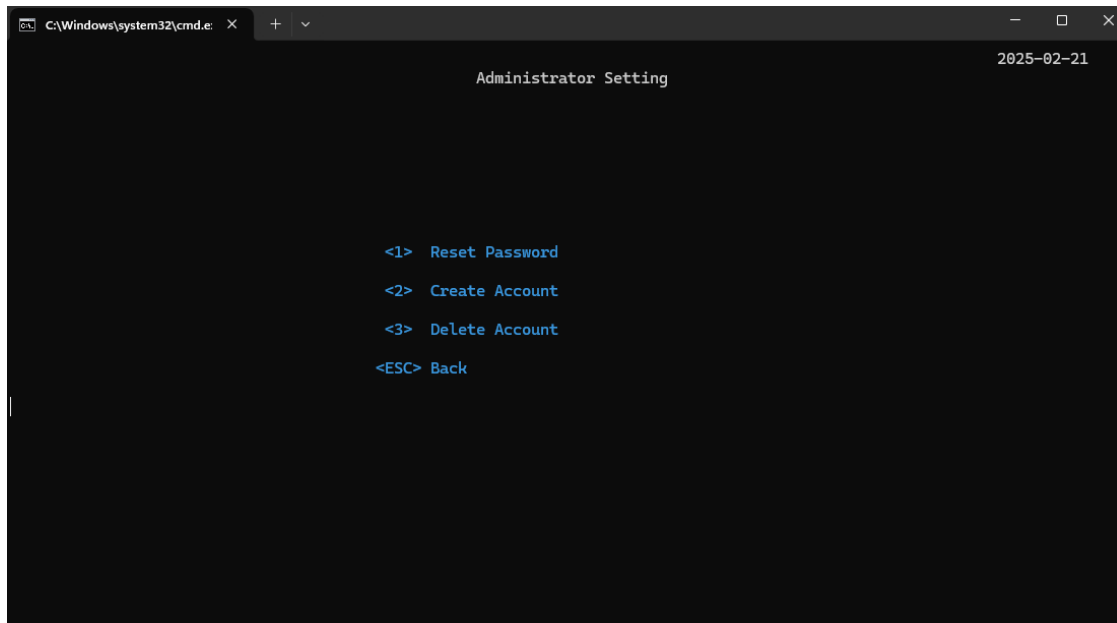
1.3 User Menu (Administrator)

Administrator Main Menu



1.4 Setting (Administrator)

Press '2' in main menu to enter **setting page**. There are 4 functions in the administrator setting page. Press '1' to enter the reset password function. Press '2' to enter the **create teachers' account** function. Press '3' to enter the **delete teachers' account** function.



1.5 Create Account (Administrator)

First, admin is required to **input the Administrator Password** when they use the function.



Incorrect Administrator Password Detected:

```
Administrator Password Incorrect.                                     2025-02-22

<Empty input> Exit
Enter the Administrator Password: |
```

Then, admin can input the **username of the teachers' account** (e.g. username: CCM) and it will show the information of the **username and default password of the account** which should give them to the teacher. After that, admin can press 'Enter' to continue **create other teachers' accounts** or 'ESC' to leave function.

```
<Empty input> Exit
Enter New Teacher Account Username: CCM|
```



```
Username: CCM      Default Password: CCM12345
SIGN UP SUCCESSFUL
Continue ?
<ENTER> Continue   <ESC> Return
```

When the **same username** is detected:

```
Username Has Been Used. Please Try Again                                     2025-02-22

<Empty input> Exit
Enter New Teacher Account Username: |
```

1.6 Edit Teachers Class Information (Administrator)

Press '2' in the main menu to enter the function. In this function, admin is required to **input the username of the teacher** to edit their class information the teacher teaches.

```
Which Teachers' account information you want to change?
<Empty input> Exit : |
```

Username **not found**:

```
User Not Found / Wrong Input.                                             2025-02-22

Which Teachers' account information you want to change?
<Empty input> Exit : |
```

Username found (e.g. CCM) and there is no class assigned:

```
There is no Class Assigned.
<1> Add Class      <ESC> Back
```

Then press '1' to **add class** or 'ESC' return to input username.

Admin can press 'left' or 'right' key to **select the first target** (e.g. F2) then press 'ENTER' to confirm the target. Pressing 'ESC' can return to previous page.



Press
'LEFT'



Press
'Right'



Press
'LEFT'

Press
'Right'

After that, admin can **select the second target** (e.g. C) by pressing 'left', 'right' key then press 'ENTER' to confirm. Pressing 'ESC' can return to previous page.

Press
'LEFT'



Press
'Right'



Press
'LEFT'



Press
'Right'

The class has been assigned (e.g. 1C) and **saved into the text file**. Admin can press 'ENTER' to **continue assign more classes** or 'ESC' to leave.

```
2C Assigned. Do you want to Assign More?  
<ENTER> Continue      <ESC> Back
```

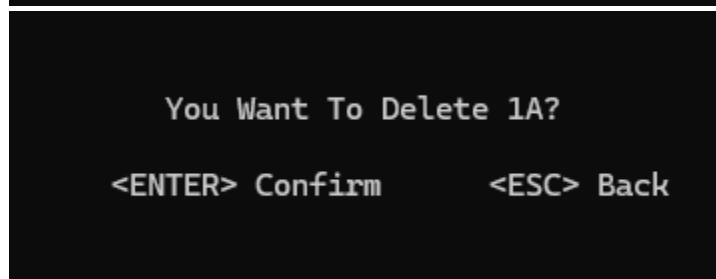
Error message:

```
This Class Has Already Been Assigned.  
Press <ANY KEY> To Return
```

After admin assigned the class for the teacher, the class information function will have one more function which can **delete class** by pressing '2' to enter the **delete class function**.

```
Current Class Assigned: 1A 1B 1C 1D  
                        2A 2B 2C 2D  
  
<1> Add Class      <2> Delete Class      <ESC> Back
```

Admin can **select the target** (e.g. 1A, 1B, 1C, 1D, 2A, 2B, 2D) by pressing 'UP', 'DOWN', 'LEFT', 'RIGHT' key. Then press 'ENTER' to confirm. Press 'ESC' can return to previous page.



```
Select the Class You Want to Delete

2C

<UP>
<LEFT>    <RIGHT>    <ENTER> Confirm    <ESC> Back
<DOWN>
```

```
Current Class Assigned: 2C

<1> Add Class    <2> Delete Class    <ESC> Back
```



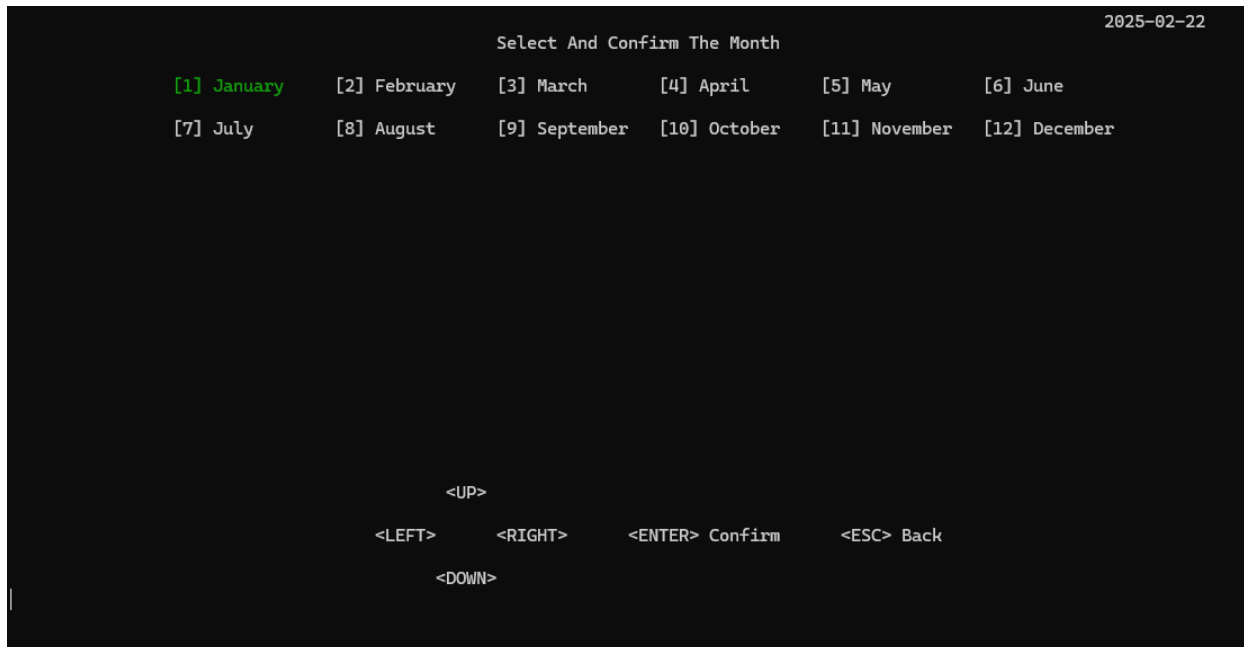
1.7 Specific Period Arrangement (Administrator)

Press '4' to enter in the menu to enter the function.

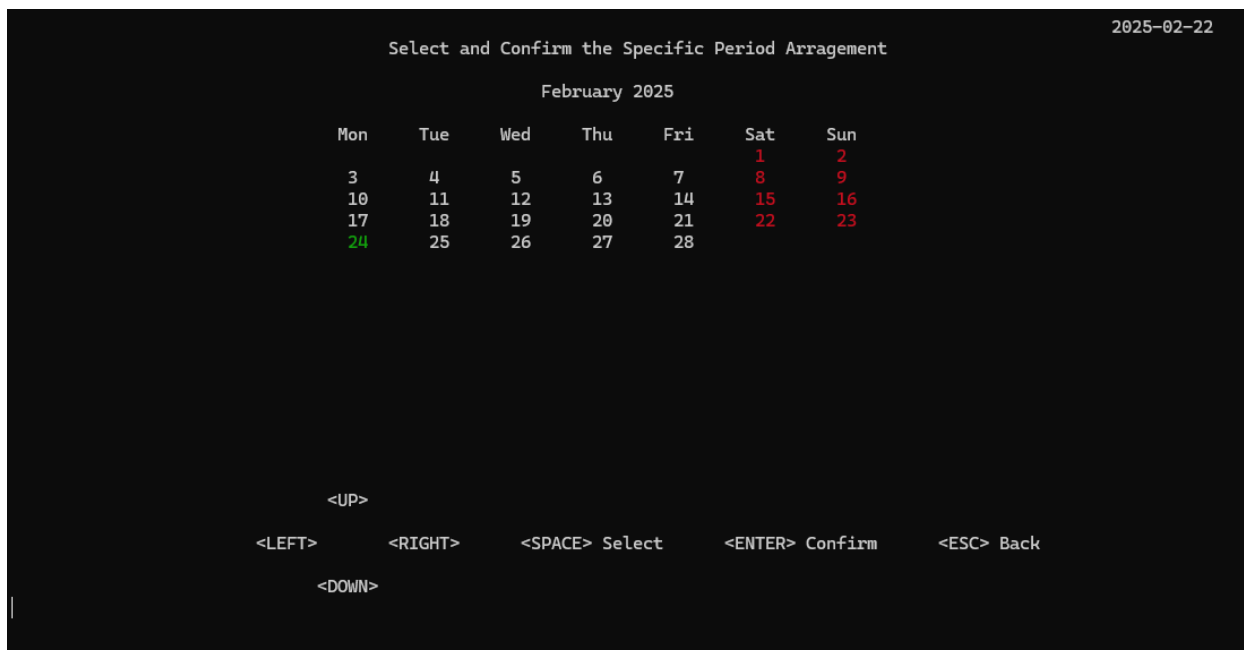
```
Welcome Back. Admin

<1> Teachers Class Information
<2> Settings (Administrator)
<3> Reset Password Request
<4> Specific Period Arrangement
<5> Reset Assessments Log
<6> Reset Specific Period
<ESC> Sign Out
```

Admin can select the **target month** (e.g. February) by pressing ‘UP’, ‘DOWN’, ‘LEFT’ or ‘RIGHT’ key. Then press ‘ENTER’ to confirm. Pressing ‘ESC’ can return to the previous page.



First, admin can select the target day, shown as green colour, (e.g. 24, 25) by pressing ‘UP’, ‘DOWN’, ‘LEFT’ or ‘RIGHT’ key. Second, admin can press ‘SPACE’ to highlight the target day from white to red which means teachers cannot assign any assessment on that day.



2025-02-22

Select and Confirm the Specific Period Arrangement

February 2025

Mon	Tue	Wed	Thu	Fri	Sat	Sun
3	4	5	6	7	1	2
10	11	12	13	14	8	9
17	18	19	20	21	15	16
24	25	26	27	28	22	23

<UP>
 <LEFT> <RIGHT> <SPACE> Select <ENTER> Confirm <ESC> Back
 <DOWN>

When admin is selecting the target day (e.g. 24) in red colour. The target shows in **yellow** colour. The admin can press 'SPACE' to change colour from red to white which means teachers **can assign assessment on that day**. Note that pressing 'ESC' can return to the previous page without update the text file.

2025-02-22

Select and Confirm the Specific Period Arrangement

February 2025

Mon	Tue	Wed	Thu	Fri	Sat	Sun
3	4	5	6	7	1	2
10	11	12	13	14	8	9
17	18	19	20	21	15	16
24	25	26	27	28	22	23

<UP>
 <LEFT> <RIGHT> <SPACE> Select <ENTER> Confirm <ESC> Back
 <DOWN>

Press
'SPACE'

2025-02-22

Select and Confirm the Specific Period Arrangement

February 2025

Mon	Tue	Wed	Thu	Fri	Sat	Sun
3	4	5	6	7	1	2
10	11	12	13	14	8	9
17	18	19	20	21	15	16
24	25	26	27	28	22	23

<UP>
 <LEFT> <RIGHT> <SPACE> Select <ENTER> Confirm <ESC> Back
 <DOWN>

At last, pressing 'ENTER' to confirm the arrangement and **saved in the text file**. Admin can press 'ENTER' again to **continue the arrangement** or 'ESC' to leave the function.

```
Specific Period Update SUCCESSFUL
Continue ?
<ENTER> Continue          <ESC> Return
```

2.1 First Login (Teacher)

Now, back to teacher login (e.g. username: CCM Default password: CCM12345). After a **successful login** of teacher account, it will detect if the user is using the **default password**. If yes, user is required to **change the password**.

```
[<Empty> To Return]
Username: CCM
Password: *****|
```

```
LOGIN SUCCESSFUL
Press <ANY KEY> to continue.
```



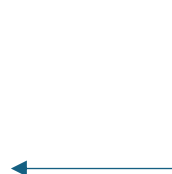
```
First Login Detected
Please Change your password. Press <ANY KEY> To Continue
```

The new password must include at least 8 characters with at least 1 number, 1 capital letter and 1 small letter.

```
2025-02-22  
  
Password must include at least 8 characters (at least 1 number, 1 capital letter and 1 small letter)  
Password must not contain any blank space  
  
<Empty input> Exit  
Enter the New Password: |
```

```
2025-02-22  
  
Password must include at least 8 characters (at least 1 number, 1 capital letter and 1 small letter)  
Password must not contain any blank space  
  
<Empty input> Exit  
Enter the New Password: Newpassword123  
Enter the New Password again: Newpassword123|
```

```
RESET PASSWORD SUCCESSFUL  
Press <ANY KEY> to continue.
```



Error message:

```
Enter the New Password: CCM12345|
```



```
The Password Should Not Be Same. 2025-02-22  
  
Password must include at least 8 characters (at least 1 number, 1 capital letter and 1 small letter)  
Password must not contain any blank space  
  
<Empty input> Exit  
Enter the New Password: |
```

```
Enter the New Password: Newpassword  
Enter the New Password again: Newpassword|
```



```
The New Password Does Not Meet Requirements 2025-02-22  
  
Password must include at least 8 characters (at least 1 number, 1 capital letter and 1 small letter)  
Password must not contain any blank space  
  
<Empty input> Exit  
Enter the New Password: |
```

```
Enter the New Password: Newpassword123
Enter the New Password again: Newpassword000|
```



```
Two New Password are not the same                                     2025-02-22

Password must include at least 8 characters (at least 1 number, 1 capital letter and 1 small letter)
Password must not contain any blank space

<Empty input> Exit

Enter the New Password: |
```

2.2 Schedule Assessments System (Teacher)

Press '1' in the teacher menu to enter the function.

```
Welcome Back. CCM

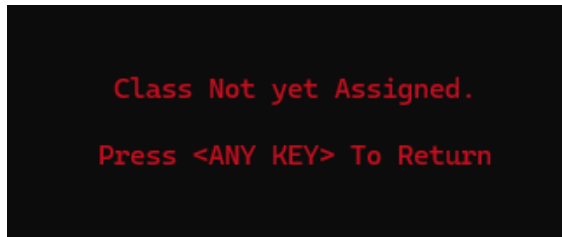
<1> Schedule Assessments System
<2> Settings
<3> Searching
<ESC> Sign Out
```

In the function, teacher can see the class(es) which the administrator assigned for them.

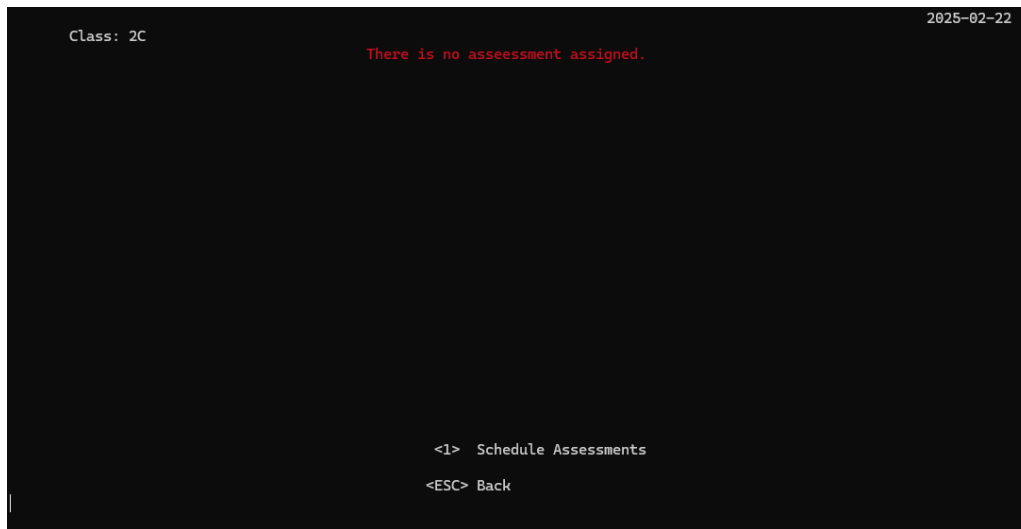
```
Please Select the Class

<1> 2C
<ESC> Leave
```


When the administrator **has not assigned classes** for them:



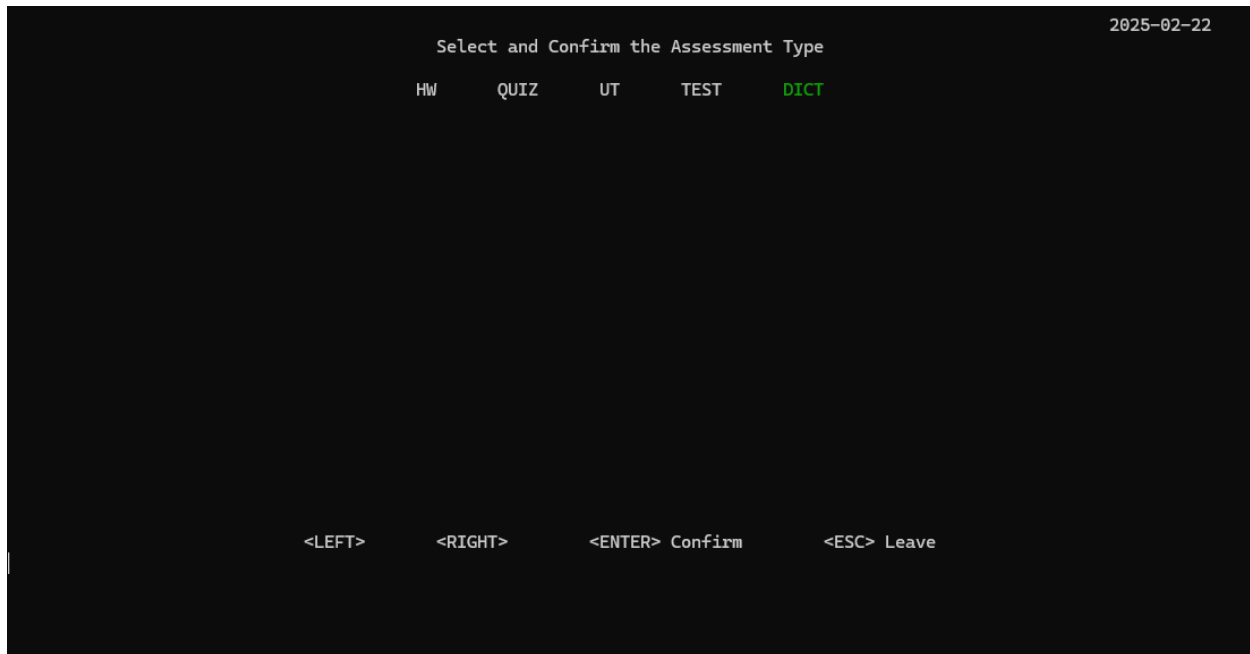
In the function, user can press '1' to **schedule assessments**. Pressing 'ESC' can return to the previous page.



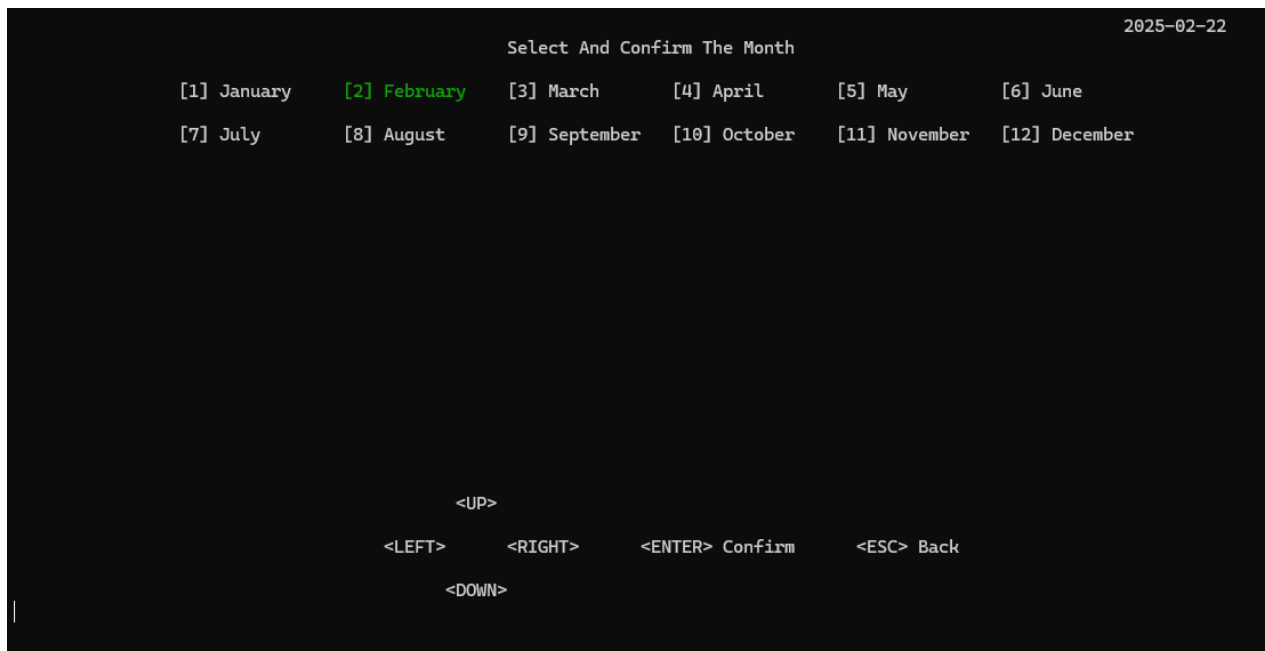
After pressing '1', user is going to **select four targets and input one target** about the assessment (subject, type, month, date, time spend) they want to schedule. First, user can **select the subject** (e.g. CHIN) by pressing 'UP', 'DOWN', 'LEFT' or 'RIGHT' key. Then press 'ENTER' to confirm. Pressing 'ESC' can return to the previous page.



Second, the user can select **the assessment type** (e.g. DICT) by pressing 'LEFT' or 'RIGHT' key. Then press 'ENTER' to confirm. Pressing 'ESC' can return to the previous page.



Third, the user can select **the month** (e.g. February) by pressing 'UP', 'DOWN', 'LEFT' or 'RIGHT' key. Then press 'ENTER' to confirm. Pressing 'ESC' can return to the previous page.



Fourth, the user can **select the date/deadline** (e.g. 27) by pressing 'UP', 'DOWN', 'LEFT' or 'RIGHT' key. Then press 'ENTER' to confirm. Pressing 'ESC' can return to the previous page.

Select and Confirm the Deadline of Assessment 2025-02-22

February 2025

Mon	Tue	Wed	Thu	Fri	Sat	Sun
3	4	5	6	7	1	2
10	11	12	13	14	8	9
17	18	19	20	21	15	16
24	25	26	27	28	22	23

<UP>

<LEFT> <RIGHT> <ENTER> Confirm <ESC> Back

<DOWN>

User **cannot schedule** any assessment where the date is highlighted in red colour (e.g. 25).

Select and Confirm the Deadline of Assessment 2025-02-22

February 2025

Mon	Tue	Wed	Thu	Fri	Sat	Sun
3	4	5	6	7	1	2
10	11	12	13	14	8	9
17	18	19	20	21	15	16
24	25	26	27	28	22	23

<UP>

<LEFT> <RIGHT> <ENTER> Confirm <ESC> Back

<DOWN>

Finally, the user can **input a number** between 0.1 to 5 hrs which they think the assessment will spend (e.g. 0.2). Then press 'ENTER' to confirm. Empty input can return to the previous page.

```
<Empty> To Return  
How much time does your assessment spend (0.1 - 5hrs): 0.2|
```

Error message:

```
<Empty> To Return  
How much time does your assessment spend (0.1 - 5hrs): 0|
```

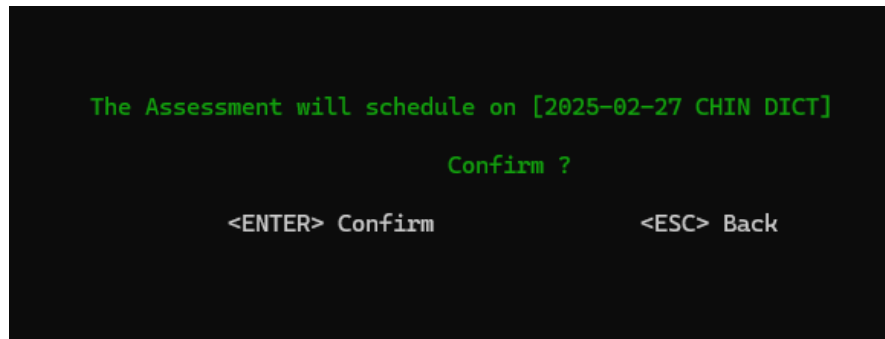
```
<Empty> To Return  
How much time does your assessment spend (0.1 - 5hrs): Hello|
```

```
<Empty> To Return  
How much time does your assessment spend (0.1 - 5hrs): 6|
```

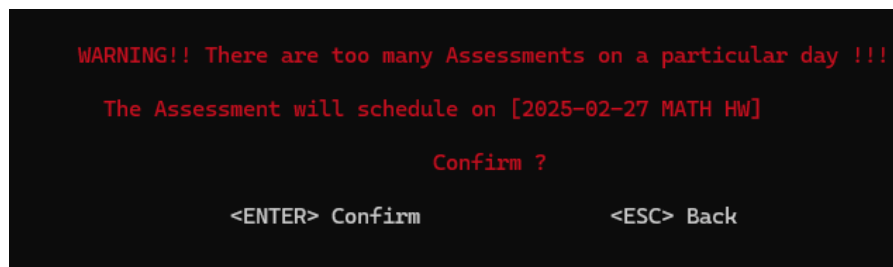
```
Wrong Input! Enter Again.
```

```
<Empty> To Return  
How much time does your assessment spend (0.1 - 5hrs): |
```

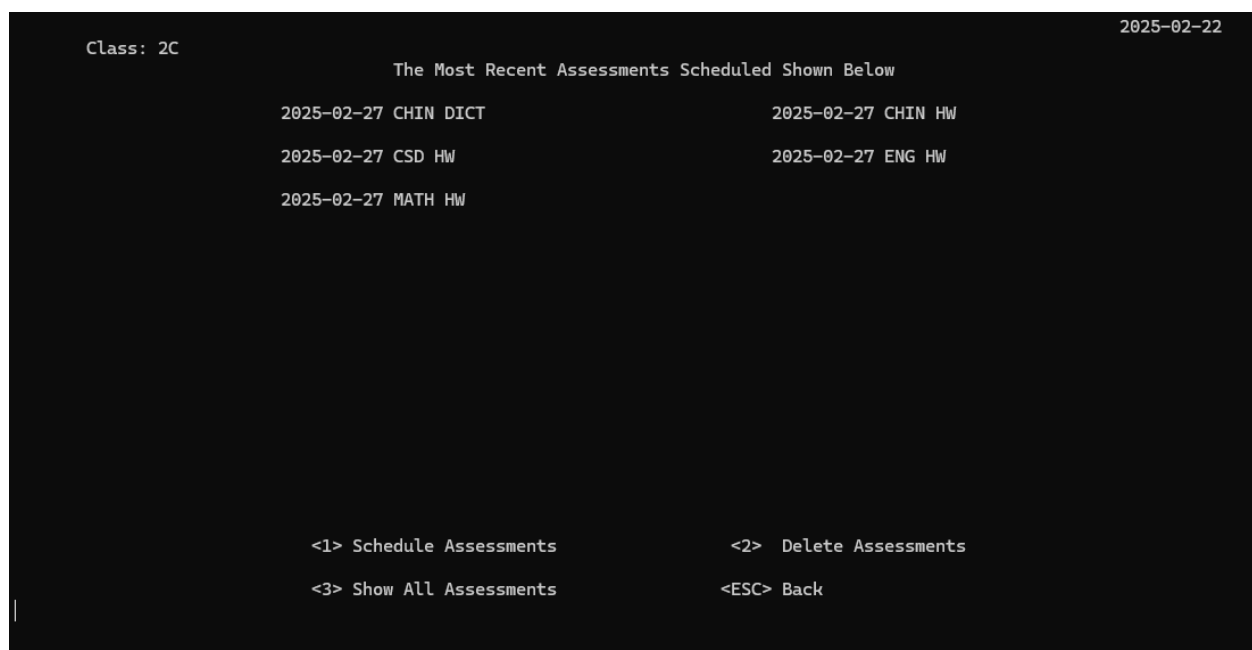
User can press 'ENTER' after checking the assessment is correct. Press 'ESC' can return to the previous page.



If the total time spend of assessments in a day **more than or equal to 5 hours**. The system will show **an alert** message to the user.



After scheduling assessments, all the assessments will be **sorted in ascending order**. Also, there are two more functions (Delete Assessments, Show All Assessments') user can use. Press '3' to enter the **"Show All Assessments" function**



In this function, it shows **all the assessments** scheduled by the teacher.

Page 1	Assessments Shown Below:	2025-02-22
	2025-02-27 CHIN DICT	0.2 hour(s)
	2025-02-27 CHIN HW	1.0 hour(s)
	2025-02-27 CSD HW	1.5 hour(s)
	2025-02-27 ENG HW	2.0 hour(s)
	2025-02-27 MATH HW	2.0 hour(s)
<ESC> Leave		

When there are **too many assessments**, the page only shows the most recent 6 assessments. Also, in the “**Show All Assessments**” function, there will have more buttons so that the user can change the page to see all the assessments.

Class: 2C	The Most Recent Assessments Scheduled Shown Below	2025-02-22
2025-02-27 CHIN DICT	2025-02-27 CHIN DICT	
2025-02-27 CHIN DICT	2025-02-27 CHIN DICT	
2025-02-27 CHIN DICT	2025-02-27 CHIN HW	
And More.....		
<1> Schedule Assessments	<2> Delete Assessments	
<3> Show All Assessments	<ESC> Back	

Page 1 2025-02-22

Assessments Shown Below:

2025-02-27	CHIN DICT	0.2 hour(s)
2025-02-27	CHIN DICT	0.2 hour(s)
2025-02-27	CHIN DICT	0.2 hour(s)
2025-02-27	CHIN DICT	0.2 hour(s)
2025-02-27	CHIN DICT	0.2 hour(s)
2025-02-27	CHIN HW	1.0 hour(s)
2025-02-27	CHIN HW	1.0 hour(s)
2025-02-27	CHIN HW	1.0 hour(s)
2025-02-27	CHIN HW	1.0 hour(s)
2025-02-27	CHIN HW	1.0 hour(s)

<RIGHT> Next Page <ESC> Leave

Press
'LEFT'

Press
'Right'

Page 2 2025-02-22

Assessments Shown Below:

2025-02-27	CSD HW	1.5 hour(s)
2025-02-27	CSD HW	1.5 hour(s)
2025-02-27	CSD HW	1.5 hour(s)
2025-02-27	CSD HW	1.5 hour(s)
2025-02-27	CSD HW	1.5 hour(s)
2025-02-27	ENG HW	2.0 hour(s)
2025-02-27	ENG HW	2.0 hour(s)
2025-02-27	ENG HW	2.0 hour(s)
2025-02-27	ENG HW	2.0 hour(s)
2025-02-27	ENG HW	2.0 hour(s)

<LEFT> Previous Page <RIGHT> Next Page <ESC> Leave

Press
'LEFT'

Press
'Right'

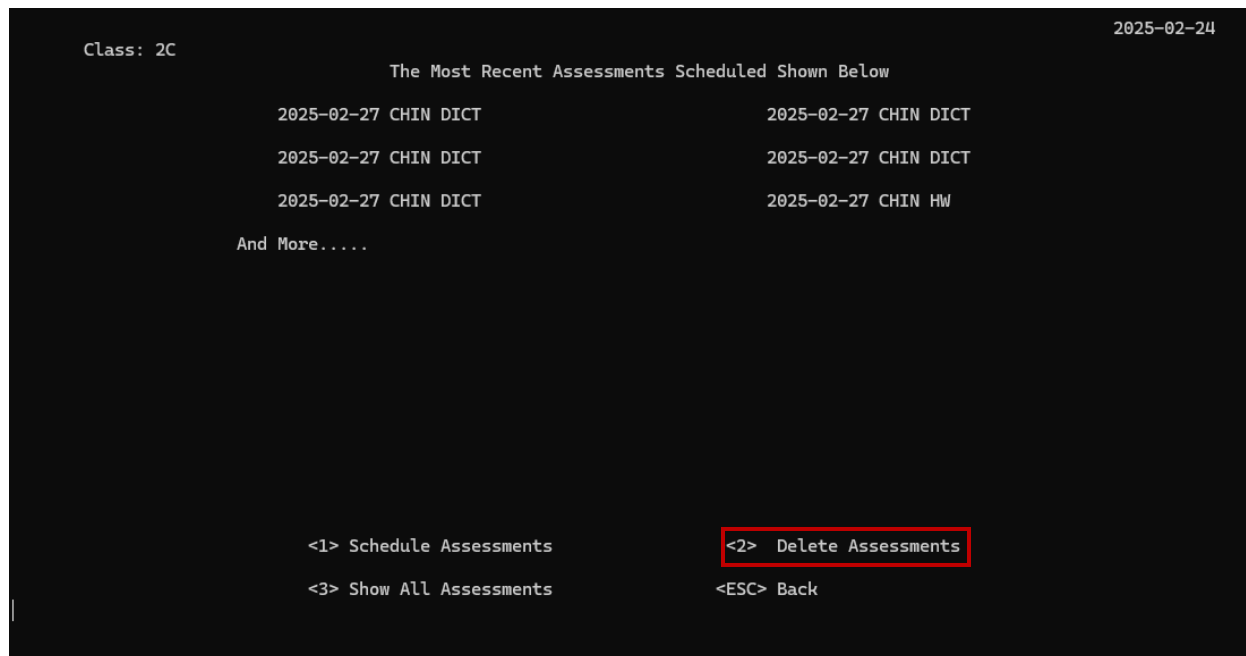
Page 3 2025-02-22

Assessments Shown Below:

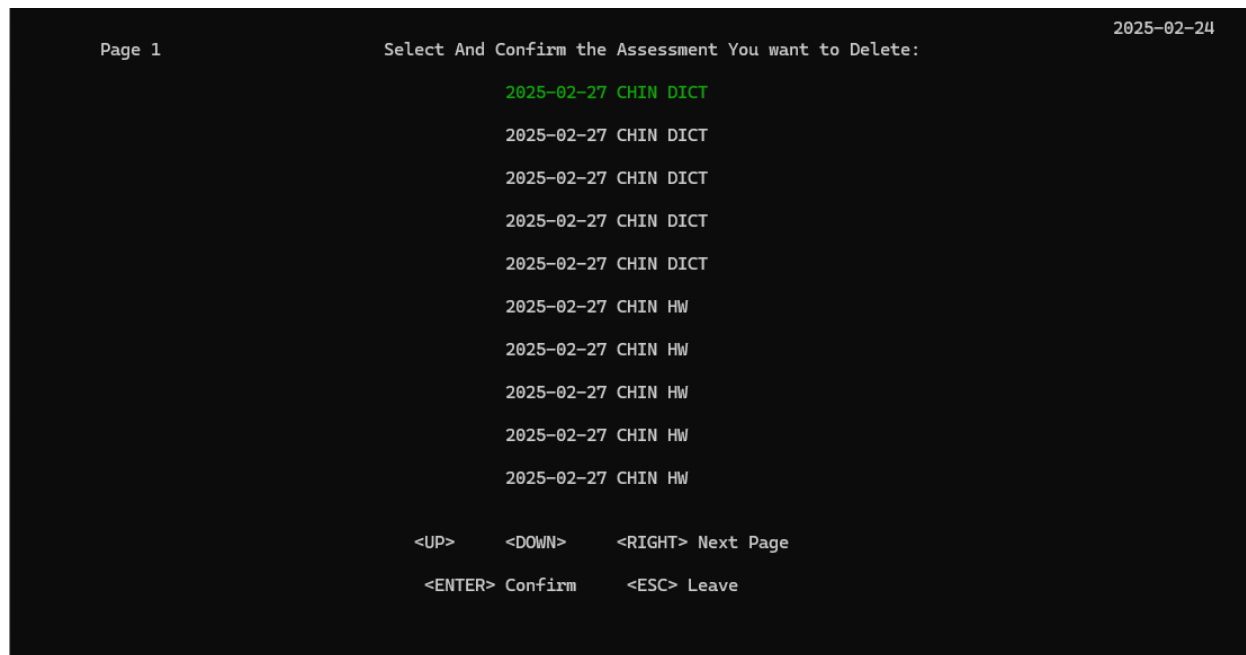
2025-02-27	MATH HW	2.0 hour(s)
2025-02-27	MATH HW	2.0 hour(s)
2025-02-27	MATH HW	2.0 hour(s)
2025-02-27	MATH HW	2.0 hour(s)
2025-02-27	MATH HW	2.0 hour(s)

<LEFT> Previous Page <ESC> Leave

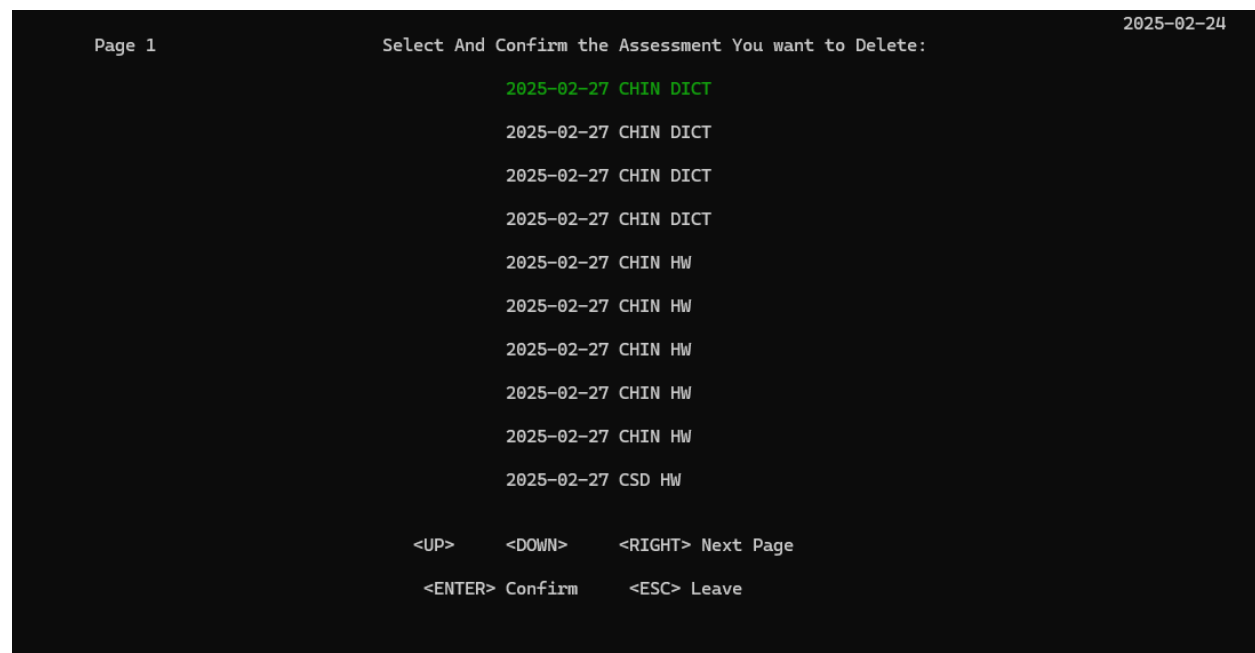
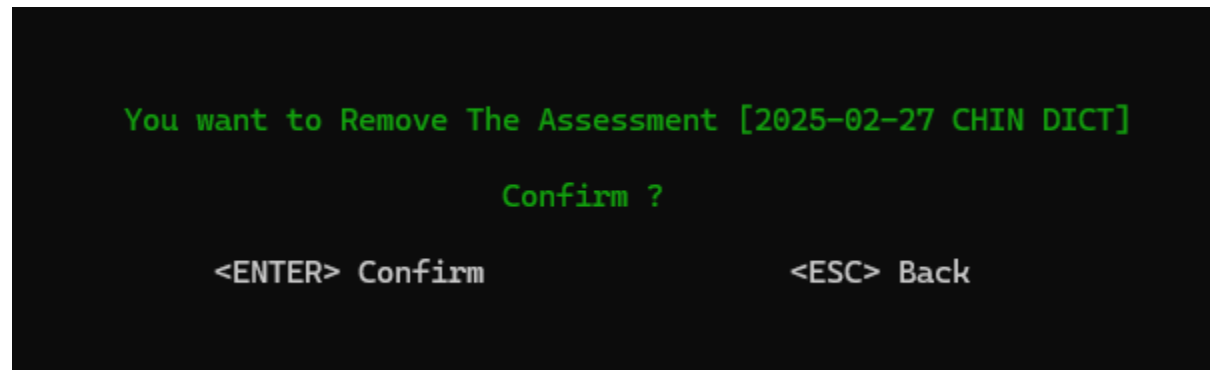
If teacher wants to remove the assessment scheduled in system. Press '2' in the function page shown below to enter the **"Delete Assessments" function.**



User can select **the target assessment** by pressing 'UP' or 'DOWN' key. Then press 'ENTER' to confirm. Pressing 'ESC' to leave this function and return to the previous page.



Press 'ENTER' key again to **confirm** the deletion. Press 'ESC' key can return to the previous page.



Similarly, it has **multiple page detection**.

```
Page 1                                2025-02-24
Select And Confirm the Assessment You want to Delete:

2025-02-27 CHIN DICT
2025-02-27 CHIN DICT
2025-02-27 CHIN DICT
2025-02-27 CHIN DICT
2025-02-27 CHIN HW
2025-02-27 CHIN HW
2025-02-27 CHIN HW
2025-02-27 CHIN HW
2025-02-27 CHIN HW
2025-02-27 CSD HW

<UP>      <DOWN>      <RIGHT> Next Page
<ENTER> Confirm  <ESC> Leave
```

Press
'LEFT'

Press
'Right'

```
Page 2                                2025-02-24
Select And Confirm the Assessment You want to Delete:

2025-02-27 CSD HW
2025-02-27 CSD HW
2025-02-27 CSD HW
2025-02-27 CSD HW
2025-02-27 ENG HW
2025-02-27 ENG HW
2025-02-27 ENG HW
2025-02-27 ENG HW
2025-02-27 ENG HW
2025-02-27 MATH HW

<UP>      <DOWN>      <LEFT> Previous Page  <RIGHT> Next Page
<ENTER> Confirm  <ESC> Leave
```

Press
'LEFT'

Press
'Right'

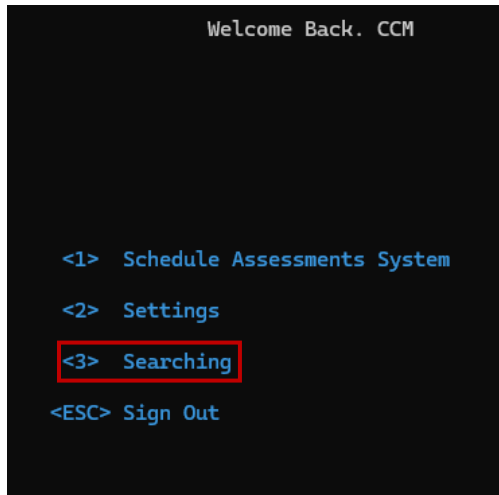
```
Page 3                                2025-02-24
Select And Confirm the Assessment You want to Delete:

2025-02-27 MATH HW
2025-02-27 MATH HW
2025-02-27 MATH HW
2025-02-27 MATH HW

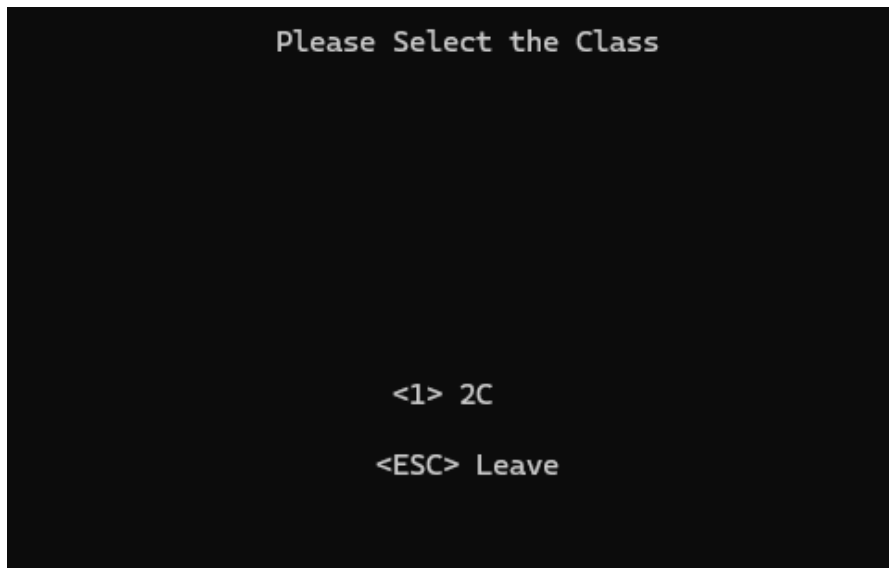
<UP>      <DOWN>      <LEFT> Previous Page
<ENTER> Confirm  <ESC> Leave
```

2.3 Searching (Teacher)

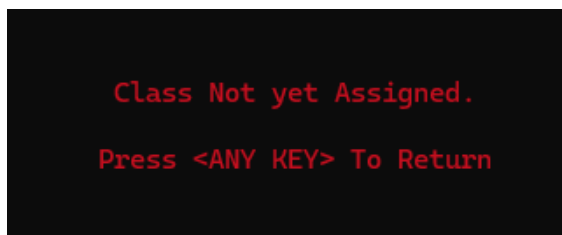
Press '3' in the teacher menu to enter the function.




In the function, teacher can also see the class(es) which the administrator assigned for them.



When the administrator has not assigned classes for them (same as Schedule Assessment System):



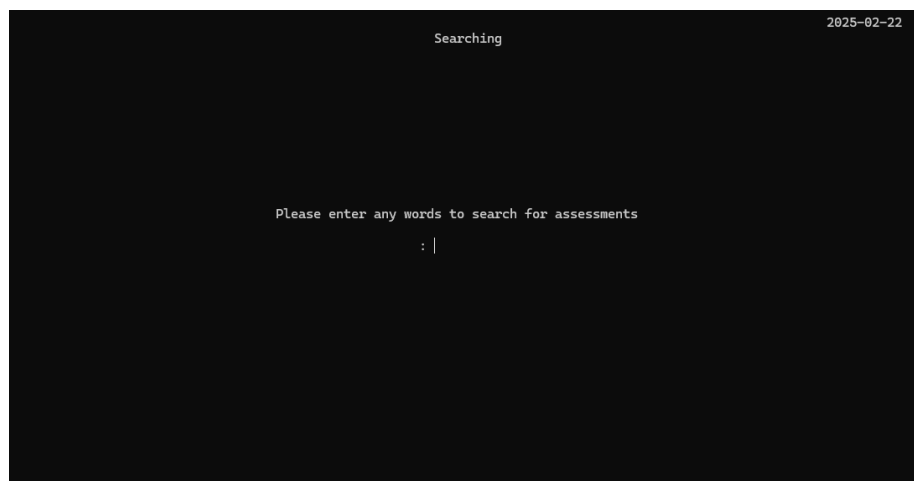
In this function, the system will **automatically detect if there are any assessment is outdated** (e.g. current date: 2025-02-22). If yes, those assessments will be sent to other text file and stored as the assessment record.



2C_assessments.txt		
File	Edit	View
2024-11-08	ENG QUIZ	2.0
2024-11-11	MATH TEST	2.0
2024-11-12	CHIN DICT	2.0
2024-11-13	CHEM HW	2.0
2024-11-14	M2 HW	2.0
2024-11-15	ENG HW	2.0
2024-11-18	MATH UT	2.0

2C_assessments_hw_log		
File	Edit	View
2024-11-08	ENG QUIZ	
2024-11-11	MATH TEST	
2024-11-12	CHIN DICT	
2024-11-13	CHEM HW	
2024-11-14	M2 HW	
2024-11-15	ENG HW	
2024-11-18	MATH UT	

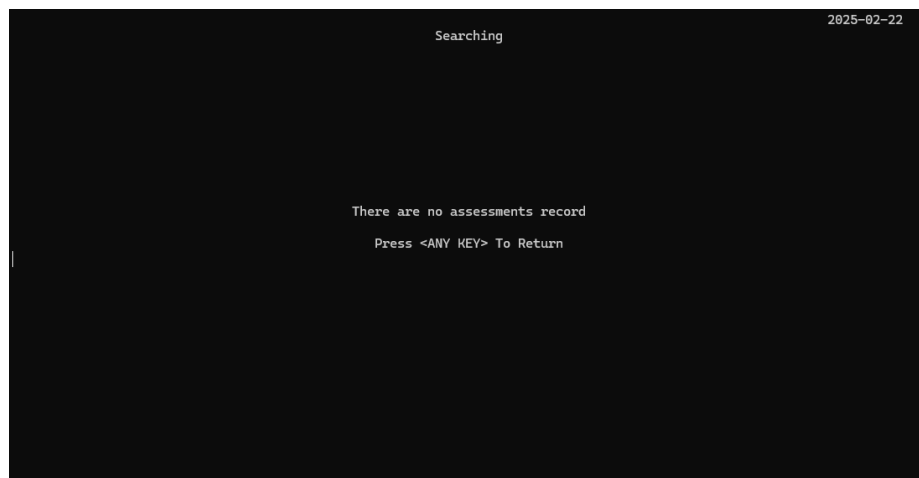
User can input **any word** (including space) to search for assessment records. Empty input to return to previous page.



```
Searching 2025-02-22

Please enter any words to search for assessments
: |
```

When there are **no assessments record**



```
Searching 2025-02-22

There are no assessments record

Press <ANY KEY> To Return

|
```

After user inputted, it shows the **search result** on the screen. The user can press 'ENTER' to search again or press 'ESC' to leave the function.

```
Please enter any words to search for assessments
: eng|
```

```
Searching 2025-02-22
The search result for "ENG" is as follow. There are 2 result(s) found.
1. 2024-11-08 ENG QUIZ
2. 2024-11-15 ENG HW

<ENTER> Search Again  <ESC> Return
```

```
Please enter any words to search for assessments
: 11|
```

```
Searching 2025-02-22
The search result for "11" is as follow. There are 7 result(s) found.
1. 2024-11-08 ENG QUIZ
2. 2024-11-11 MATH TEST
3. 2024-11-12 CHIN DICT
4. 2024-11-13 CHEM HW
5. 2024-11-14 M2 HW
6. 2024-11-15 ENG HW
7. 2024-11-18 MATH UT

<ENTER> Search Again  <ESC> Return
```

Please enter any words to search for assessments

: 100|

Searching

The search result for "100" is as follow.

No assessment Found.

<ENTER> Search Again

<ESC> Return

3. Sign Out (Both)

User can **sign out** by pressing the 'ESC' key.

<1> Teachers Class Information

<2> Settings (Administrator)

<3> Reset Password Request

<4> Specific Period Arrangement

<5> Reset Assessments Log

<6> Reset Specific Period

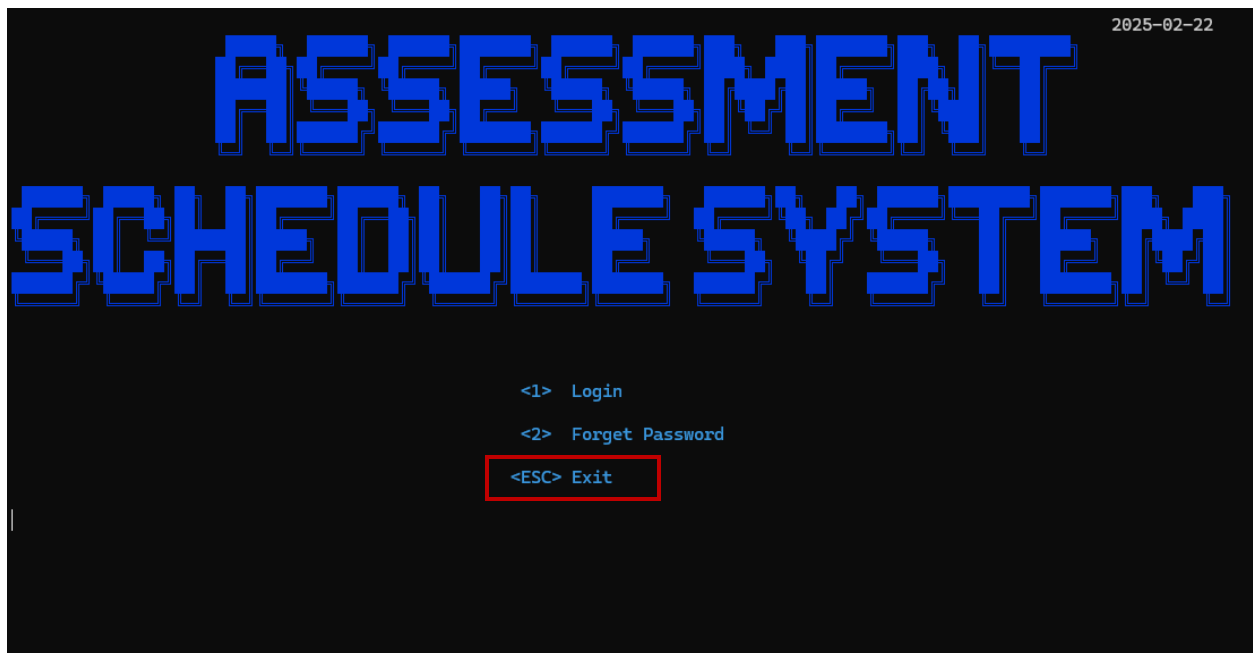
<ESC> Sign Out

<1> Schedule Assessments System

<2> Settings

<3> Searching

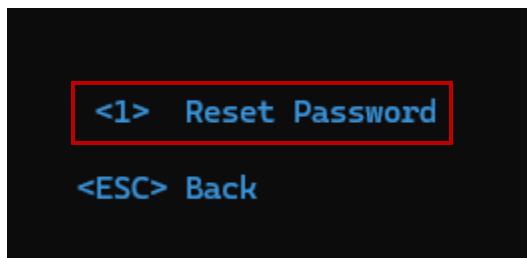
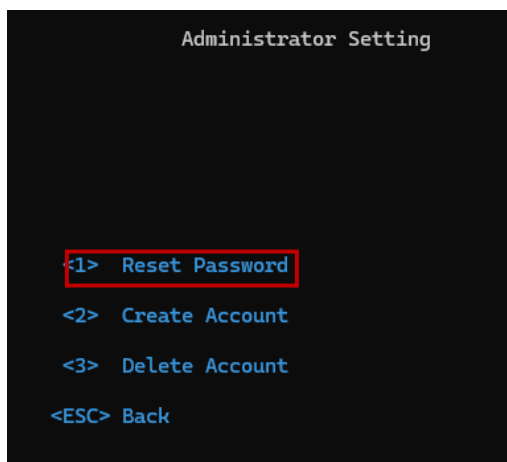
<ESC> Sign Out



Additional Function

1. Reset Password (Both)

Press '1' in the setting to enter the function.



In this function, user is required to **enter the old password and twice of the new password**. The new password **must include at least 8 characters with at least 1 number, 1 capital letter and 1 small letter**. (Administrator and teachers are using the same function. Use administrator account as an example.)

```
2025-02-24

Password must include at least 8 characters (at least 1 number, 1 capital letter and 1 small letter)
Password must not contain any blank space

<Empty input> Exit

Enter the Old Password:
```

```
2025-02-24

Password must include at least 8 characters (at least 1 number, 1 capital letter and 1 small letter)
Password must not contain any blank space

<Empty input> Exit

Enter the Old Password: ASAdmin123
Enter the New Password: ASAdmin234
Enter the New Password again: ASAdmin234
```

```
RESET PASSWORD SUCCESSFUL

Please Login Again

Press <ANY KEY> to continue.
```

```
2025-02-24

ASSESSMENT
SCHEDULE SYSTEM

<1> Login
<2> Forget Password
<ESC> Exit
```


Error message:

```
Enter the Old Password: ASAdmin
```

The Old Password is incorrect

2025-02-24

Password must include at least 8 characters (at least 1 number, 1 capital letter and 1 small letter)
Password must not contain any blank space

<Empty input> Exit

Enter the Old Password:

```
Enter the Old Password: ASAdmin123
Enter the New Password: Abc
Enter the New Password again: Abc
```

The New Password Does Not Meet Requirements

2025-02-24

Password must include at least 8 characters (at least 1 number, 1 capital letter and 1 small letter)
Password must not contain any blank space

<Empty input> Exit

Enter the Old Password:

```
Enter the Old Password: ASAdmin123
Enter the New Password: ASAdmin234
Enter the New Password again: ASAdmin23
```

Two New Password are not the same

2025-02-24

Password must include at least 8 characters (at least 1 number, 1 capital letter and 1 small letter)
Password must not contain any blank space

<Empty input> Exit

Enter the Old Password:

```
Enter the Old Password: ASAdmin123
Enter the New Password: ASAdmin123
```

The Password Should Not Be Same.

2025-02-24

Password must include at least 8 characters (at least 1 number, 1 capital letter and 1 small letter)
Password must not contain any blank space

<Empty input> Exit

(Teachers' account only)

```
Enter the Old Password: Ccm123456
Enter the New Password: CCM12345
```

The Password Should Not Be Same As Default Password.

2025-02-24

Password must include at least 8 characters (at least 1 number, 1 capital letter and 1 small letter)
Password must not contain any blank space

<Empty input> Exit

Enter the Old Password:

2. Delete Account (Administrator)

Press '3' in the administrator setting page to enter the function.

Administrator Setting

<1> Reset Password

<2> Create Account

<3> Delete Account

<ESC> Back

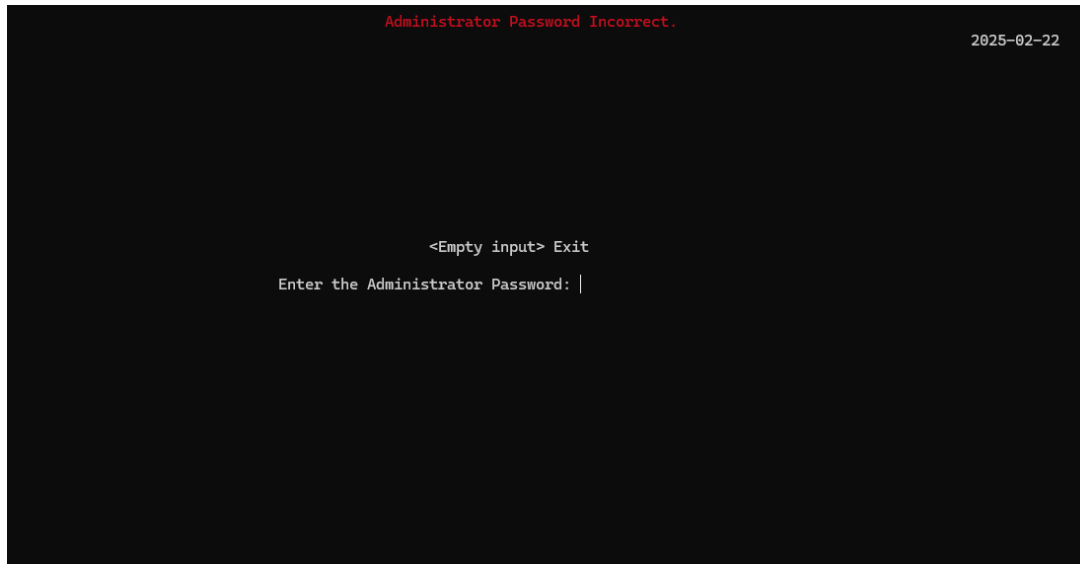
Admin is required to input **the Administrator Password** when they use the function.

2025-02-22

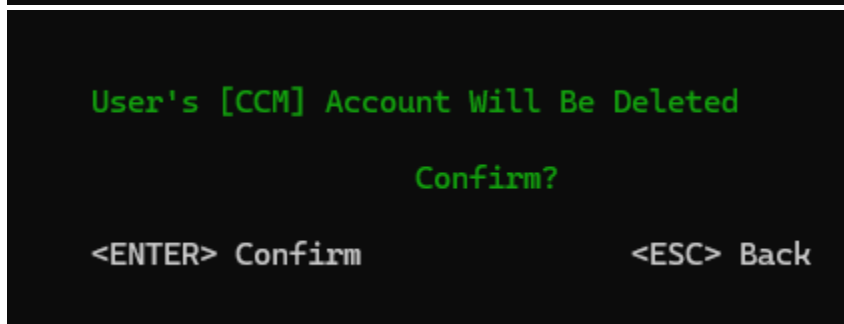
<Empty input> Exit

Enter the Administrator Password: |

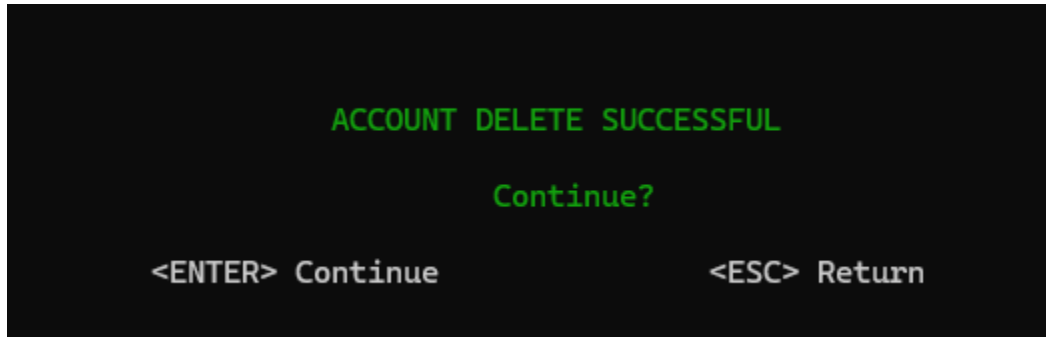
Incorrect Administrator Password Detected:



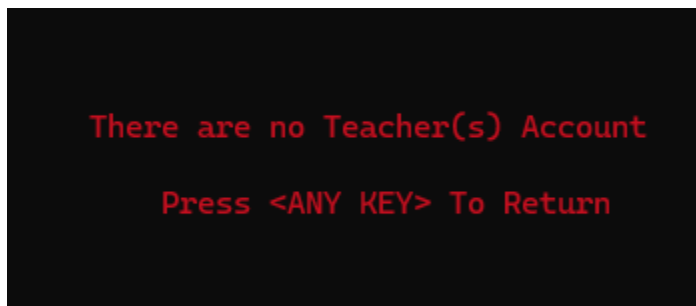
In this function, user can **select the target** (e.g. CCM) by pressing 'UP' or 'DOWN' key. Then press 'ENTER' to confirm. Pressing 'ESC' to leave the function.



Pressing 'ENTER' to **continue the deletion** of teachers' account. Pressing 'ESC' to leave the function.

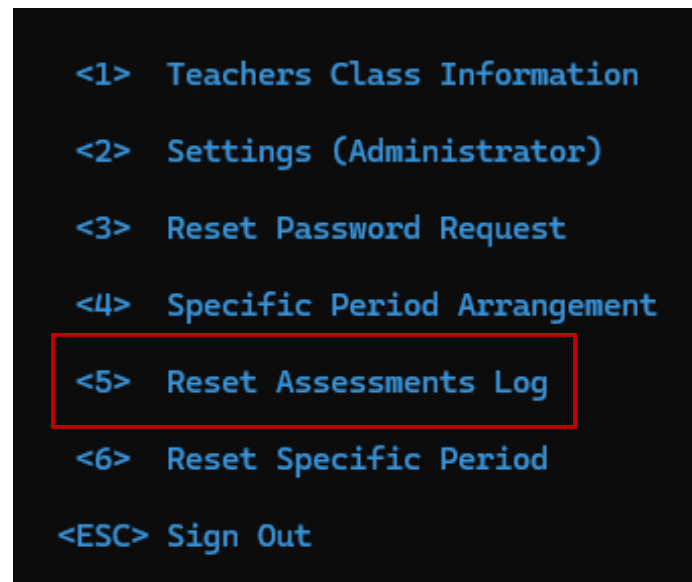


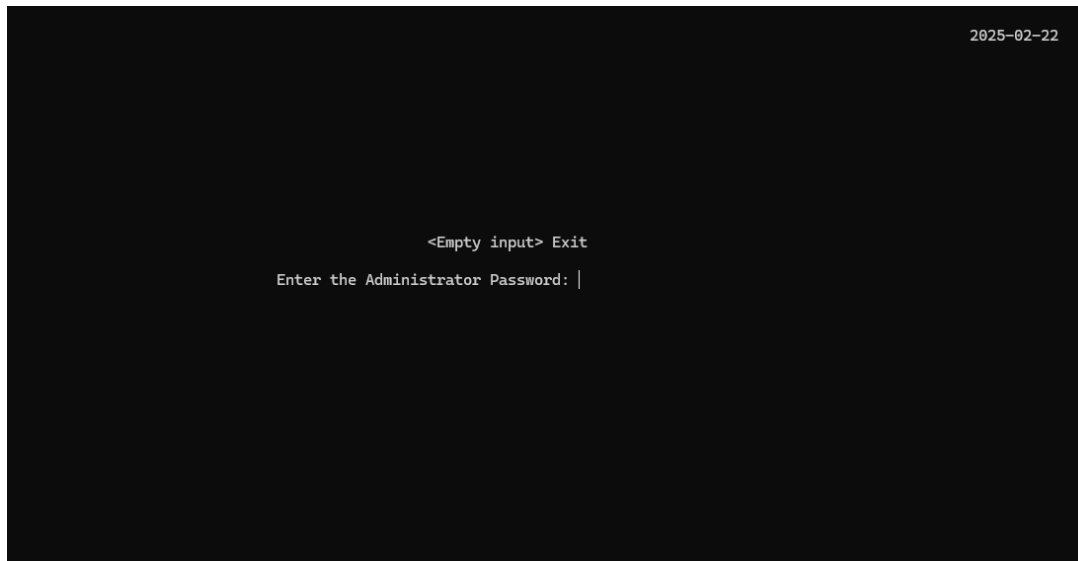
When there are no teachers' account:



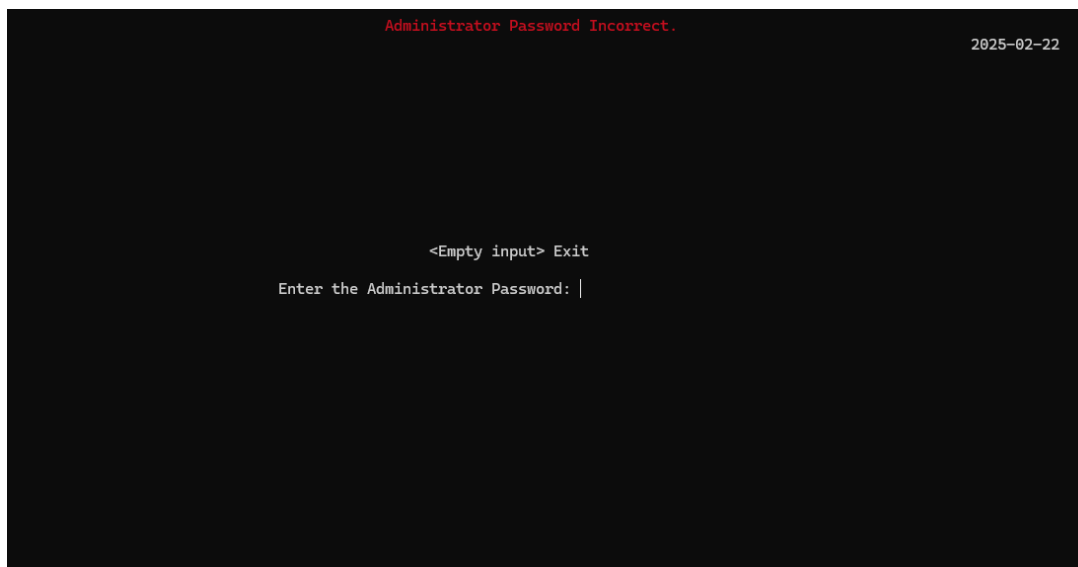
3. Reset Assessments Log (Administrator)

Press '5' in the administrator menu to enter the function. It also **required administrator password**.

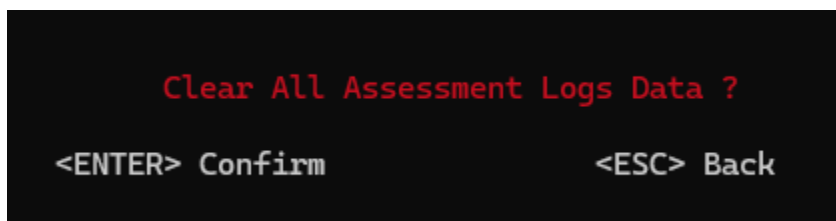




Incorrect Administrator Password Detected:

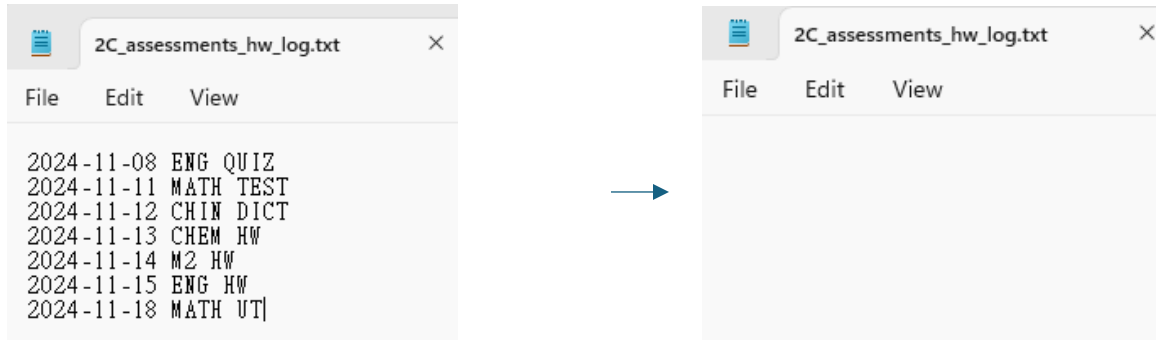


Pressing 'ENTER' key to confirm for clearing all assessment logs data. Pressing 'ESC' key to leave the function.



```
Assessment Log Clear Successful.  
Press <ANY KEY> To Return
```

(e.g. 2C assessments log)



4. Forget Password (Teacher) + Reset Password Request (Administrator)

Press '2' in main menu to enter “Forget Password” function.

```
<1> Login  
<2> Forget Password  
<ESC> Exit
```

In this function, user is required to **enter their username**. (e.g. CCM). Then request will send to the administrator account.

```
Forget your password?  
Please Enter your Username: CCM
```

```
Reset Password Request Sent  
Administrator Will Reset Your Password To Default ASAP  
Press <ANY KEY> To Return
```

Error Message:

```
Forget your password?  
Please Enter your Username: CCM|
```

```
Reset Request Pending  
Please Wait For Administrator to Reset  
Press <ANY KEY> To Return
```

```
Request Decline  
Default Password Detected  
Press <ANY KEY> To Return
```

In the administrator account, we can see that the **Reset Password Request** function colour changed from white to red when request exists. Press '3' to enter the function.

```
<1> Teachers Class Information  
<2> Settings (Administrator)  
<3> Reset Password Request  
<4> Specific Period Arrangement  
<5> Reset Assessments Log  
<6> Reset Specific Period  
<ESC> Sign Out
```

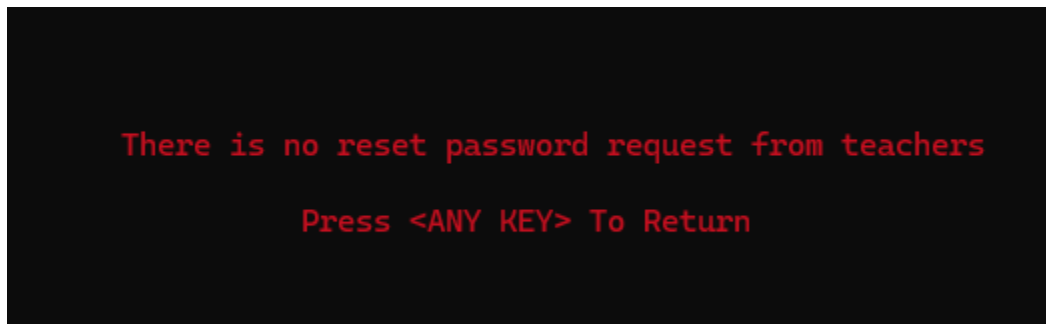


```
<1> Teachers Class Information  
<2> Settings (Administrator)  
<3> Reset Password Request *  
<4> Specific Period Arrangement  
<5> Reset Assessments Log  
<6> Reset Specific Period  
<ESC> Sign Out
```

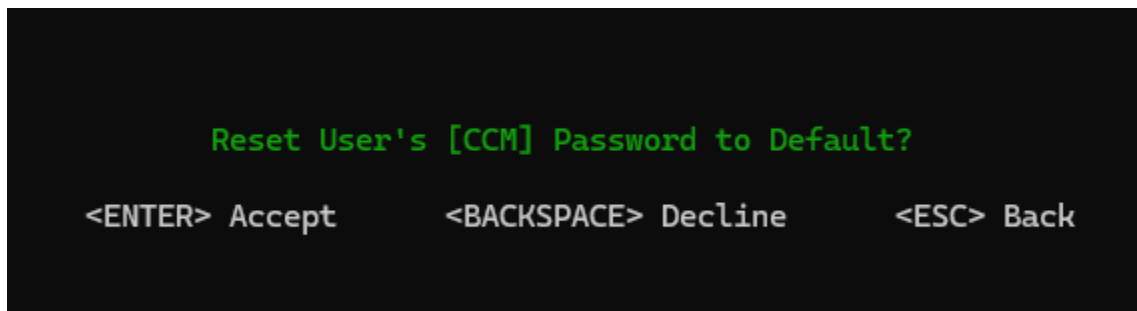
Administrator can see the **reset request from teachers**. Also, administrator can select the target (e.g. CCM) by pressing 'UP' or 'DOWN' key. Then, press 'ENTER' key to confirm. Pressing 'ESC' key to leave the function.



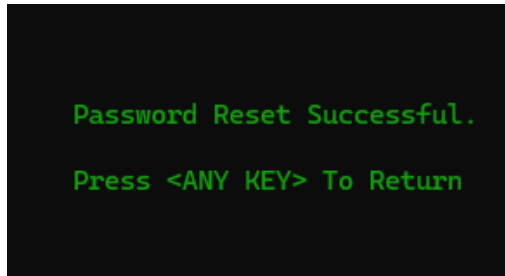
When there is no request:



A **confirm message** will be shown after pressing 'ENTER'. Administrator can press 'ENTER' key to **accept** or 'BACKSPACE' key to **decline the request**. Pressing 'ESC' return to the previous page.

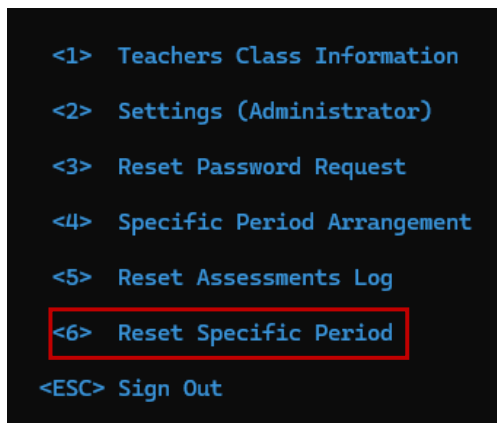


Teachers' password will be reset to the default password. Administrator should inform the teacher after this action.



5. Reset Specific Period

Press '6' in the administrator menu to enter the function.



Admin can **select the target month** you want to delete (e.g. February) by pressing 'UP', 'DOWN', 'LEFT' or 'RIGHT' key. Then press 'ENTER' to confirm the selection. Pressing 'ESC' to leave the function.



Press 'ENTER' again to confirm. Pressing 'ESC' return to previous selection page.

Clear [February] Specific Period Data ?

<ENTER> Confirm <ESC> Back

Press 'ENTER' to reset another month specific period. Press 'ESC' to leave the function.

Reset Others ?

<ENTER> Confirm <ESC> Back

Select and Confirm the Specific Period Arrangement

February 2025

Mon	Tue	Wed	Thu	Fri	Sat	Sun
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28		



Select and Confirm the Specific Period Arrangement

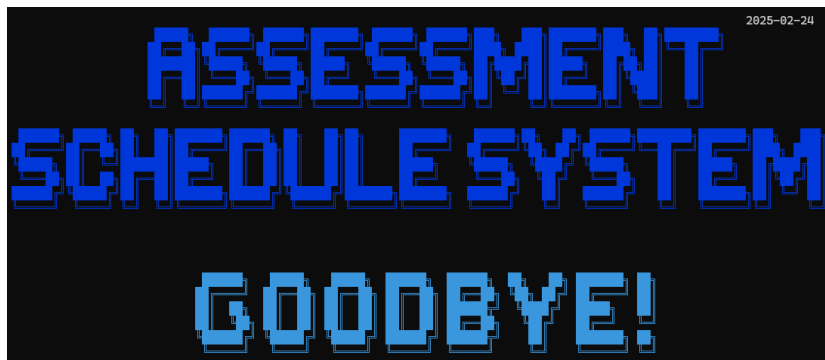
February 2025

Mon	Tue	Wed	Thu	Fri	Sat	Sun
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28		

6. Goodbye Message

The system will show goodbye message when the user exit the program.

```
<1> Login  
<2> Forget Password  
<ESC> Exit
```



Testing And Evaluation

Testing data

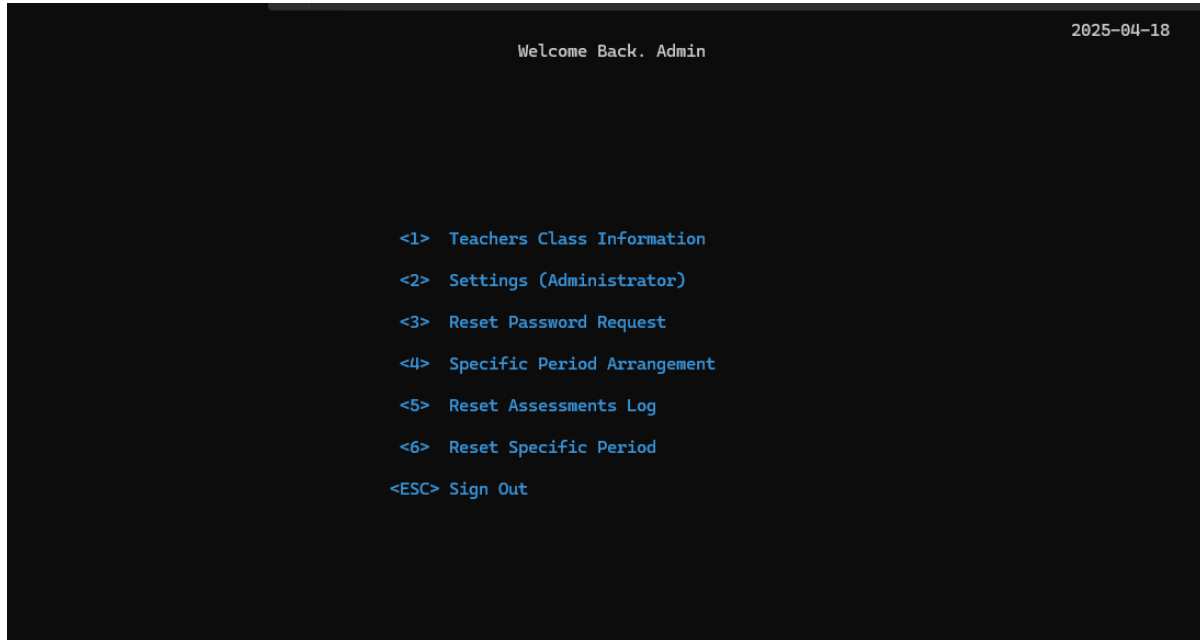
There are few kinds of data will be tested to check if there are errors existed in the program, which mainly consists of **valid data, invalid data, boundary cases and extreme data**.

Error

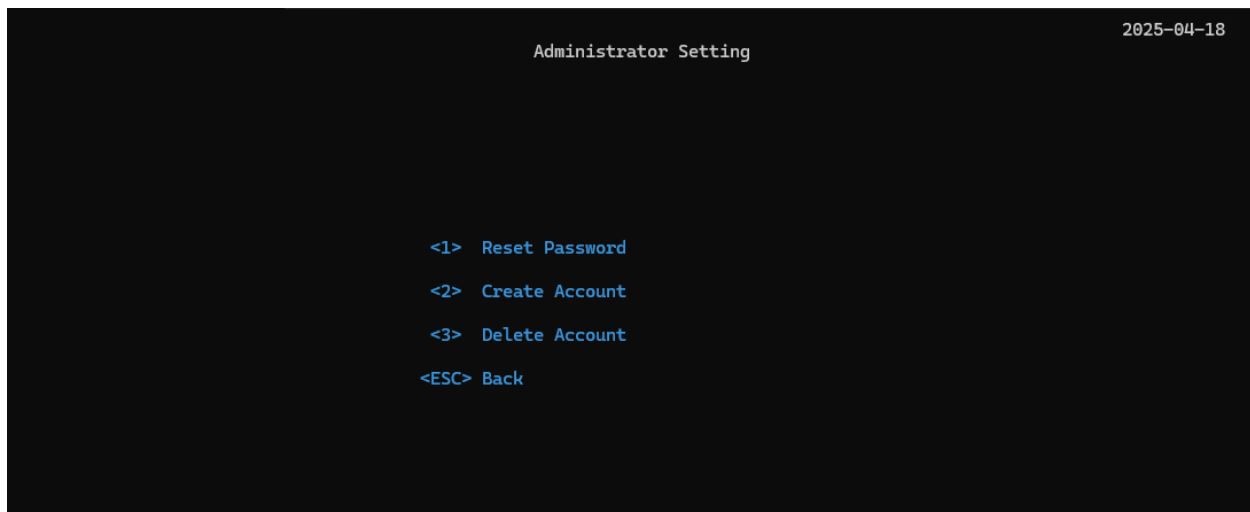
There are few kinds of errors that can be found in testing the program, which consists of **run-time error and logical error**.

“Readkey” Function

Readkey function is used in the program. All keyboard input will have no response except the options stated in the UI.



As this shown, the UI has “1”, “2”, “3” and “ESC” 4 options and only these options the program will response to the user, other invalid input will be regarded as invalid so no action will be taken.

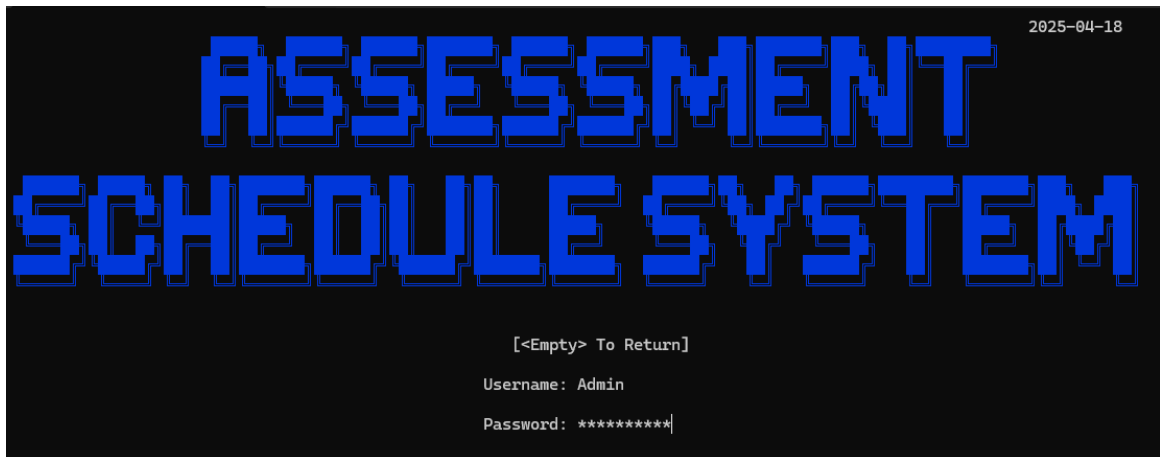


Data Input

The program mainly uses “Readkey” Function. However, there are some circumstances users must input the datum by themselves. Therefore, the corresponding testing will enter different kinds of testing data to test the program.

Remark: Press “Ctrl + C” during input will occur ‘KeyboardInterrupt’. (Python Default)

1. Login Page



Test Data	Description	Expected Result	Actual Result	✓/✗	Reason / Improvement
'Admin' & 'ASAdmin123'	Correct username and password	Successful Login	Successful Login	✓	-
'Teacher' & 'Teacher12345'	Correct username and password	Successful Login	Successful Login	✓	-
'Admin' & 'asadmin123'	Correct username but password in lower-case letter	Unsuccessful Login	Unsuccessful Login	✓	-
'Admin' & 'Teacher12345'	Correct username but other account password	Unsuccessful Login	Unsuccessful Login	✓	-
'Teacher' & 'ASAdmin123'	Correct username but admin account password	Unsuccessful Login	Unsuccessful Login	✓	-

'Admin' & 'abc123'	Correct username but incorrect password	Unsuccessful Login	Unsuccessful Login	✓	-
'Abc' & 'ASAdmin123'	Incorrect username but correct password	Unsuccessful Login	Unsuccessful Login	✓	-
'Abc' & 'abc123'	Incorrect username and password	Unsuccessful Login	Unsuccessful Login	✓	-
'中文' & '中文12345'	Extreme data	Unsuccessful Login	Unsuccessful Login	✓	Because the password column can only input English character and numbers

Conclusion:

Login page is most probably **error-free**.

2. Searching

```

Searching
2025-04-18

The search result for "8" is as follow. There are 2 result(s) found.
1. 2024-11-08 ENG QUIZ
2. 2024-11-18 MATH UT

<ENTER> Search Again  <ESC> Return

```

```

5D_assessments_hw_log.txt
File Edit View

2024-11-08 ENG QUIZ
2024-11-11 MATH TEST
2024-11-12 CHIN DICT
2024-11-13 CHEM HW
2024-11-14 M2 HW
2024-11-15 ENG HW
2024-11-18 MATH UT

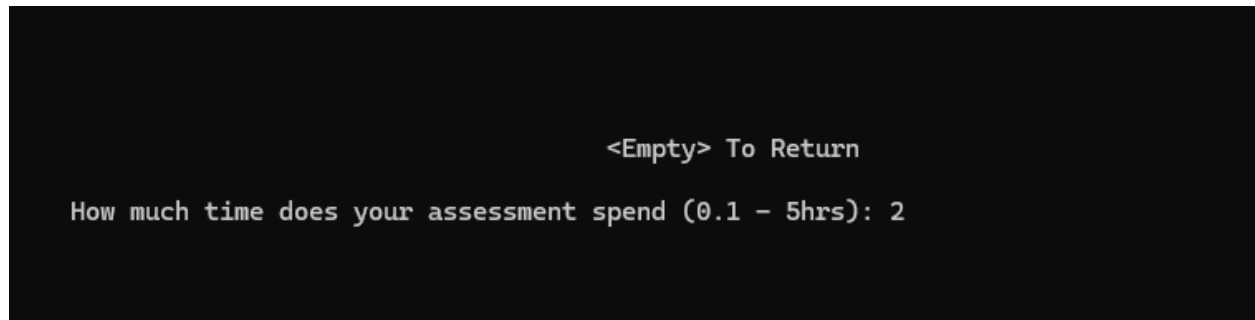
```

Test Data	Description	Expected Result	Actual Result	✓/✗	Reason / Improvement
'aaaabbbbcccc'	Extreme data	No results Found	No results Found	✓	-
'123'	Invalid data	No results Found	No results Found	✓	-
'!@#\$\$%'	Invalid data	No results Found	No results Found	✓	↓
' '	Invalid data	7 results Found	7 results Found	✓	↓
'_'	Invalid data	7 results Found	7 results Found	✓	Error message can be added when users input symbol
'eng'	Valid data	2 results Found	2 results Found	✓	-
'HW'	Valid data	3 results Found	3 results Found	✓	-
'Hw'	Valid data	3 results Found	3 results Found	✓	-

Conclusion:

Searching function can be improved in some cases.

3. Assessment Time



Test Data	Description	Expected Result	Actual Result	✓/✗	Reason / Improvement
'2'	Valid data	Successful Input	Successful Input	✓	-
'0.1'	Valid data Boundary Case	Successful Input	Successful Input	✓	-
'5.0'	Valid data Boundary Case	Successful Input	Successful Input	✓	-
'0'	Invalid data Boundary Case	Error Message	Error Message	✓	-
'5.1'	Invalid data Boundary Case	Error Message	Error Message	✓	-
'1000'	Extreme data	Error Message	Error Message	✓	-
'Hello'	Extreme data	Error Message	Error Message	✓	-

Conclusion:

Assessment Time Input is most probably **error-free**.

Improvement

1. Special Period Arrangement

When users are using the program on the first day of the month (e.g. 1st April), the previous month of the specific period arrangement needs to be reset by the administrator manually.

Select and Confirm the Specific Period Arrangement							2025-03-31
March 2025							
Mon	Tue	Wed	Thu	Fri	Sat	Sun	
3	4	5	6	7	1	2	
10	11	12	13	14	8	9	
17	18	19	20	21	15	16	
24	25	26	27	28	22	23	
31					29	30	

Select and Confirm the Specific Period Arrangement							2025-04-01
March 2026							
Mon	Tue	Wed	Thu	Fri	Sat	Sun	
2	3	4	5	6	7	1	
9	10	11	12	13	14	8	
16	17	18	19	20	21	15	
23	24	25	26	27	28	22	
30	31					29	

Improvement:

Clear the previous month special period arrangement **automatically**.

2. Teacher Account Name

Username can be inputted unlimited numbers.

```
Username: ABCDEFGHIJKLMN    Default Password: ABCDEFGHIJKLMN12345
SIGN UP SUCCESSFUL
Continue ?
<ENTER> Continue    <ESC> Return
```

Improvement:

Username should set a **maximum range**. (e.g. Should be smaller than or equal to 15)

3. Terminal Size

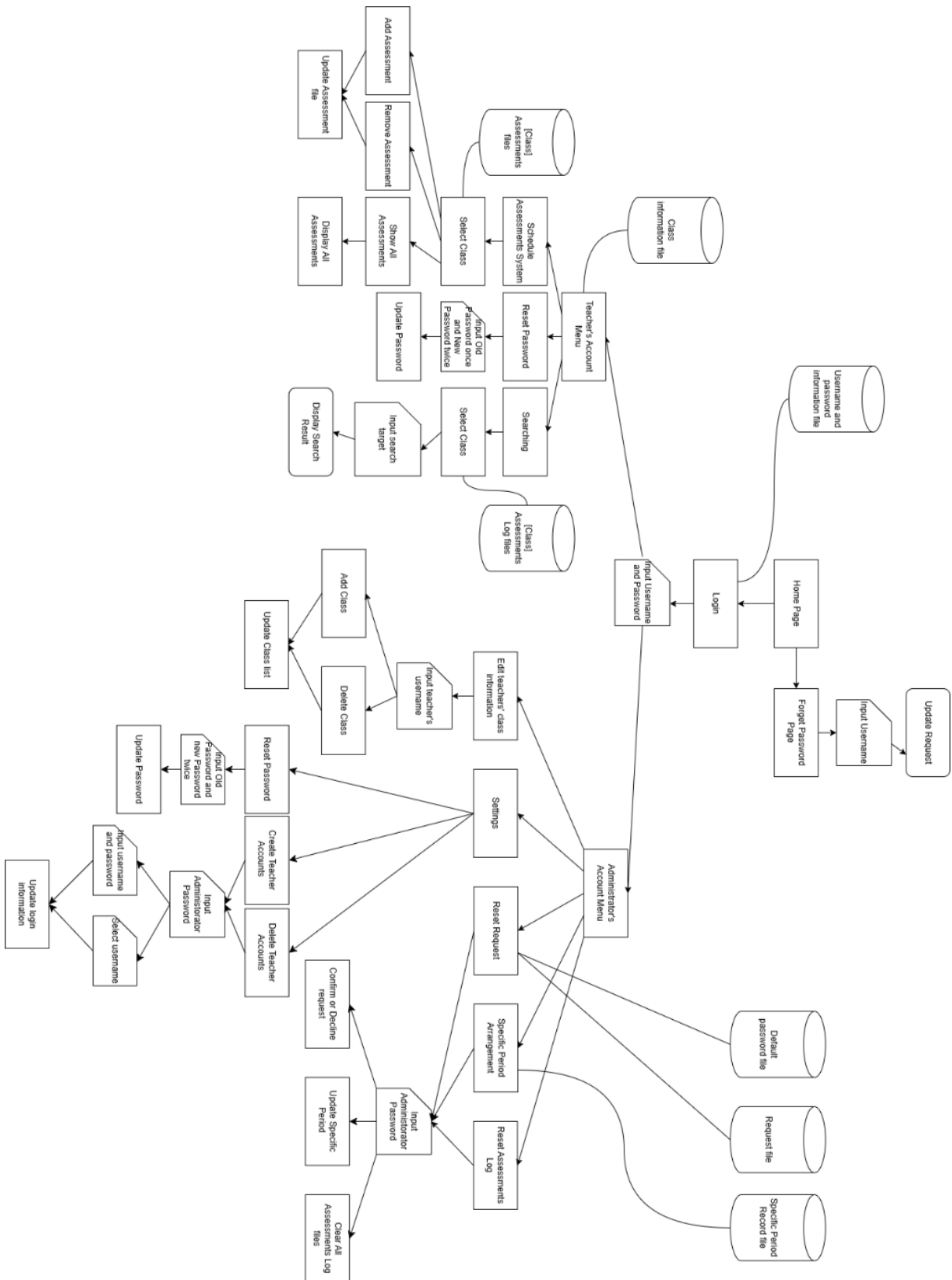
The terminal size cannot be resized because of the alignment.



Improvement:

Set the default terminal size become **Windows Fullscreen** to fix the position.

System Flowchart



Reference

Cover (image)

https://www.irasutoya.com/2016/03/blog-post_891.html

https://www.irasutoya.com/2020/01/blog-post_68.html

https://www.irasutoya.com/2016/01/blog-post_544.html

Flowchart Drawing

<https://www.draw.io/>

Scan Code (Readkey)

[https://learn.microsoft.com/en-us/previous-versions/visualstudio/visual-studio-6.0/aa299374\(v=vs.60\)?redirectedfrom=MSDN](https://learn.microsoft.com/en-us/previous-versions/visualstudio/visual-studio-6.0/aa299374(v=vs.60)?redirectedfrom=MSDN)