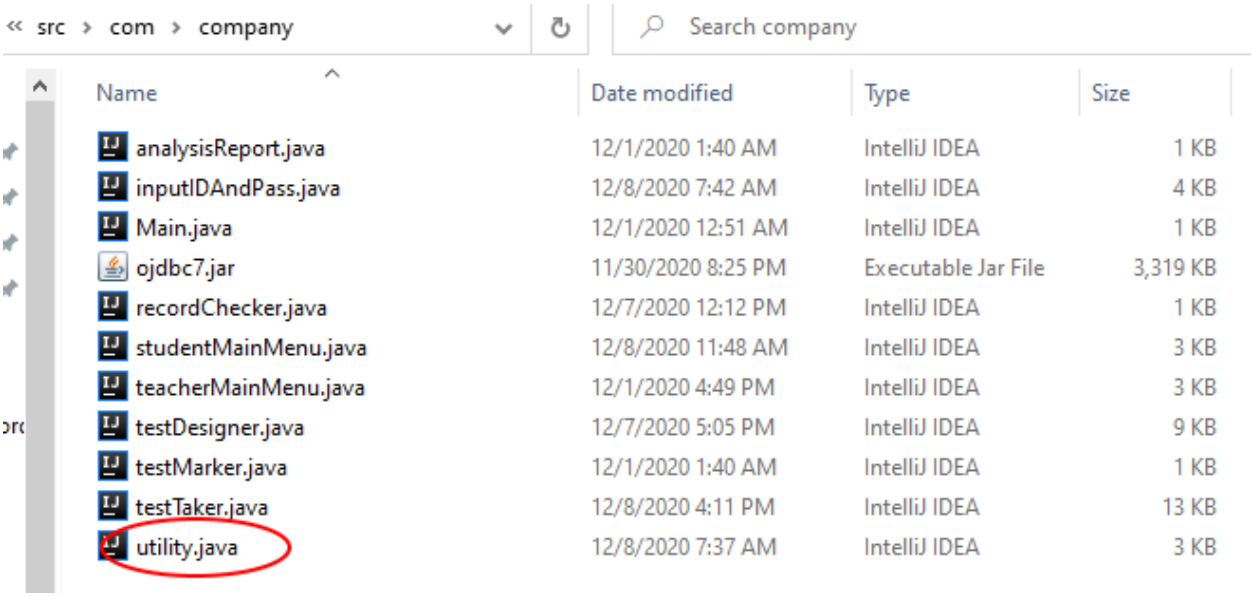
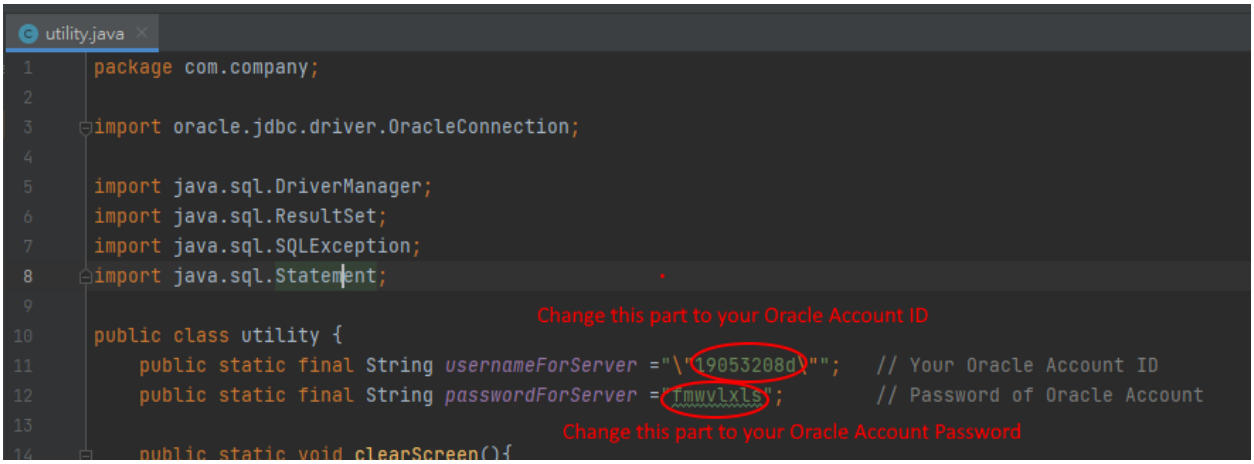
Unzipping the files

1. Unzip **everything** in the zip file into anywhere in your **local PC's storage**.

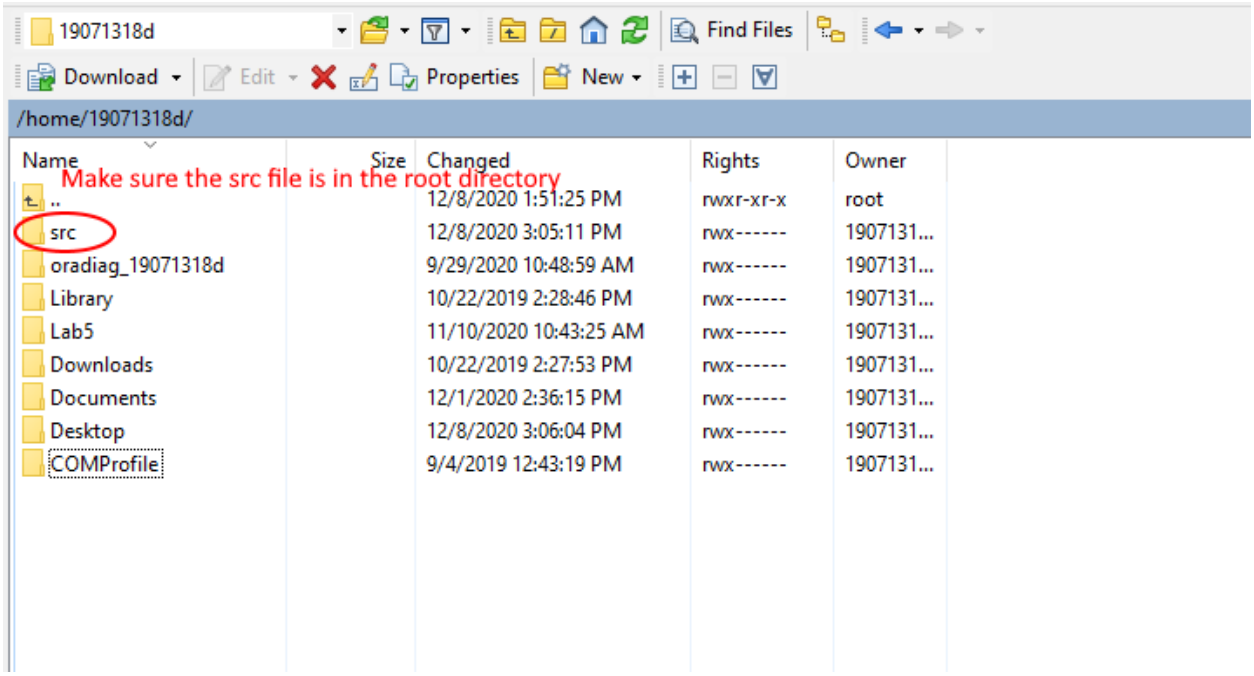
2. **IMPORTANT! Modifying Source Code to point to YOUR oracle database:** Go to folder src/com/company in your local file and open the file "utility.java" with a text editor/code editor.



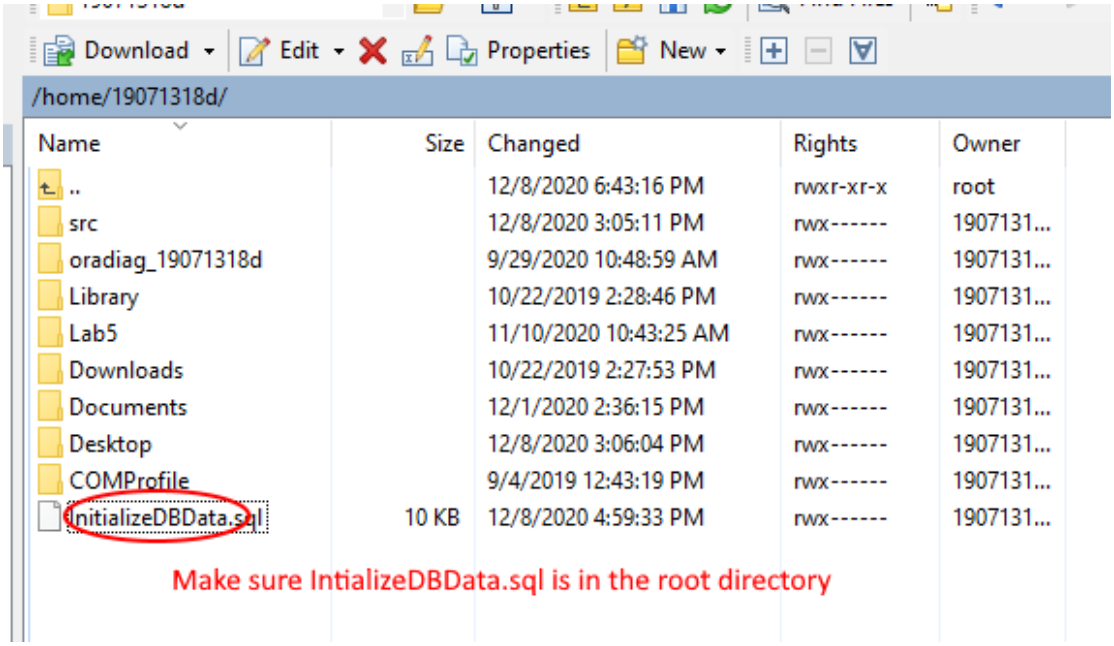
3. **IMPORTANT! Modifying Source Code to point to YOUR oracle database:** Find the two variables "usernameForServer" and "passwordForServer". Change the account ID and password to YOUR OWN oracle account user ID and password. *This is to allow the program to link to your own database. Make sure the credentials are correct.*



4. Save and close the file. Launch any FTP server (*e.g WinSCP*) and connect to your PolyU COMP intranet server (csdoor.comp.polyu.edu.hk). Transfer the **src** folder into the **root directory** of your server storage.

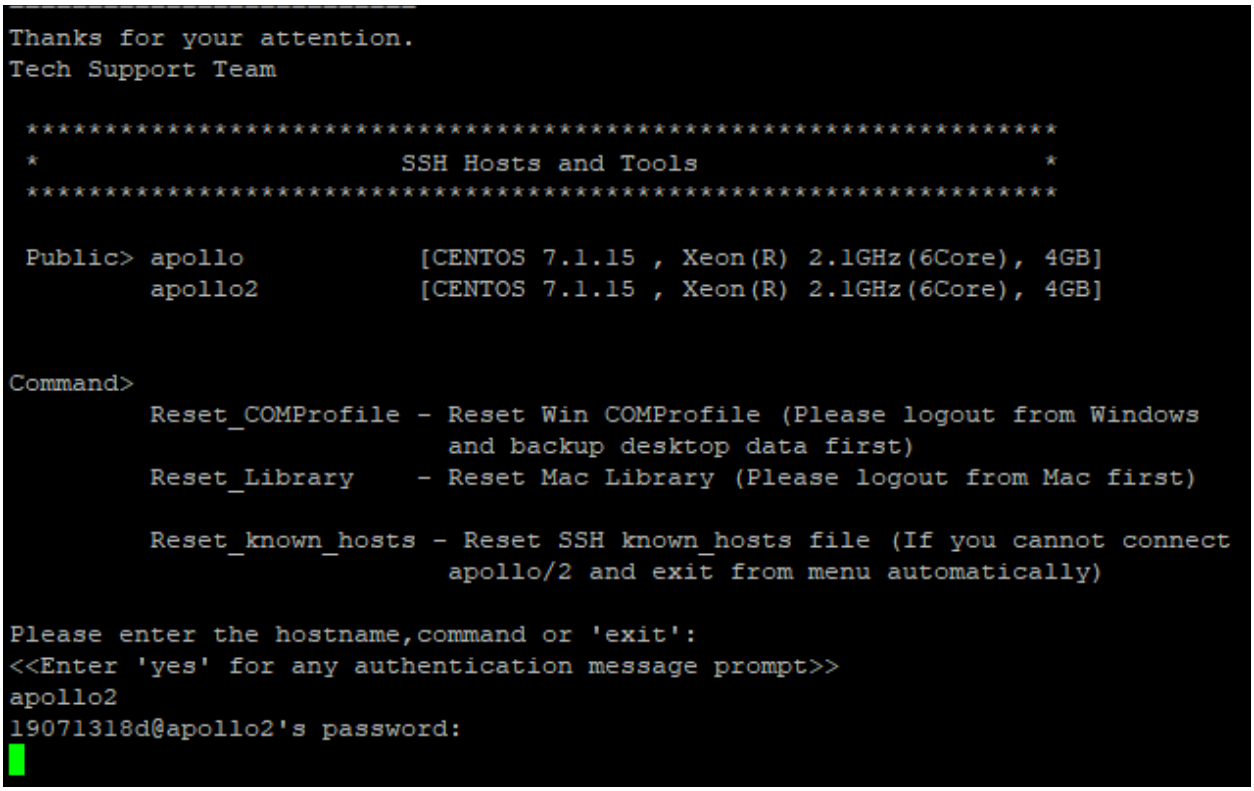


5. Transfer the InitializeDBData.sql file to the **root directory** of your server storage.

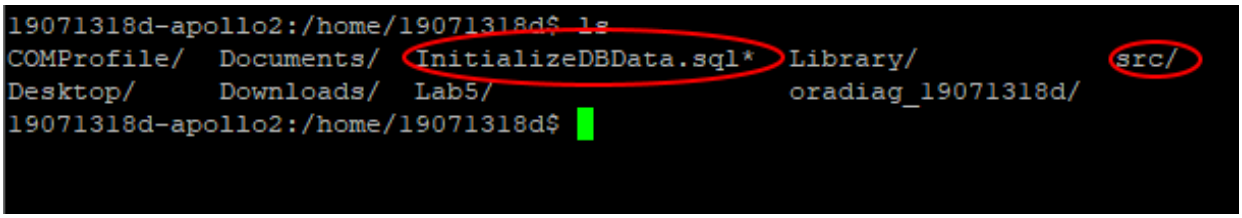


Initializing the Testing SQL File

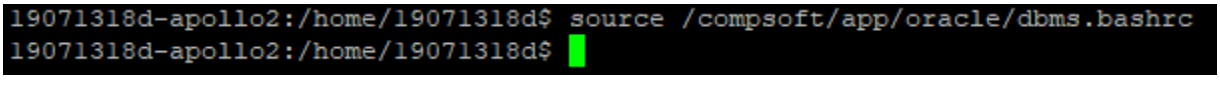
1. Launch PuTTY and login to the PolyU COMP's Apollo server (csdoor.comp.polyu.hk). *Note: It is recommended to use apollo2 as this portal has less traffic, which will decrease loading time of our program when connecting to oracle's database.*



2. Make sure you are at the root directory and have the src folder and the InitializeDBData SQL file. (Use command "ls" to list the files in your working directory).



3. Type the following command: *source /compsoft/app/oracle/dbms.bashrc* to initialize SQLPlus



4. Launch SQLPlus with command *sqlplus*, and then login to your oracle database (follow Lab 5's instructions for more details).

```
19071318d-apollo2:/home/19071318d$ sqlplus

SQL*Plus: Release 12.1.0.1.0 Production on Tue Dec 8 15:37:41 2020

Copyright (c) 1982, 2013, Oracle.  All rights reserved.

Enter user-name: "19071318d"@dbms
Enter password:
Last Successful login time: Tue Dec 08 2020 13:06:20 +08:00

Connected to:
Oracle Database 12c Enterprise Edition Release 12.2.0.1.0 - 64bit Production

SQL*PLUS:19071318d>
```

5. Type the following command: *@TestingData.sql* to initialize the testing data.

```
SQL*PLUS:19071318d>@InitializeDBData.sql

Table dropped.


Table dropped.


Table dropped.


Table dropped.


Table dropped.


Table dropped.


Table dropped.
```

6. Exit sqlplus by typing the command *exit*

```
Commit complete.

SQL*PLUS:19071318d>exit
Disconnected from Oracle Database 12c Enterprise Edition Release 12.2.0.1.0 - 64bit Production
```

Compiling and Executing the Program

1. Change the directory to the following by typing the following command *cd src/com/company/*

```
19071318d-apollo2:/home/19071318d$ cd src/com/company/
19071318d-apollo2:/home/19071318d/src/com/company$
```

2. Make sure your current directory has the source codes (use the command *ls* to list the files)

```
19071318d-apollo2:/home/19071318d/src/com/company$ ls
analysisReport.java*  ojdbc7.jar*           teacherMainMenu.java*  testTaker.java*
inputIDAndPass.java*  recordChecker.java*   testDesigner.java*     utility.java*
Main.java*            studentMainMenu.java* testMarker.java*
19071318d-apollo2:/home/19071318d/src/com/company$
```

3. Run the following command *javac -cp "ojdbc7.jar" *.java* to compile the source codes

```
19071318d-apollo2:/home/19071318d/src/com/company$ javac -cp "ojdbc7.jar" *.java
19071318d-apollo2:/home/19071318d/src/com/company$
```

4. Make sure the class files are generated (use the command *ls* to list the files)

```
19071318d-apollo2:/home/19071318d/src/com/company$ ls
analysisReport.class*  Main.java*            studentMainMenu.java*   testMarker.class*  utility.java*
analysisReport.java*   ojdbc7.jar*           teacherMainMenu.class*  testMarker.java*
inputIDAndPass.class*  recordChecker.class*  teacherMainMenu.java*   testTaker.class*
inputIDAndPass.java*   recordChecker.java*   testDesigner.class*     testTaker.java*
Main.class*            studentMainMenu.class* testDesigner.java*     utility.class*
19071318d-apollo2:/home/19071318d/src/com/company$
```

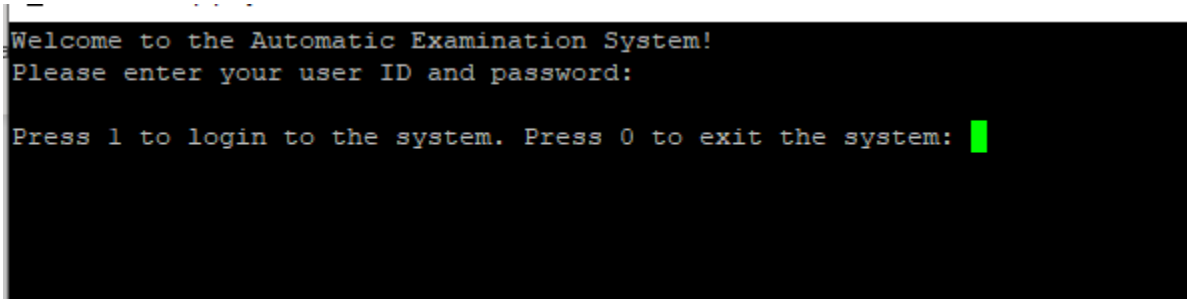
5. Change the directory up two levels by typing the command *cd* .. **twice.** (Your current directory should be pointed to “src/”).

```
19071318d-apollo2:/home/19071318d/src/com/company$ cd ..
19071318d-apollo2:/home/19071318d/src/com$ cd ..
19071318d-apollo2:/home/19071318d/src$
```

6. Execute the program by typing the command *java -cp ojdbc7.jar:. com.company.Main.*

```
19071318d-apollo2:/home/19071318d/src$ java -cp ojdbc7.jar:. com.company.Main
```

7. If you see this screen upon executing the command, it implies you have successfully launched the program. Enter 1 and press enter to continue to the login screen.



Demonstration of Functions in Logical Order

testDesigner (for teachers accounts only)

(Also show how to login)

1. First this screen will show up:

```
Welcome to the Automatic Examination System!
Please enter your user ID and password:

Press 1 to login to the system. Press 0 to exit the system:
```

2. Then press 1, after the login screen will show up and ask for username and password, in here we use username(t000000001), password (abcdt1) for testing:

```
Username: t000000001
Password: abcdt1
```

3. In here we will select (1) the function of *Design a new test*

```
Welcome teacher! (Current User ID: t000000001)

Please enter the following number to access their respective functions and press enter:
1. Design a new test
2. Mark a test
3. Generate an analysis report
0. Exit the main menu and logout

Your option: 1
```

4. The system then will ask for the subject ID that you want to create of the Exam.

```
Here is the EXAM_ID: 4
Which subject is this exam for? (Please enter a Subject ID)

Below are the subject(s) that you are teaching:
Subject Name         Subject ID
================================
Chinese              001
English              002
BAFS                 003
================================
001
```

5. Then the system will show up the class that the user is teaching, and then you can type in the corresponding class id.

```
Here is the EXAM_ID: 4
Which subject is this exam for? (Please enter a Subject ID)

Below are the subject(s) that you are teaching:
Subject Name         Subject ID
================================
Chinese              001
English              002
BAFS                 003
================================
001

Which class is this exam for? (Please enter a Class ID)

Below are the class(es) that you are teaching:
Class Name           Class ID
================================
6D                   c00000000000003
================================
c00000000000003
```

6. After that the system will ask for the exam number.

```
Please enter the exam number:
1
```

7. Then is the date.

```
What is the date of the exam? (DD-MM-YYYY)
8-12-2020
```

8. Time.

```
What is the time of the exam? (HH:MM 24-Hr format)
15:00
```

9. Duration.

```
What is the duration of the exam? (mins)
60
```

10. Last the system will ask if you confirm to add the exam.

```
Confirm to add this Exam? (y/n)
y
```

Moving on to adding question for the exam:

1. The system will fist show the current question that you are in, then ask of the question that you creating is compulsory or not, you can enter 0 for not compulsory and 1 for compulsory.

```
Question 1:
Is the question compulsory? (0 for not compulsory, 1 for compulsory)
1
```

2. Then, is the full mark for the question:

```
What is the full mark for this question?
5
```

3. The question type:

```
What is the question type?
(Please input 0:multiple-choice  1:fill in the blank  2:standard full-length test questions)
1
```

4. The question content:

```
Please enter the question
This is the question for fill in the blank _____. (Enter "answer" for the blank)
```

5. The answer for the question:

```
Please enter the answer for the question
answer
```

6. Then the system will ask if you are sure to add the question:

```
Confirm to add this question? (y/n)
y
```

7. After confirming to add the question, the system will ask of you want to add further questions to the exam if yes, the procedures will be the same as above (from step 1), if not the system will go back to the page of main menu for user to select the function that you willing to use.

```
Any more question? (y/n)
y
```

testTaker (for students accounts only)

1. After you created the test and return to main menu, press 0 to logout.

```
Welcome teacher! (Current User ID: t000000001)

Please enter the following number to access their respective functions and press enter:
1. Design a new test
2. Mark a test
3. Generate an analysis report
0. Exit the main menu and logout

Your option: 0
```

2. Press 1 to login today. This time for demonstration purposes, we will login to student ID s000000007 for demonstration purposes, because that student is under the class of the teacher we just designed the test.

```
Username: s000000007
Password: abcd7
```

.

3. Press 1 to enter the test taker function

```
Welcome student! (Current User ID: s000000007)

Please enter the following number to access their respective functions and press enter:
1. Participate in a test
2. Check your previous records
0. Exit the main menu and logout

Your option: 1
```

4. Here you will see the list of tests that can be partaked. In this case, you will see a test that was just designed previously. Enter 1 to enter that test.

```
Please enter an option ID to partake in a test. Enter 0 to return to main menu.
Option:   Exam ID: Subject ID: Subject Name:   Test No:          Date:      Time:  Duration:
    1.          3         001       Chinese          1     2020-12-08      15:00         60



Your input: 1
```

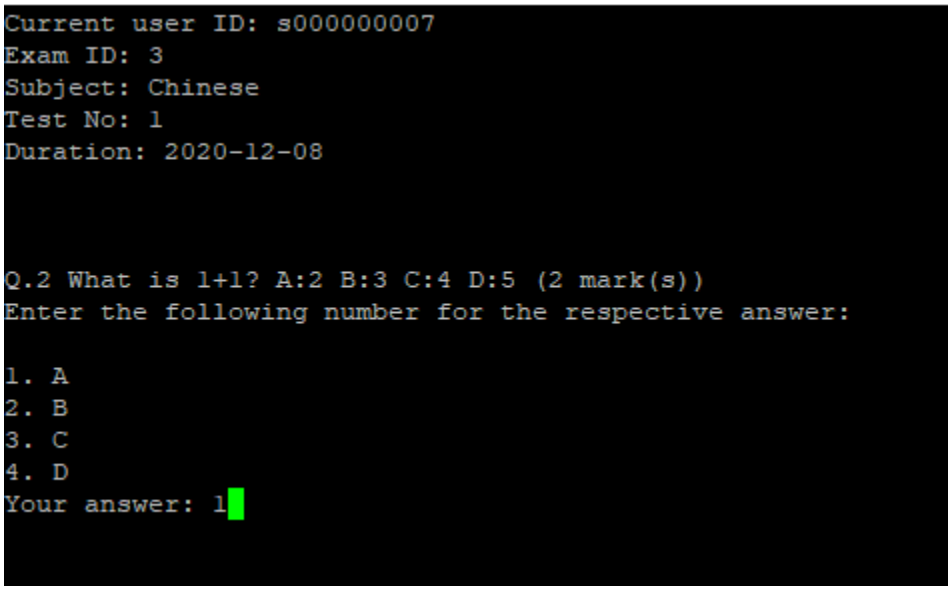
5. The system will ask for verification for exam info. Press 1 to confirm and start the exam.

```
Current user ID: s000000007
Exam ID: 3
Subject: Chinese
Test No: 1
Duration: 2020-12-08

Enter 1 to start the exam. Enter 0 to return to main menu.
1
```

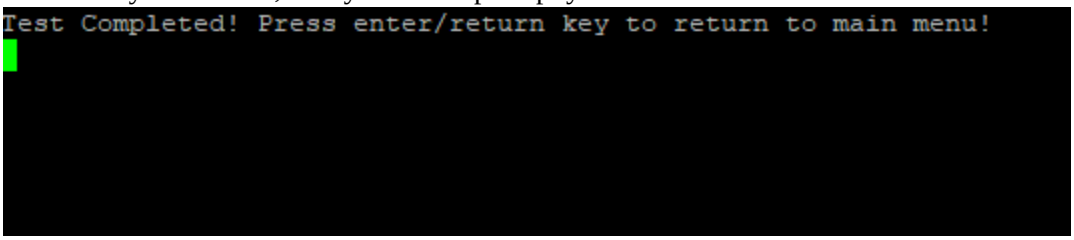
6. The system will show the questions in order. Here you see the long question created previously. Long questions and fill-in-the-blanks allow any combination of values that are not blank and is not “0” (0 is reserved for the isCompulsory cases).

```
Current user ID: s000000007
Exam ID: 3
Subject: Chinese
Test No: 1
Duration: 2020-12-08



Q.1 This is the question for fill in the blank _____. (Enter "answer" for the blank) (5 mark(s))
Your answer: answer
```

7. For multiple choice questions, you can only input 1,2,3,4 (or 0 if the question can be skipped).



8. When you finished, the system will prompt you. Press enter to return to main menu.



testMarker (for teachers account only)

1. After the teacher login his or her account and type 2, teacher would go to test marker for marking exams.

```
Welcome teacher! (Current User ID: t000000001)

Please enter the following number to access their respective functions and press enter:
1. Design a new test
2. Mark a test
3. Generate an analysis report
0. Exit the main menu and logout

Your option: 2
```

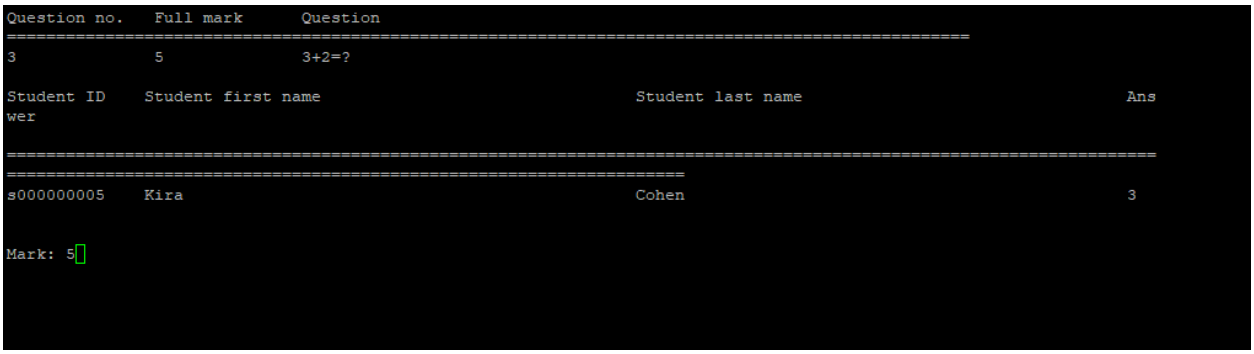
2. System would automatically list out all the exam. Teacher could input the exam ID to select an exam for marking

```
Now running test marker.
Here is all of your exam:
EXAM_ID         SUBJECT_NAME         CLASS_NAME   TEST_NO
=========================================================
1               Chinese              6A           001
2               Chinese              6B           002
Please input Exam ID for marking:
1
```

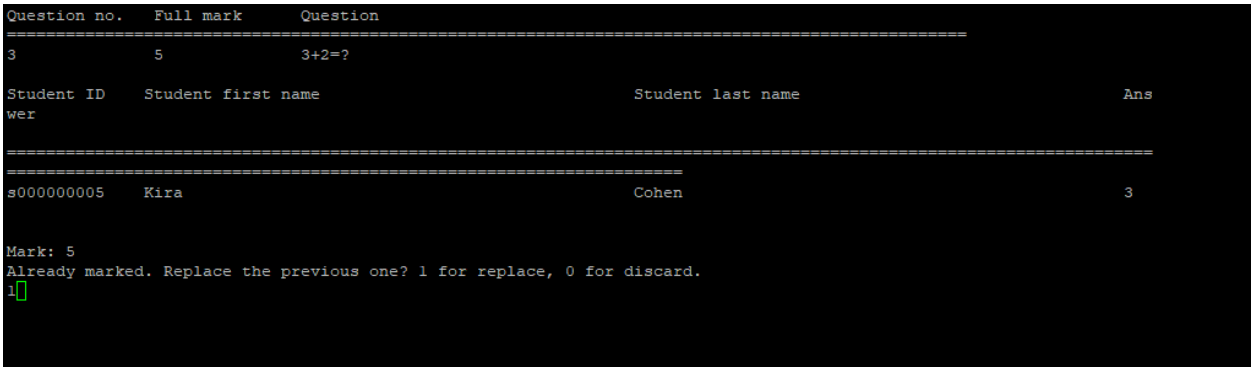
3. There would be a review on the selected exam and there would be three attributes: Exam ID, Number of Text Question, and number of students. Type 1 to proceed.

```
Review
================================================
Exam ID:                        1
Number of Text Question:        1
Number of student:              9

Confirm to proceed? 1 for proceed, 0 for exit
1
```

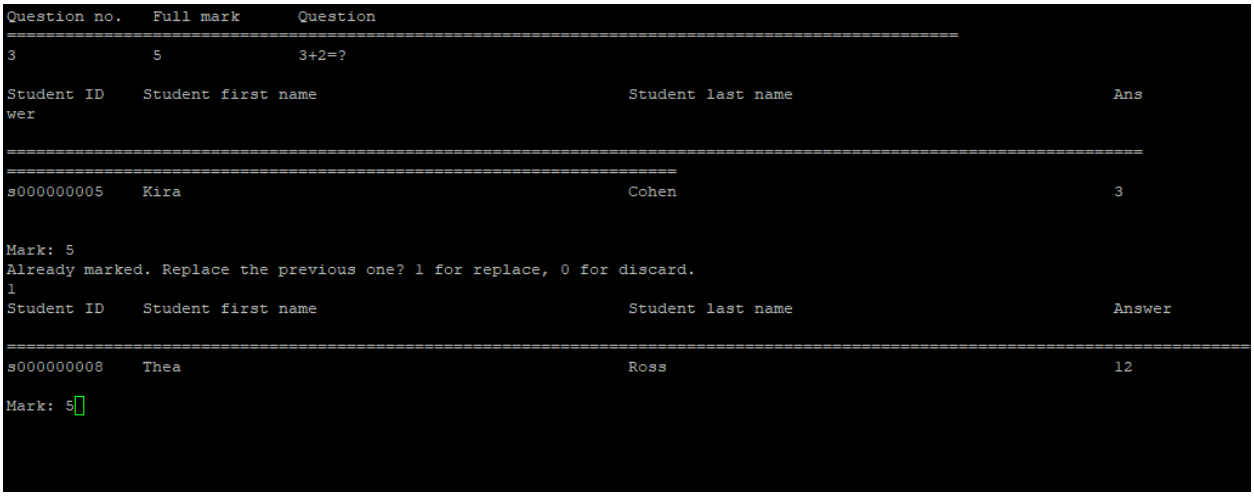
4. Teacher would mark all the student's answer in each question. When all the answers of one question has been marked. System would go to next question.
   There would be two parts. The first part is a preview of that question.
   Review the question answered by students and enter a mark for them.



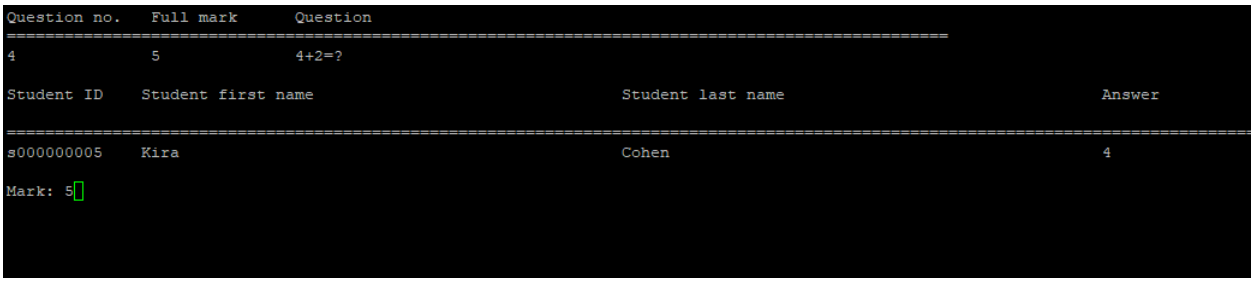
5. If teacher had already marked that question before. System would ask whether you want to use the current mark to replace the one or discard the current mark.



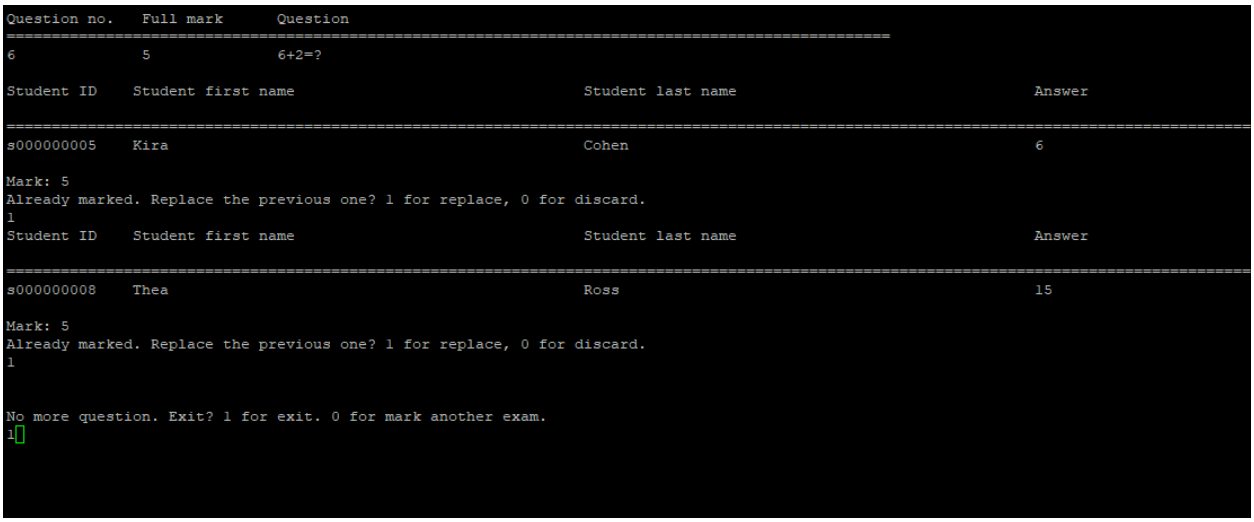
5. Press enter and jump to mark next student.



6. When all the answer in one question are all marked. System would jump to next question.



7. At the end. System would tell you no more question in this exam. Type 1 for exit and 0 for marking another exam.



-

recordChecker (for students account only)

1. After student login the following screen will show up:

```
Welcome student! (Current User ID: s000000001)

Please enter the following number to access their respective functions and press enter:
1. Participate in a test
2. Check your previous records
0. Exit the main menu and logout

Your option: 2
```

2. Then select the function to *check your previous records*, and the corresponding records will show up.

```
Subject Name    Test No.     Grade
========================================
English         1            B-
Chinese         1            C
BAFS            1            C
========================================
Average Grade: C+
========================================

Press Enter to continue...
```

analysisReport (for teachers account only)

1. Choose 3 to go to analysis Report.

```
Welcome teacher! (Current User ID: t000000001)

Please enter the following number to access their respective functions and press enter:
1. Design a new test
2. Mark a test
3. Generate an analysis report
0. Exit the main menu and logout

Your option: 3
```

2. There are six functions in analysis Report.
   1 for listing out all the students that the teacher teaches.
   2 for listing out all the subject that the teacher teaches.
   3 for listing out all the class that the teacher teaches.
   4 for listing out exam result of one specific student.
   5 for listing out exam result of one specific subject.
   6 for listing out exam result of one specific class.

```
Please enter the following number to access your respective functions and press enter:
1. List out all the student
2. List out all the subject
3. List out all the class
4. Generate a student result
5. Generate a subject result
6. Generate a class result
```

3. Function 1: listing out all the students that the teacher teaches.

```
Student ID      First name      Last name       Class
=====================================================
s000000007      Taylor          Cox             6D
s000000012      Chelsea         Preston         6D
s000000017      Edwin           Allen           6D
Exit to main menu? 1 for exit. 0 for go back to choose respective functions.
0
```

4. Function 2: listing out all the subject that the teacher teaches.

```
SUBJECT_ID          Subject name
=====================================
001                 Chinese
002                 English
003                 BAFS
Exit to main menu? 1 for exit. 0 for go back to choose respective functions.
```

5. Function 3: Listing out all the class that the teacher teaches.

```
Class ID       Class
============================
c000000000000036D
Exit to main menu? 1 for exit. 0 for go back to choose respective functions.
```

6. Function 4: Listing out exam result of one specific student.

   Teacher would need to input a student ID which teacher is looking for.

```
Please input student ID:
s000000005
```

   System would print out the result.

```
Please input student ID:
s000000005
Exam ID        Subject Name   Score     Grade
================================================
1              Chinese        50        D+
Exit to main menu? 1 for exit. 0 for go back to choose respective functions.
```

7. Function 5: Listing out exam result of one specific subject

   Teacher would need to input a subject ID which teacher is looking for.

```
Please input subject ID:
001
```

System would print out the result.

```
Please input subject ID:
001
Subject ID     Subject name   Average mark
============================================
001            Chinese        40
Exit to main menu? 1 for exit. 0 for go back to choose respective functions.
```

8. Function 6: Listing out exam result of one specific class.

Teacher would need to input a class ID which teacher is looking for.

```
Please input class ID:
c00000000000000
```

System would print out the result.

```
Please input class ID:
c00000000000000
Class ID           Class name    Average mark
================================================
c00000000000000    6A            40
Exit to main menu? 1 for exit. 0 for go back to choose respective functions.
```