Online Exam Management System

User Manual

# **Table of Contents**

[**Table of Contents 1**](#_30j0zll)

[**Running the Program after Setup 1**](#_bpyvizyg7pwr)

[**A.I. Exam Generation 7**](#_mutyv8ccjhv)

[Manual Exam Generation 8](#_h9s82ga7fj9)

[Importing a Class via Excel 9](#_chgxvbbj7o0l)

[Logging in as a Schedule Manager 10](#_lc4qriv4f41n)

[Logging in as a Student 11](#_u3oditp5if7v)

[Logging in as an instructor 13](#_dww8suasryq)

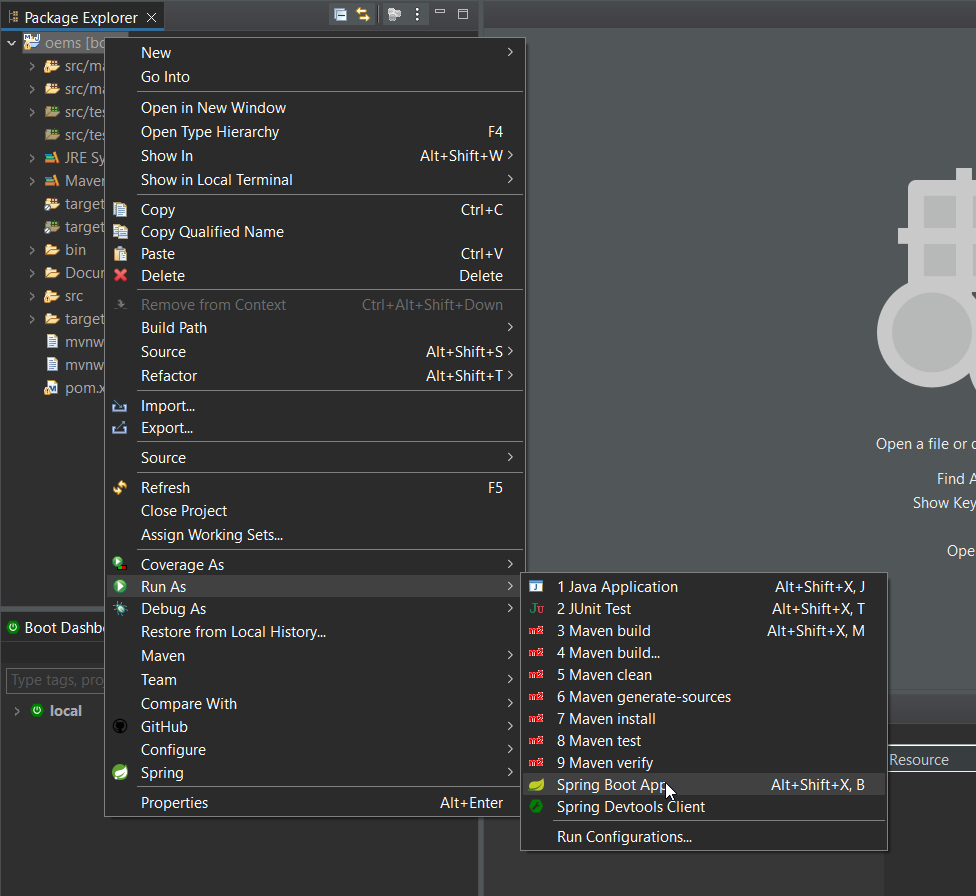
[Loading a Class Roster 14](#_539jiirwzabc)

[Editing a Student 17](#_2bk7n7rgthsj)

## **Running the Program after Setup**

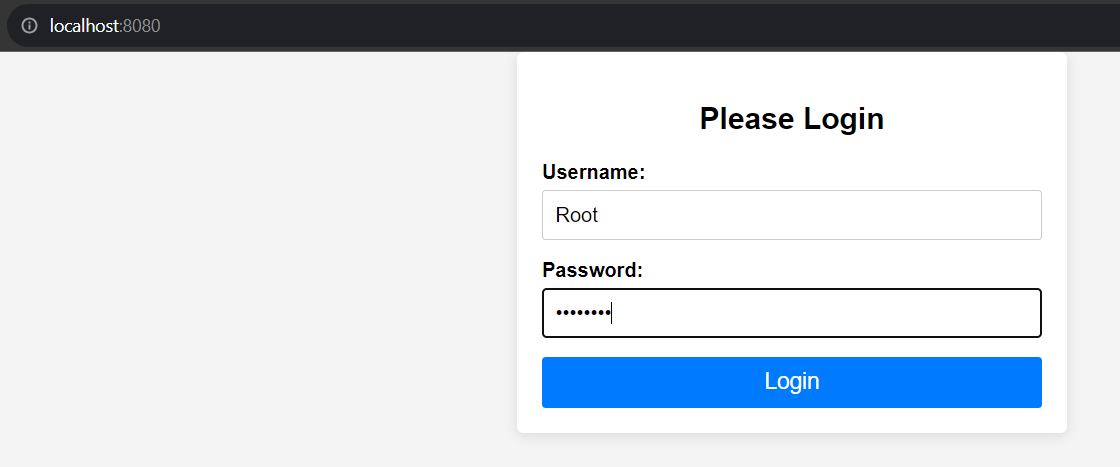
After getting all the program files open in Eclipse you’ll want to run the program.

1. You’ll need to right click on the top of the files tree, hover over **Run As**, then click Spring Boot Apps

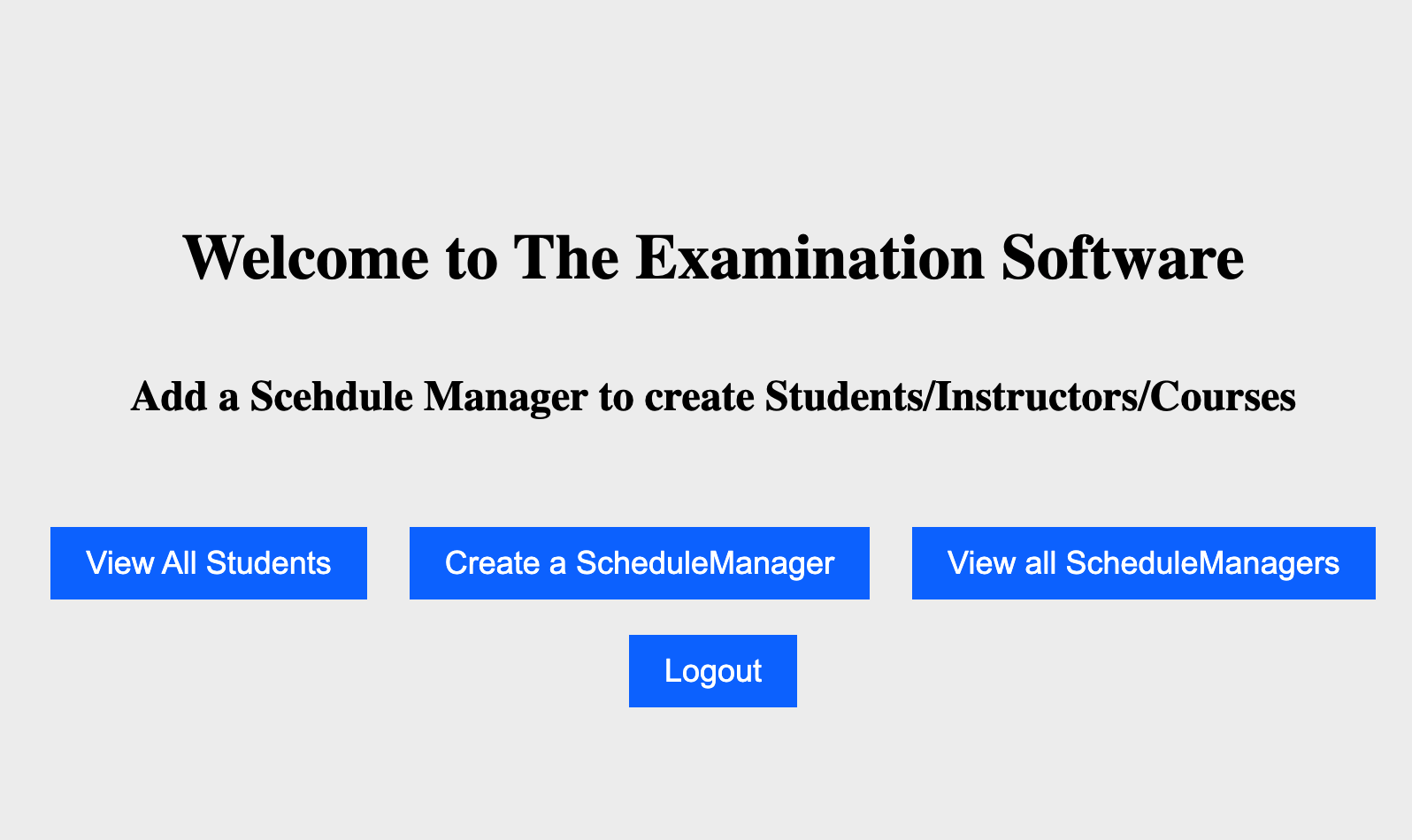


1. You will then need to navigate to your browser of choice and type *localhost:8080* into the url bar. The login page will be displayed.

*user: root, pass: software*

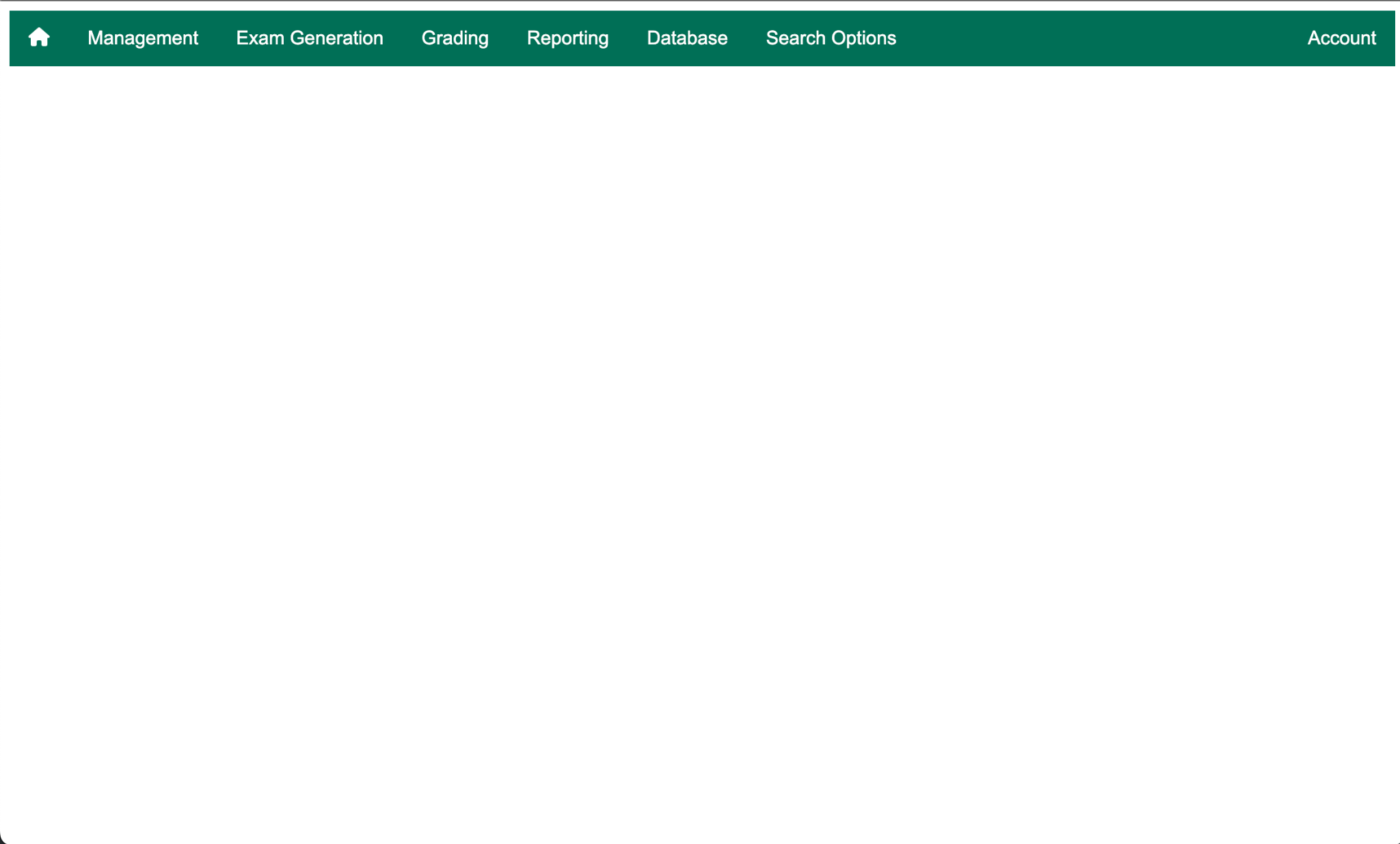


1. After Logging in you will be presented with the Main Screen for an Administrator.

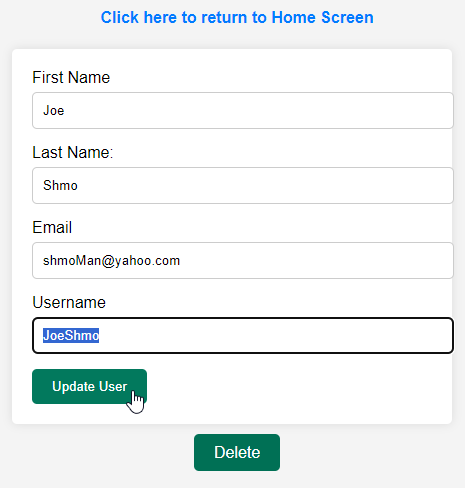


* This is the view of an administrator, the sole role of the administrator is interaction of the database, creating students, instructors and other administrators. They should not have the privilege of interacting with classes or associations.

This image is a combined view of all users, and we will go further in depth per homepage later in the manual, but the functionality for the buttons is below.



1. You have a navigation bar that has multiple options, the current options that are available are Management, Computer Literacy, Grading, Reporting, Database, Search, Options. The root user will have the most privileges out of all users, they are able to do any task at any privilege.
   1. Management has 5 options under it
      1. Schedule Manager - This is the control panel for a schedule manager, if a schedule manager is busy then an administrator is able to assign relationships between students/teachers and courses.
      2. Load a Class - This gives the option to the administrator to upload a class and its parameters to the database, and associates the student/teacher with a class.
         1. Choosing file - If you have a file you would like to upload this is where you would upload the file to
         2. Upload - is where you would upload the selected file
      3. Create Schedule Manager - This is the main idea of the Root user, the idea for the root user is to create schedule managers, so the administrator doesn’t have to deal with the associations between the classes and the students/teachers.
      4. Chapters - This lets the user choose between chapters and different examination forms. This is ***under Development***
      5. Exams - Allows the user to pick a class and get redirected to an exam
   2. Exam Generation
      1. Exam Generator - A full-fledged AI-Exam generator. Simply pick a topic and it will generate an exam for you. See ‘A.I. Exam Generation’ for in-depth user manual information.
   3. Grading
      1. Exam Grading - ***Currently Not Functioning***
   4. Reporting
      1. Exam information - ***Currently Not Functioning***
      2. IP Address - ***Currently Not Functioning***
   5. Database
      1. View All Students - Routes to an HTML page that shows all students in the database.
         1. There is an edit feature when viewing all students as well, you can click edit to the right hand side of any student currently enrolled and it will route you to a new page to edit the students details, or delete the student all together.



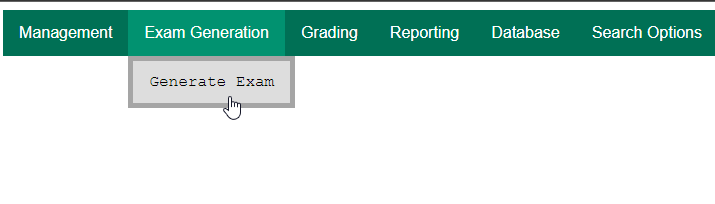
* + 1. View all Schedule Managers - ***This page is under development***
    2. Add Students - Routes to an HTML page that allows the admin to add students to the database.
    3. Add Instructors - Routes to an HTML page that allows the admin to add instructors to the database.
    4. Add Courses- Routes to an HTML page that allows the admin to add courses to the database.
    5. Assign Students - Allows the admin to assign existing students to existing classes
       1. The association will be recorded and uploaded to the student\_and\_courses table
    6. Assign Instructors- Allows the admin to assign existing instructors to existing classes
       1. The association will be recorded and uploaded to the instructor\_courses table
    7. Export to Excel - Exports the students from the database to your local drive as an excel file. By default, it should be downloaded to your ‘Downloads’ folder
    8. Import with Excel - Allows an import of an Excel File that uploads students into the database. Checks if usernames are unique.
  1. Search Options
     1. View Details - ***Currently Not Functioning***
  2. Account
     1. Change Password - ***Currently Not Functioning***
     2. Logout - This option will take you back to the login page.

## 

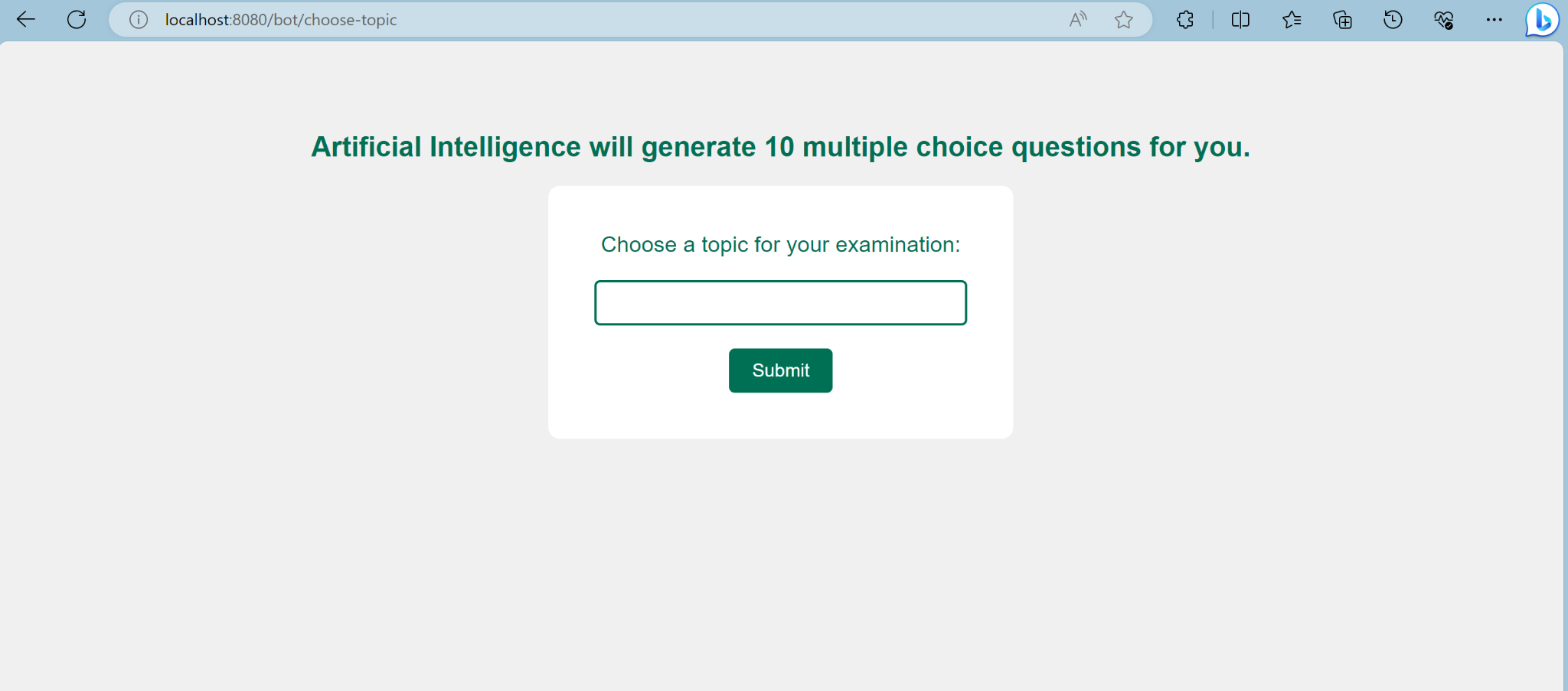
## 

## **A.I. Exam Generation**

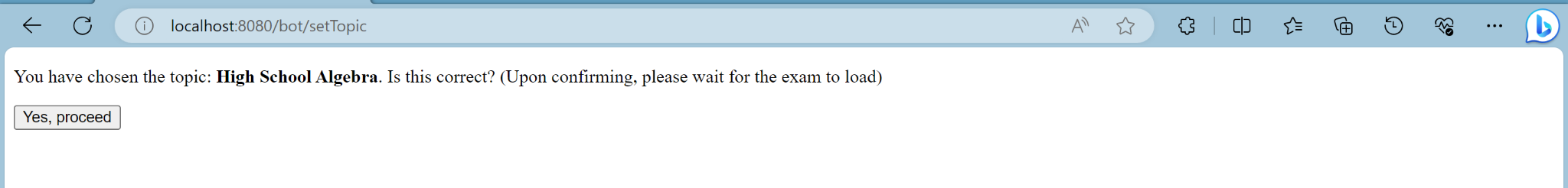
1. At the navbar page, hover over **Exam Generation** and click on Generate Exam

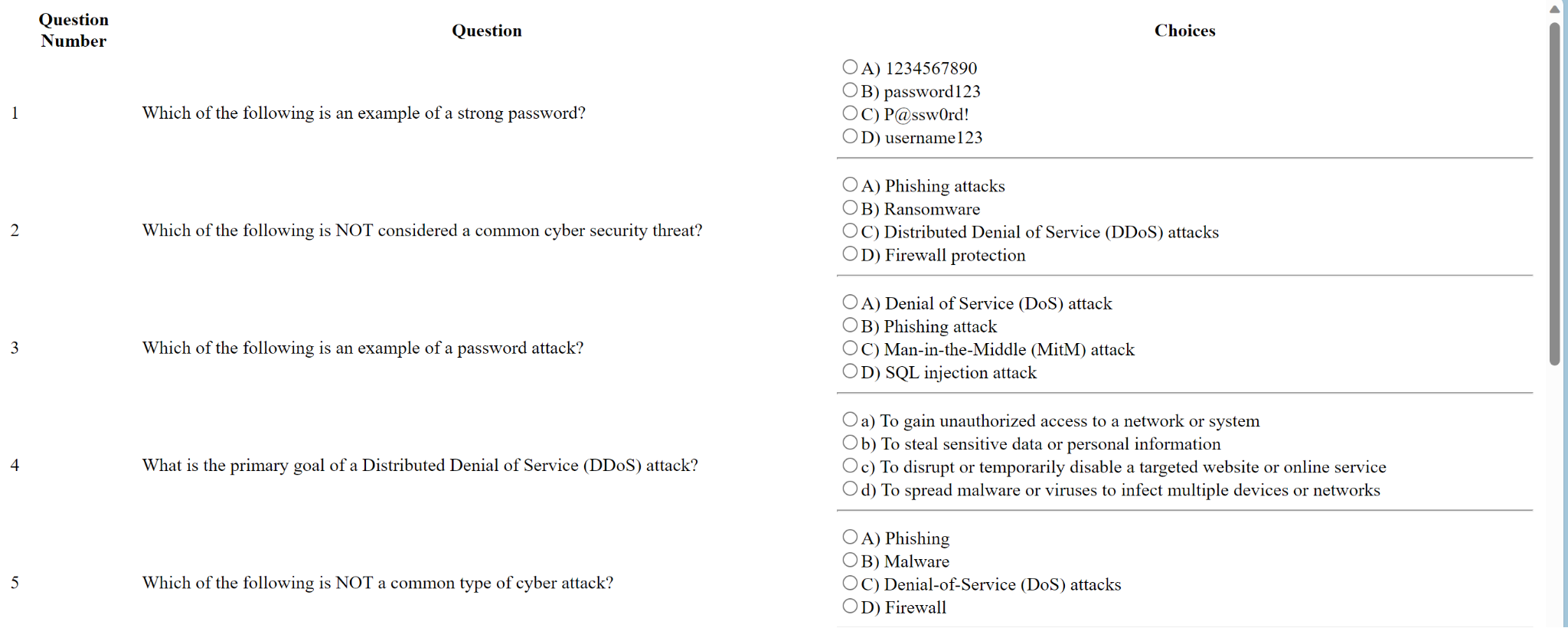


1. You will be met with the following prompt page



1. Within the prompt box, make sure to write an examination topic of your choice. It can be anything. Click **Submit**
2. You will be met with a confirmation page, click **Yes, proceed** and allow for about 5-10 seconds for the exam to generate itself.

****

1. Then you will be met with the A.I. generated exam
2. 
3. You will have an option to export the exam to an excel file at the bottom of the page

## **Manual Exam Generation**

(as of 10/19/2023 only chapter 1 works due implementing excel files instead of txt. The full excel reading implementation logic IS THERE if needed.)

## 

#### **Getting Started**

As seen above, click on ‘Select Questions for Exam’. Select Questions, and click ‘submit’.

1. **Accessing an Exam**

Upon clicking submit, you will be provided with a unique link, directing you to your exam. Click on this link, and you'll be taken to a webpage displaying your exam questions.

1. **Exam Duration**:

Be aware of the exam's time limit. The system ensures fairness by only allowing answers to be submitted within this official duration. The duration is set by the instructor.

#### **During the Exam**

Here's what you can expect when you're taking your exam:

1. **Answering Questions**:

For each question, you'll select your answer from the provided options.

1. **Submitting Your Exam**:

Once you've answered all questions, you'll click the 'Submit' button. This action finalizes your exam and sends your answers for evaluation.

#### **After the Exam**

After submitting your exam, here's what will happen:

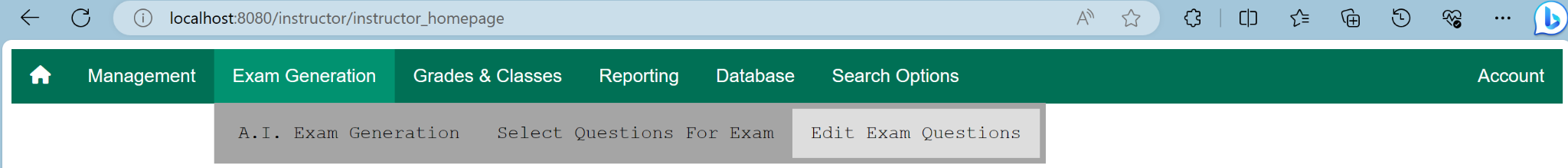
1. **Score Calculation**:

The system automatically calculates your score based on the correct responses you provided.

1. **Viewing Your Results**:

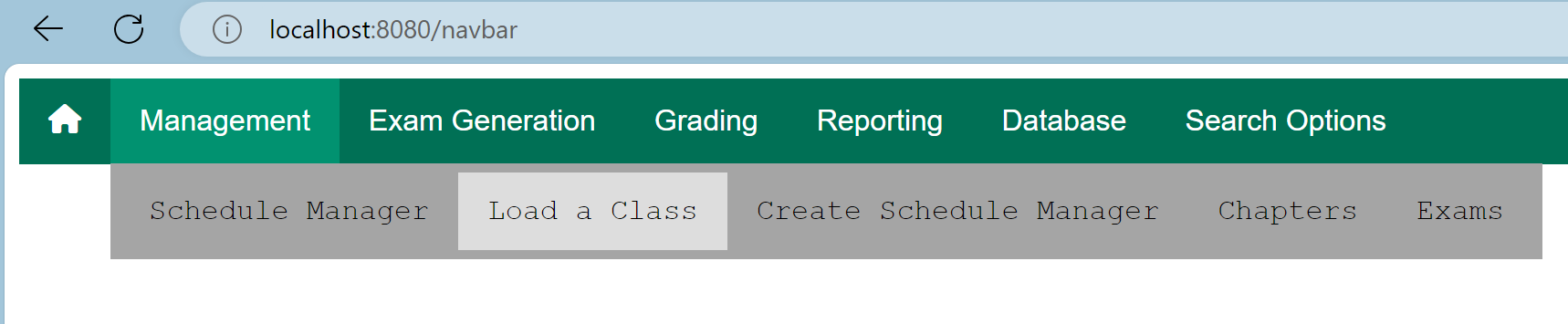
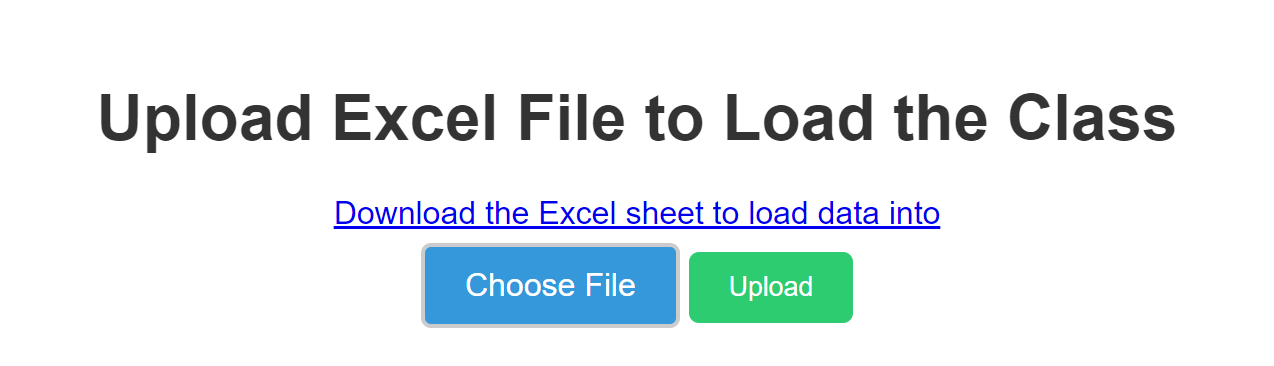
After evaluation, you'll be able to see your total score, along with feedback on any incorrect answers.

## **Editing Exams**



1. By clicking on the ‘Edit Exam Questions’ as seen above, an instructor can manipulate, edit, add or delete questions and their respective options as they please.

## **Importing a Class via Excel**

1. In the "Load a Class" feature of our program, you can easily populate your database with essential academic information. Simply upload an Excel file that contains columns for students, instructor and the course name. The program will automatically parse through the file, identifying each role based on the column headers. It will then upload this data into their respective tables in the database. Additionally, a copy of this information will be stored in the user table for easy access and management. This streamlined process eliminates the need for manual entry, saving you both time and effort.
2. 
3. 
4. Upon clicking on ’Download the Excel sheet to load data into’ you’ll have an excel file downloaded into your ‘Downloads’ folder.
5. You can open the file, write the student course information in, and save.
6. Choose file, upload it, and the database will get populated.

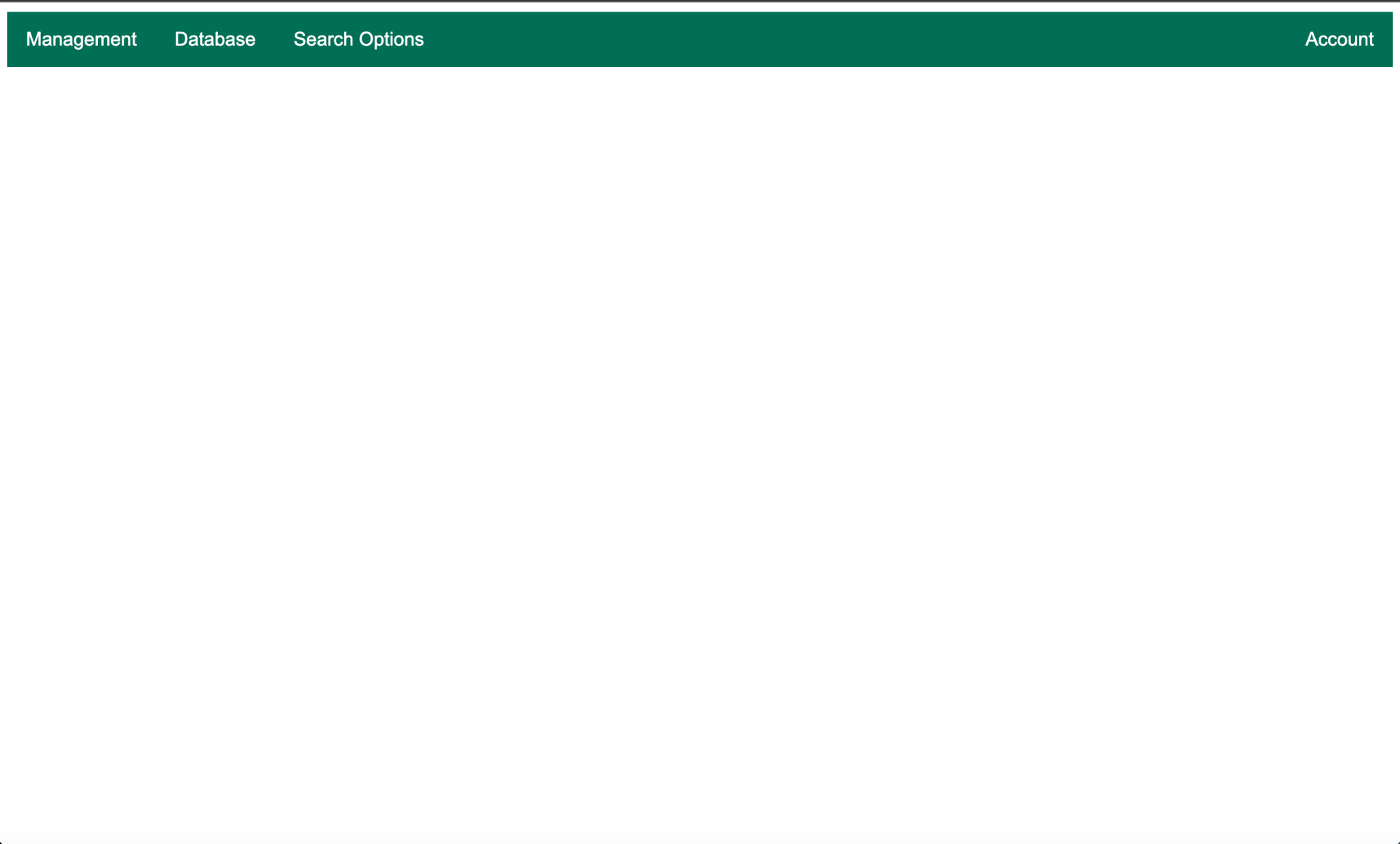
## **Logging in as a Schedule Manager**

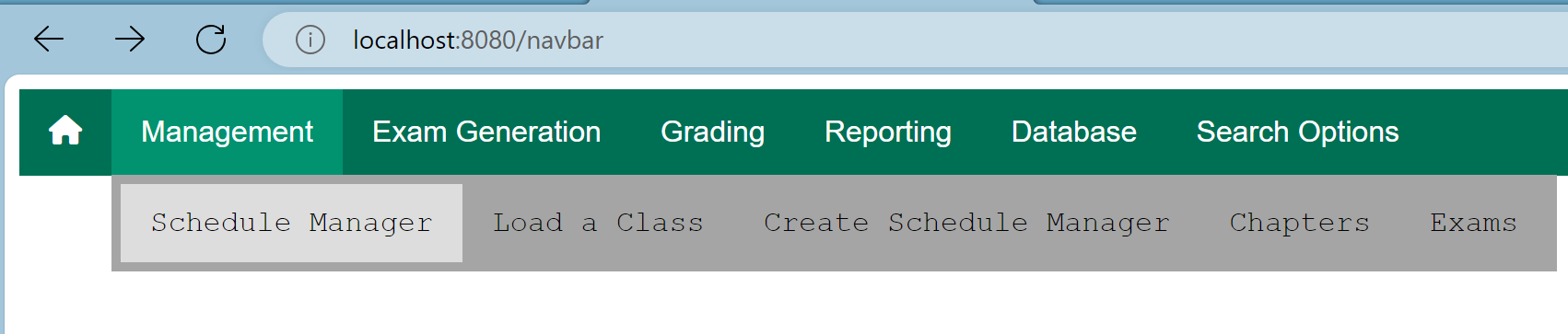
The default login and password to view the schedule manager homepage are as follows:

Username: schedulemanager

Password: schedulemanager

1. You will be prompted with this page



1. You have a navigation bar that has multiple options, the current options that are available are Management, Database, Search Options. The role of the schedule manager is to handle the associations between the students/instructors and their classes.
   1. Management has 1 options under it
      1. Schedule Manager - This is the main dashboard for the schedule manager; A schedule manager is able to see all instructors, add an instructor, add a new course, assign instructor to course, edit instructor, and delete instructor, once clicked on the navbar is messed up at this point, but it is under development.
      2. ******
   2. Database -
      1. View All Students - Takes the Schedule Manger to a html page to view/edit/delete students
      2. View All Scheduled Managers - Takes the Schedule Manger to a html page to view/edit/delete schedule managers
      3. Add Students - Takes the Schedule Manager to a page to add a student to the user repositories
      4. Add Instructors - Takes the Schedule Manager to a page to add a instructor to the user repositories
      5. Add Courses - Takes the Schedule Manager to a page to add a course to the course repository
      6. Assign Students - Takes the Schedule Manager to a page to add a student to an available class.
      7. Assign Instructors - Takes the Schedule Manager to a page to add an instructor to an available class.
      8. Export To Excel - Exports a repository in the database to an excel file
      9. Import with Excel - Redirects to a page where the schedule manager can import a file via excel
      10. View all Administrators - ***Currently not functioning***
   3. Search Options - ***Currently not functional***

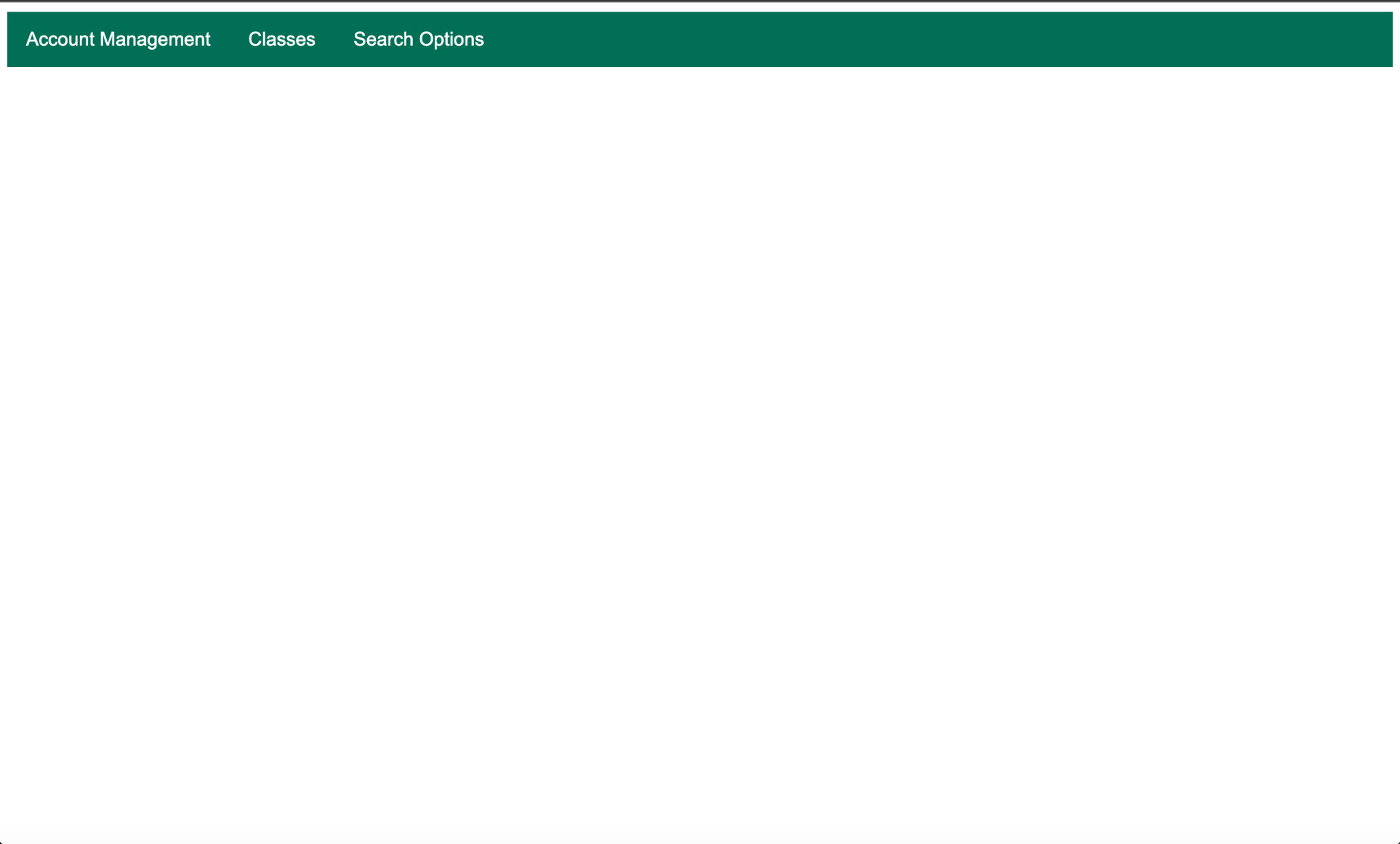
## **Logging in as a Student**

The default login and password to view the Student Homepage are as follows:

Username: student

Password: student

1. When logging in as a student you will be prompted by this page



1. You have a navigation bar that has multiple options, the current options that are available are Account Management, Classes, Search Options. The role of the student is simply as it sounds, it is to complete assignments and objectives that the instructor assigns.
   1. Account management
      1. Change password - ***Currently not functional***
      2. Logout - Logout function for student
   2. Classes- ***Currently not functional***
      1. ***Class 1 - for student***
      2. ***Class 2 - for student***
   3. Search options
      1. Search - ***Currently not functional***

## 

## 

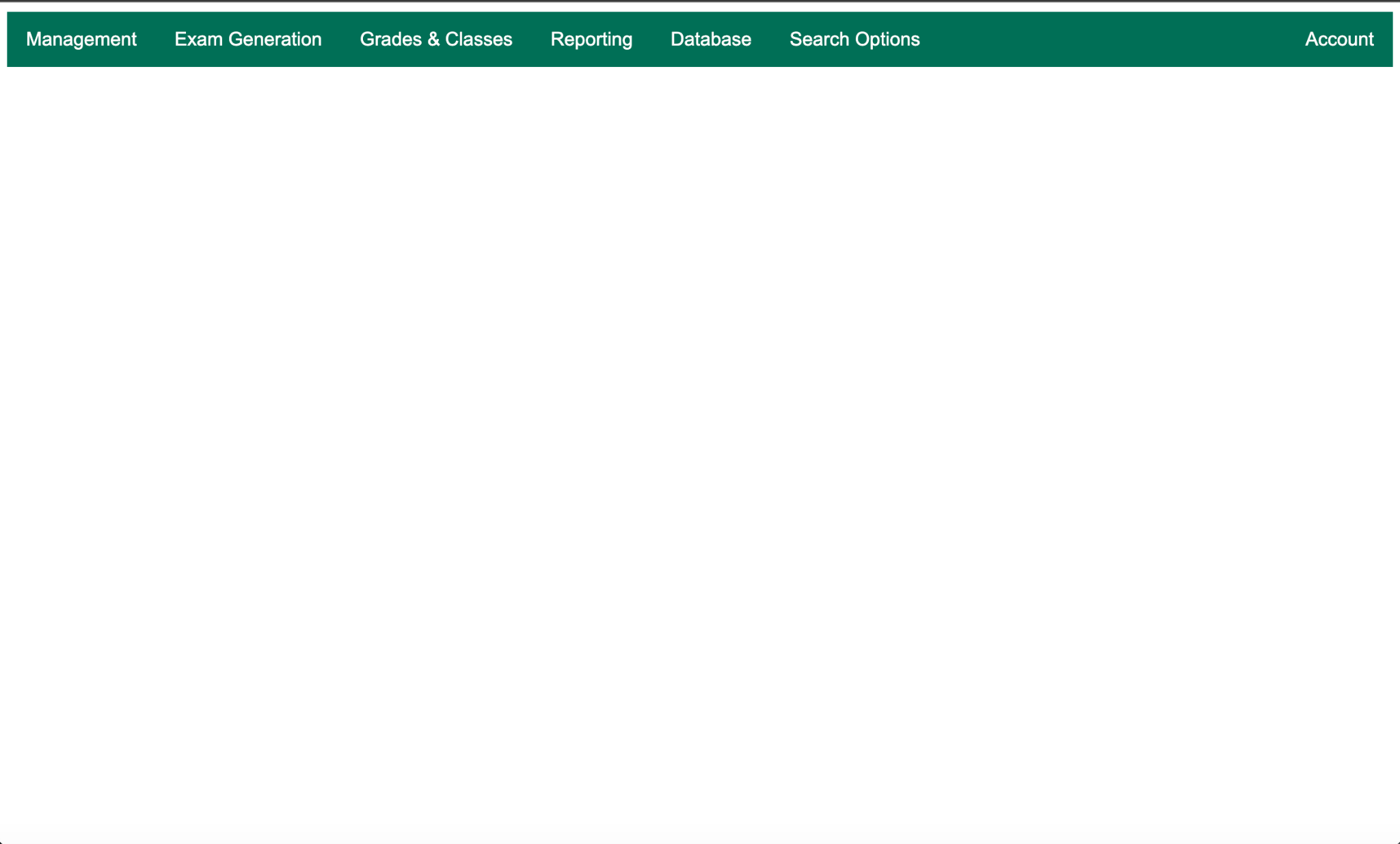
## **Logging in as an instructor**

The default login and password to view the Instructor Homepage are as follows:

Username: instructor

Password: instructor

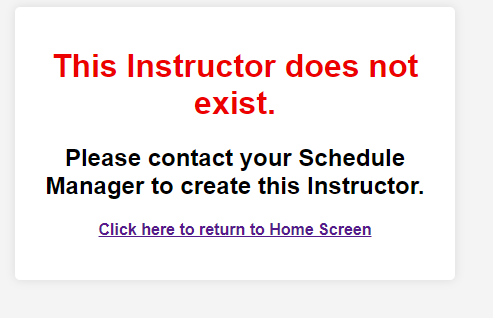
1. When logged in as an instructor you will be prompted with this homepage



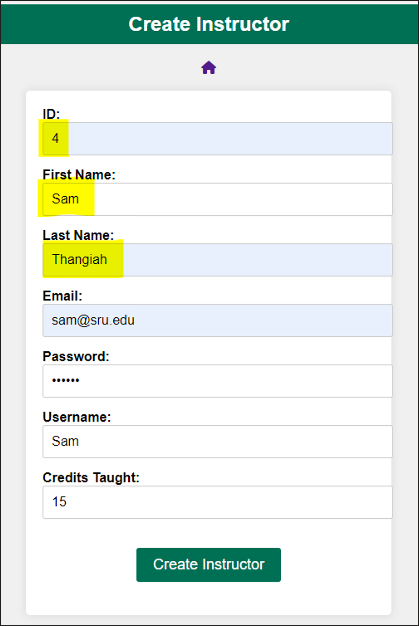
* 1. Management has 5 options under it
  2. Management
     1. Load a Class - This gives the option to the administrator to upload a class and its parameters to the database, and associates the student/teacher with a class.
        1. Choosing file - If you have a file you would like to upload this is where you would upload the file to
        2. Upload - is where you would upload the selected file
     2. Classes & Chapters - This lets the instructor choose between chapters and different examination forms. This is ***under Development***
     3. Exams - Allows the user to pick a class and get redirected to an exam
  3. Exam Generation
     1. Exam Generator - A full-fledged AI-Exam generator. Simply pick a topic and it will generate an exam for you. See ‘A.I. Exam Generation’ for in-depth user manual information.
  4. Grades and Classes -
     1. This shows the classes that the instructor is associated with, the instructor will then be able to manipulate that class to their curriculum, ***Currently not functioning***
  5. Reporting
     1. Exam information - ***Currently Not Functioning***
     2. IP Address - ***Currently Not Functioning***
  6. Database
     1. View All Students - Takes the instructor to a html page to view/edit/delete students
     2. View All Schedule Managers - Takes the instructor to a html page to view schedule managers
     3. Add Students - Allows instructor to add a student to the database
     4. Assign Students - Allows instructor to assign a student to their course
     5. Export To Excel - Exports a repository in the database to an excel file
     6. Import with Excel - Redirects to a page where the instructors can import a file via excel
     7. View all Administrators - Allows instructor to view an administrator to the database
  7. Search options
     1. Search - ***Currently not functional***

## **Loading a Class Roster**

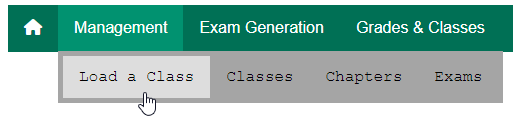
* 1. For **testing purposes** there is a file already created and stored in the ***Documents*** folder in our project titled ***class\_data.xlsx*** that has the class roster written and formatted for you.
  2. Before loading the data you must login as a schedule manager, the default schedule manager will work fine for this test and create an instructor, or you will be granted an error page as shown here.



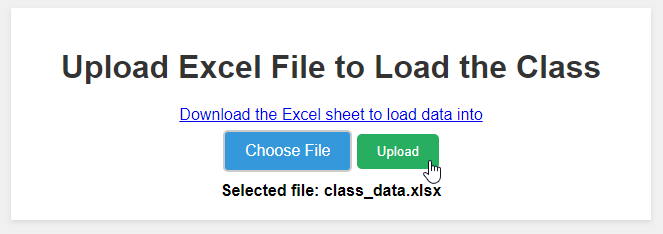
* 1. For the test data, please create the instructor with the following **highlighted** information, **non highlighted** information will not affect the test.

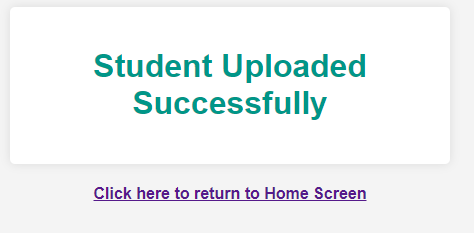


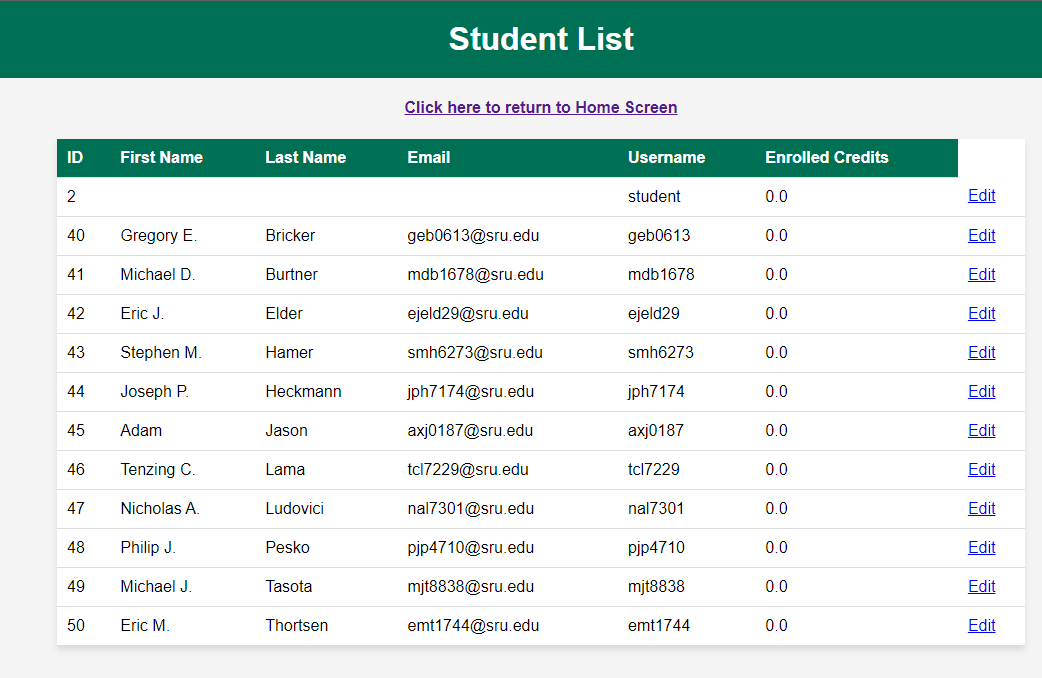
1. First you will need to be logged in as either an instructor (you can use the above mentioned instructor that you created) or schedule manager and use the navigation bar to hover over ***Management*** and select ***Load a Class.***



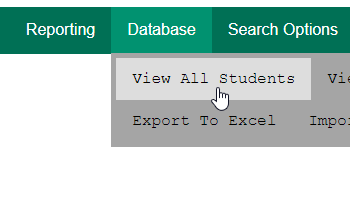
1. You will then need to select ***Choose File*** and use your system file explorer to find your roster loaded with class information.

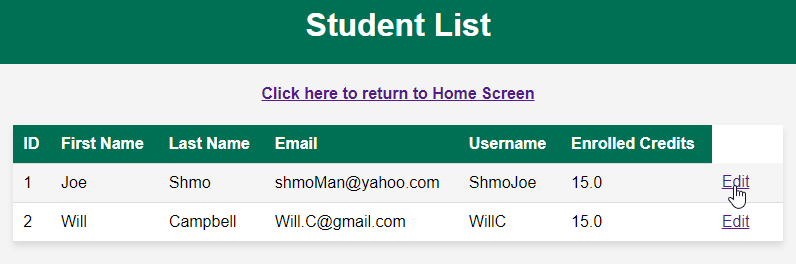


1. Once you select the file you can click upload and you will then be prompted with a success page as long as the roster is formatted correctly.
2. You can then navigate to the ***Student List*** page and view the newly added roster of students, you can then login as the student created using their listed ***Username*** and the default password of ***student.***

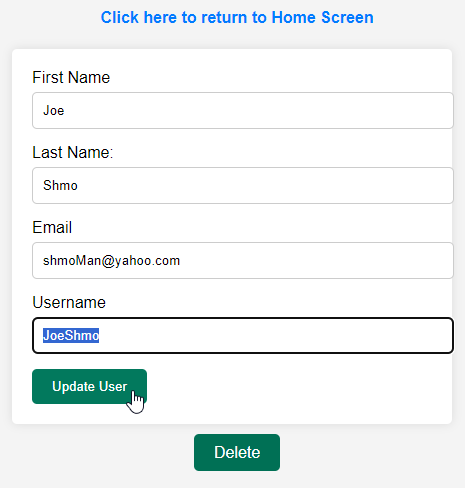


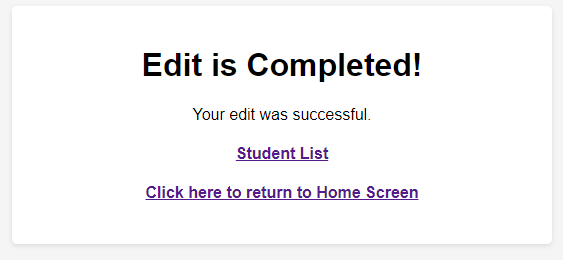
## **Editing a Student**

1. When you need to edit a student, you will need to navigate under the ***Database*** tab and select ***View All Students***
2. You will then be presented with a list of students with an ***Edit*** option beside them.



1. When you select the ***Edit*** button, you will be presented with a page where you can edit the students information



1. The information will be updated in the ***View All Students*** page that you can navigate back to from this page.

## 