

Haven's Light is Our Guide



Rajshahi University of Engineering and Technology

Course No. : CSE-2188

Lab Report no. : 01

Submitted By,

Group no. : 07

Roll : 1908034, 1908035,
1908036, 1908037, 1908038

Department: Mechatronics
Engineering

Series : 19

Submission Date: August 10, 2022

Project Title: A student management system for course adviser

Objective:

- Learning to use Java coding language
- Creating a working application using Java

Introduction:

An application design requires the designer to know the requirements of the user and what objective the application serves. A good application meets all the requirements and delivers everything that the user needs.

The application that was made for this lab had the main objective of creating a database to store all sorts of data that maybe needed for a course adviser. We also had to take care of all the small features that may be needed so the experience while using the application is not dull. It is always a developers wis to meet the expectations of the customers as much as possible.

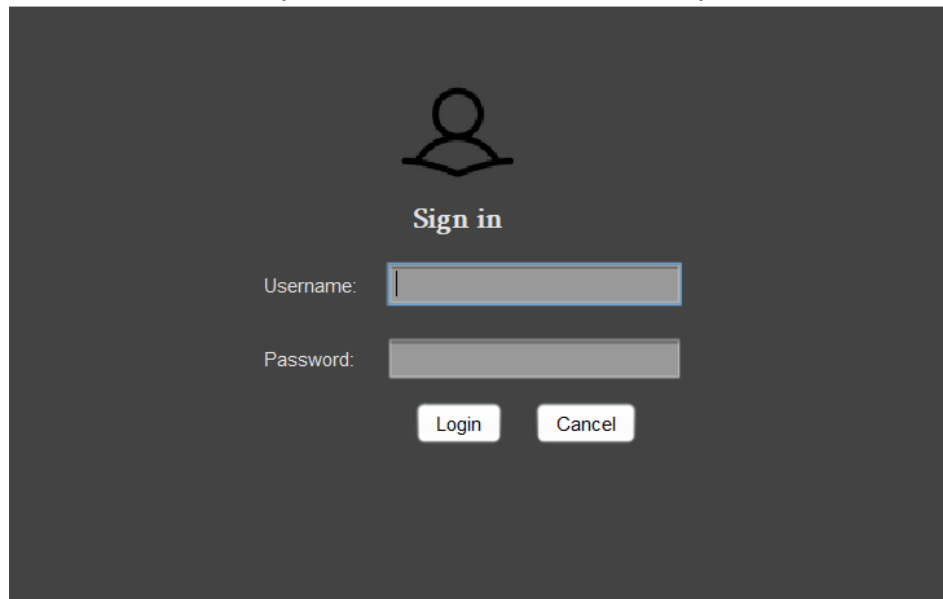
Though it may always not be possible to meet the expectations but through various updates and bug fixing it is possible to give a bit more finished product than the starting product. The application that was chosen to develop here is one such application that can be made even better through updates and bug fixing.

Used Platform:

- Programming language: To develop the application Java was chosen as the programming language. It is a very intuitive language for this kind of application.
- Database: For the database MySQL was chosen as it goes well with the java programming language.
- IDE: For the integrated developing environment of this application NetBeans was chosen. This is a popular choice and also provides all sorts of functionality needed for the development of the application.
- OS: The application was built for Personal computers. So, any operating system used in personal computers such as Windows, Linux or MacOS can run the program.

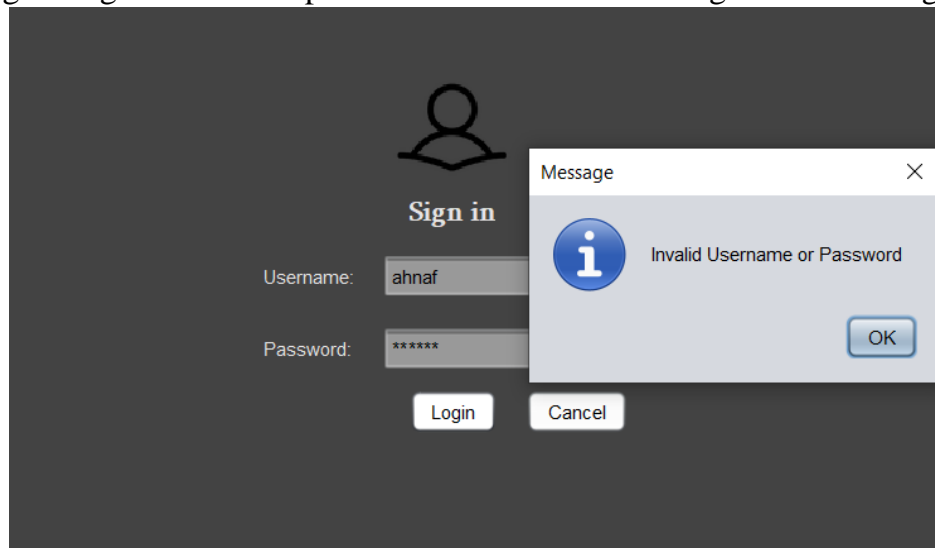
Features:

- GUI: Graphical User Interface has been added so that the user can easily glide through the application.
- Sign-in Panel: We have decided to add a sign in panel so no one but the authorised may be able to see or make any change in the data table. The sign in panel here doesn't allow anyone that doesn't have an entry in a database.



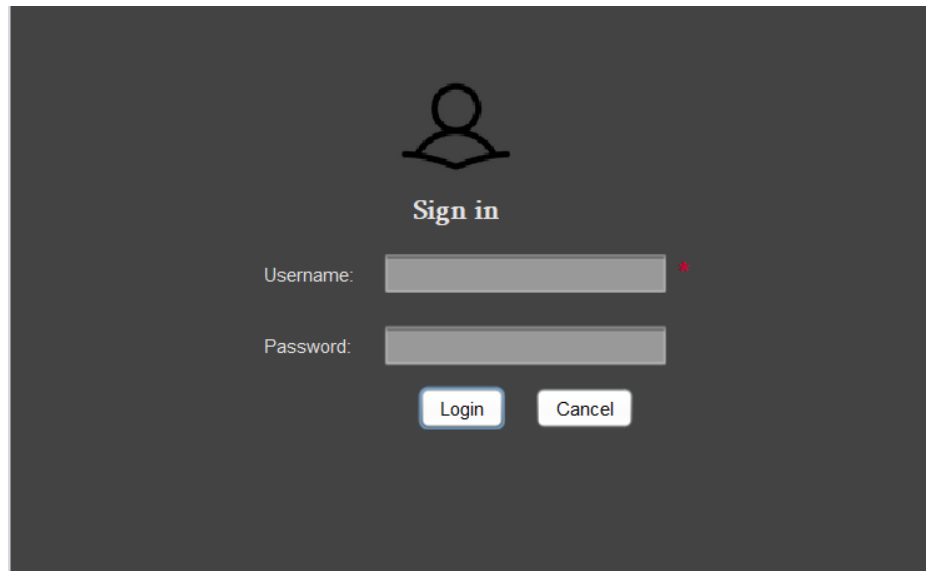
A screenshot of a dark-themed sign-in panel. At the top center is a white icon of a person. Below it, the text "Sign in" is displayed in white. There are two input fields: "Username:" followed by a text box and "Password:" followed by a password box. At the bottom, there are two buttons: "Login" and "Cancel".

Entering wrong username or password will lead to showing an error dialogue.



A screenshot of the same sign-in panel, but with an error message displayed. The "Username:" field contains the text "ahnaf" and the "Password:" field contains "*****". An error dialog box titled "Message" is overlaid on the right side of the panel. The dialog box has a blue information icon and the text "Invalid Username or Password". There is an "OK" button in the bottom right corner of the dialog box. The "Login" and "Cancel" buttons are still visible at the bottom of the sign-in panel.

Also, if any fields are left empty, there is a pointer to point which fields are left empty.

A dark-themed sign-in form. At the top center is a white icon of a person with an open book. Below it is the text "Sign in". There are two input fields: "Username:" and "Password:". The "Username:" field has a small red asterisk to its right. Below the input fields are two buttons: "Login" and "Cancel".

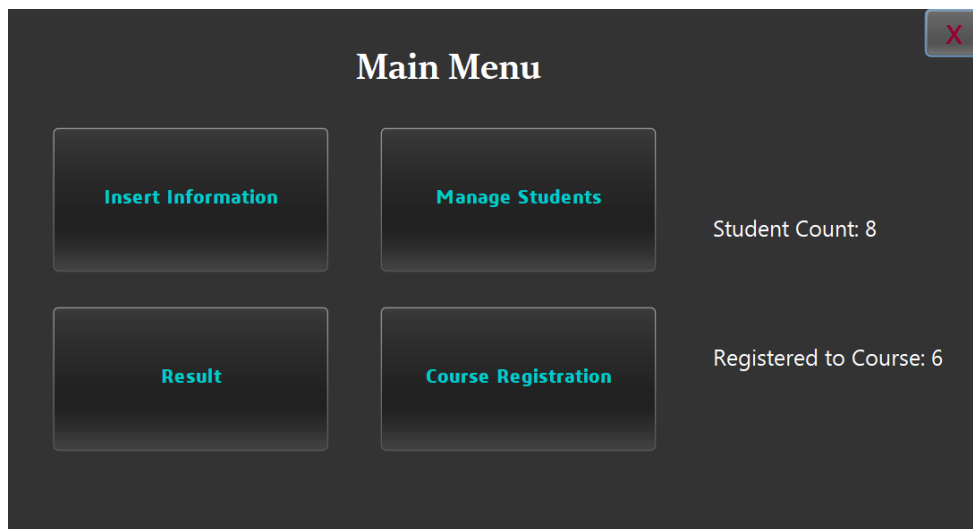
Sign in

Username:

Password:

Login Cancel

- Menu page: Menu page is present in the application so that the user can go from one page to another and it stays up to the user which page they want to visit. There is also a counter present so the user may know how many students had been enrolled and how many students have some sort of course registered to.

A dark-themed main menu window with a title bar that says "Main Menu" and a close button (X) in the top right corner. The menu contains four buttons arranged in a 2x2 grid: "Insert Information", "Manage Students", "Result", and "Course Registration". To the right of the buttons, there are two lines of text: "Student Count: 8" and "Registered to Course: 6".

Main Menu

Insert Information Manage Students

Result Course Registration

Student Count: 8

Registered to Course: 6


- Student information adding interface: This page is where all the personal information of the students is inserted. There are text fields provided to add all the necessary information. There are also three buttons present. 1. Add, 2. Clear & 3. Cancel.

Student Information

First Name :

Last Name :

Gender : ☒ Male ☐ Female

Birth Date : 

Phone No :

Address :

Roll no:


1. Add button inserts all the information and for successful entry it gives feedback.

Student Information

First Name :


Last Name :

Gender : ☒ Male ☐ Female

Birth Date : 

Roll no:

Message

 New Student Added

The button will only insert if all the fields have been filled. Otherwise, it will give another warning dialog.

Student Information

First Name :

Last Name :

Gender : ☒ Male ☐ Female

Birth Date :

Address :

Roll no:

Message

One or More Fields are empty

2. Clear button is present to clear out all the fields at once.
 3. Cancel button here takes the user back to the main menu.
- Student Data management page: Student management page is present to edit or remove any unnecessary or wrong information. There is also a data table present in this page so the user can see in real time what data are being added or removed or being edited.

Student Database

ID:

First Name :

Last Name :

Gender : ☒ Male ☐ Female

Birth Date :

Phone No :

Address :

Roll no:

Id	FirstName	LastName	Gender	Phoneno	Address	RollNo
1	Ahnaf	Supta	Male	018284856	Savar, Dha...	1908034
2	Animul	Zaki	Male	0183477744	Rajshahi	1908038
4	Azizul	Haque	Male	0187345474	Motihar	1908023
5	Arpita	Karmakar	Female	015447556	Bogura	1908035
6	Rownak	Subrina	Female	014548848	Dhaka	1908032
8	Anonno Sin...	Roy	Male	0148774737	Rajshahi	1908025
11	Sarwan	Sadique	Male	019358748	Rangpur	1908022
14	1532	8598	Male	526161651	khkbjbbb	34567890
15	Hameem	Julfiquir	Male	018475849...	Talaimari, ...	1908004

Search:

- Student result adding interface: This page is to insert the results of the students.

Result

Course Title

Roll

CGPA

Grade

Roll No.	Course No.	CGPA	Grade
1908033	MTE 1101	4	A
1908033	Math1127	3	A
1908032	Math2286	4	A+
1908021	CSE 2188	4	A+

- Course Registration interface: This page is present to add the students to their respective course.

Course Registration

Course Title

Credit

Roll

Id	Course Title	Credit	Roll No.
1	MTE1101	2	1908031
2	Math 1127	2	1908031
5	CSE2187	3	1908034
6	EEE3288	3	1908043
7	ME2156	2	1908056
8	kjnkjnkj	0	4567890

- A visible Data Table: A data table is given in management, result inserting and course registration page. So, the user may see what data has been inserted in real time.
- Small various other features: Various small features such as not being able to add letters in number fields is added.

Procedure:

1. We have planned of the entire project.
2. Installed java, NetBeans IDE, XAMPP, MySQL in the pc
3. Made a prototype of the project.
4. Designed the interface of the project in the NetBeans.
5. Written the codes in the NetBeans.
6. Make connection of the MySQL and NetBeans using xampp.
7. Written the code to make count the number of students in Database
8. Written the code of getting data from database and it worked perfectly.

9. Fixed a number of errors that is happening during data management.

Various bugs:

- When returning from another page the counter present in the main page doesn't change.
- The data adding feature has not been working properly as it crashes when trying to compile.
- Data entry in the data table is not shown unless the page is refreshed.
- Making an executable file was not possible due to the program unexpectedly crashing or showing errors.
- The credits show only integer values.
- Numbers can be added in the name fields.

Discussion:

The project was done due time. From the project, time management technique was learned. For completing the project different error finding path technique was used. For coding part learning Java was essential and working simultaneously with XAMPP and NetBeans. For designing Part NetBeans IDE Was Used. Finally, everything which is needed, worked well.

Conclusion:

The project was done with the effort of every group member of our group. Debugging and code modify technique was learned by doing this project.

Learned how to publish software in any platform. How to manage time for the project and submit it due time. It taught how an efficient group can make something Easy. looking forward to upgrade this software and make it online based and easily accessible to anyone.