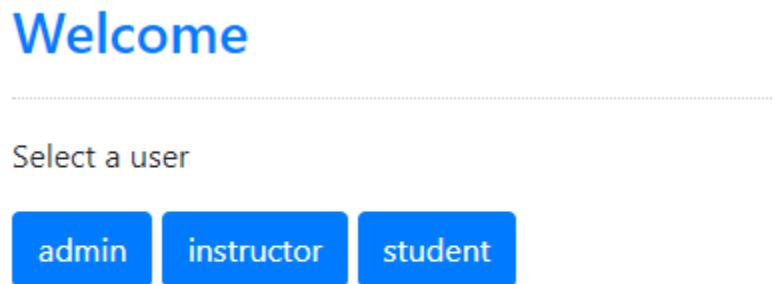


Database-Backed Web Application User Manual

Section 1: Selecting a User from the Homepage:

This application contains features and processes for three distinct users, Admin, Instructor, and Student. Each user has different data available to them, and selecting your user is as simple as clicking one of our three homepage buttons, as shown here:



If you are an administrator and have administrative permissions, you would click the `admin` button, if you are an instructor, you'd select the `instructor` button, and if you were a student you'd select the `student` button. Each of these pages will have different functionality, so each is covered in sections 2-4 of this manual.

Section 2: Functionality of the Admin User Page

When the `admin` button is selected from the homepage, you will be brought to the below screen:

[home](#)

Welcome!

Click button to get list of instructor names ordered by name, department and salary:

[Name](#) [Department](#) [Salary](#)

Click button to get list of minimum, maximum, and average salaries by department:

[Minimum](#) [Maximum](#) [Average](#)

Fill out the form below to get performance data of an instructor:

Name: Year: Semester:

There are three sections on this page, allowing for multiple administrative functions, as well as a `home` button which returns you to the homepage.

Section 2.1: Instructor Roster

The top section, with buttons `Name`, `Department`, and `Salary`, returns a list of professors ordered by the value of the button pressed. For example, pressing the `Name` button yields a list of professors ordered alphabetically by name, as shown here:

Click button to get list of instructor names ordered by name,department and salary:

[Name](#) [Department](#) [Salary](#)

Ordered by Name

Name

Hou
Khondker
Lambert
Lynch
Martin
NEW MA
New Prof.
Ramsdell

Alternatively, if the `Department` button is pressed, a list of instructors will be displayed ordered alphabetically by department name, as shown here:

Click button to get list of instructor names ordered by name,department and salary:

`Name` `Department` `Salary`

Ordered by Department name

Name

New Prof.
Lambert
Thorpe
Lynch
Hou
Khondker
Martin
Yao
NEW MA
White
Ramsdell

Finally, if the `Salary` button is selected, the list of names will again be displayed, but this time ordered by instructor salary, from least to greatest, as shown here:

Click button to get list of instructor names ordered by name,department and salary:

`Name` `Department` `Salary`

Ordered by Department name

Name

New Prof.
Lambert
Thorpe
Lynch
Hou
Khondker
Martin
Yao
NEW MA
White
Ramsdell

Section 2.2: Departmental Salaries

The second block in this page allows an administrator to see minimum, maximum, and average salaries for each department in our database.

There are three buttons, `Minimum`, `Maximum`, and `Average` on this page, each outputting a different table. If the `Minimum` button is pressed, a table displaying the minimum salary paid in each department is displayed, as shown here:

Click button to get list of minimum, maximum, and average salaries by department:

Minimum

Maximum

Average

Minumum Salaries by Department

Department Name	Minimum Salary
CHE	150000
CS	95000
ECE	100000
MA	89000
PH	98000

Alternatively, if the `Maximum` button is pressed, the maximum salary paid in each department will be displayed, as shown here:

Minimum

Maximum

Average

Max Salaries by Department

Department Name	Maximum Salary
CHE	150000
CS	100000
ECE	250000
MA	250000
PH	98000

Finally, if the `Average` button is pressed, the average salary of each department is displayed, as shown here:

<code>Minimum</code>	<code>Maximum</code>	<code>Average</code>
Average Salaries by Department		
Department Name	Average Salary	
CHE	150000.0000	
CS	97500.0000	
ECE	175000.0000	
MA	134500.0000	
PH	98000.0000	

Section 2.3: Instructor Performance

The third and final section on the administrative page has three dropdown menus, `Select Name`, `Select Year`, and `Select Semester`, as well as a `Submit` button. These drop downs are populated with data from the database, as shown here:

Fill out the form below to get performance data of an instructor:

Name: `-- Select Name --` Year: `-- Select Year --` Semester: `-- Select Semester --` `Submit`

`-- Select Name --`

- Hou
- Lambert
- Thorpe
- Lynch
- Martin
- Ramsdell
- Yao
- Khondker
- NEW MA
- White
- New Prof.

This section will display performance information for the input instructor name, year, and semester when the `Submit` button is pressed. The resultant table shows the number of sections taught, number of students taught, the amount of funding received, and the number of papers published:

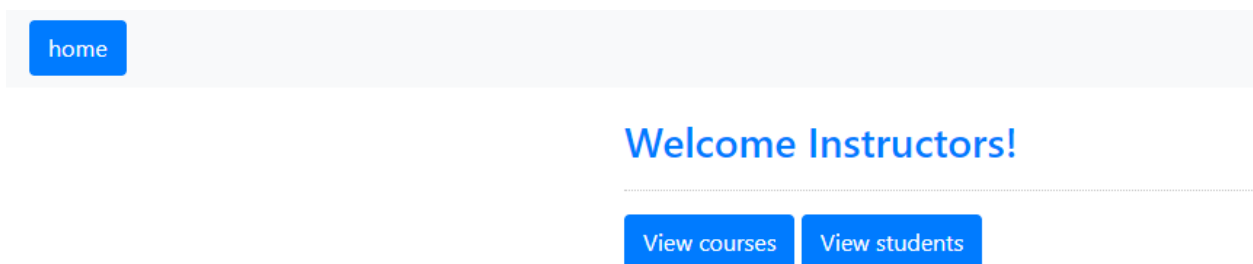
Fill out the form below to get performance data of an instructor:

Name: Year: Semester:

Name	#Sections	#Students	Funding	Papers Published
Hou	2	2	11500000	1

Section 3: Functionality of the Instructor User Page:

When the `instructor` button is pressed on the homepage, the user is brought to the following screen, called the instructor page:



This page has two buttons, `View courses` and `View students`, as well as a `home` button, which takes the user back to the homepage.

Section 3.1: The Courses Page

Pressing the `View courses` button takes the user to this page:

Welcome Instructor!

ID: Year: Semester:

This page also has a `home` button, which takes the user back to the home page, as well as a `back` button, which takes the user back to the instructor page. There are three fields to enter text into, `ID`, `Year`, and `Semester`. The `ID` field takes in the instructor's ID, the `Year` field takes in the year the instructor wants to filter for, and `Semester` takes in the semester the instructor wants to filter for. When filled out and the `Submit` button is pressed, the resultant table shows a list of course ID's, sections, and the number of students in those courses and sections taught by the input instructor in the year and semester entered:

Your Courses

Course ID	Section	Number of Students
EE468	01	1
EE468	02	1

Section 3.2: The Students Page

Returning to the instructor page, and selecting the `View Students` button, we are greeted with the following page:

[back](#) [home](#)

Welcome Instructor!

Instructor Name:

Course:

Semester:

This page contains the same `home` and `back` buttons as the `Courses` page, but with different text entry fields, called `Instructor Name`, `Course`, and `Semester`. The `Instructor Name` field takes an instructor's name, the `Course` field takes a course ID, and the `Semester` field takes a semester, 1 for Fall, and 2 for Spring. When the form is filled out and the `Submit` button pressed, a table showing all students who were taught by the input instructor for the entered course and semester:

Welcome Instructor!

Instructor Name:

Course:

Semester:

Ordered by Name

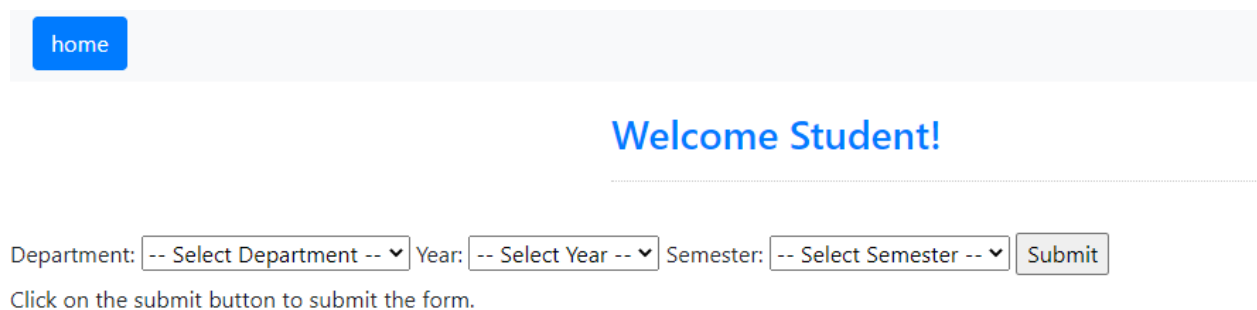
Students [Hou, EE468, Fall]

Zhang

Megan

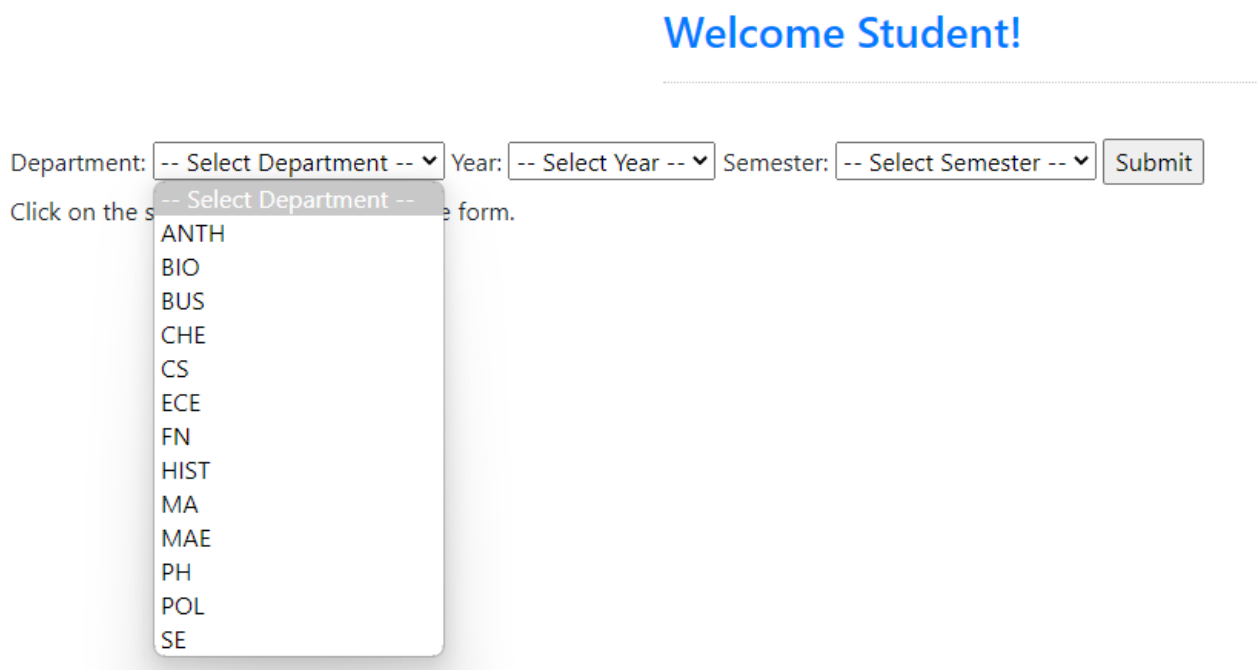
Section 4: The Student User Page

When selecting the `student` option from the homepage, the user is taken to this screen:



A screenshot of a web page for a student user. At the top left, there is a blue button labeled "home". In the center, the text "Welcome Student!" is displayed in blue. Below this, there is a form with three dropdown menus labeled "Department:", "Year:", and "Semester:". Each dropdown menu has a placeholder text "-- Select Department --", "-- Select Year --", and "-- Select Semester --" respectively. To the right of these dropdowns is a "Submit" button. Below the form, there is a text instruction: "Click on the submit button to submit the form."

There is a `home` button on this page that will take the user back to the homepage, as well as a form containing three dropdowns, `Select Department`, `Select Year`, and `Select Semester`. These drop downs contain values obtained from our database, as shown here:



A screenshot of the same web page as above, but with the "Department:" dropdown menu open. The dropdown menu displays a list of department abbreviations: ANTH, BIO, BUS, CHE, CS, ECE, FN, HIST, MA, MAE, PH, POL, and SE. The "Submit" button and the text instruction "Click on the submit button to submit the form." are still visible.

The `Select Department` field takes a department to filter by, the `Select Year` field takes in a year to filter by, and the `Select Semester` field takes in a year to filter by. When the form is filled and the `Submit` button is pressed, a table is shown listing the course sections offered by the input department during the entered year and semester. The table also shows what building and room the course is in, and that room's capacity:

Welcome Student!

Course	Section	Semester	Year	Building	Room	Capacity
CS141	01	2	2019	CAMP	194	60
CS141	02	2	2019	CAMP	194	60
CS141	03	2	2019	CAMP	194	60

Conclusion

This concludes the user manual for the Database-Backed Web Application.