

GROUP 33

**FINAL PROJECT
PRESENTATION**

HELLO!

BACK END

***Student 1*



***Student 2*

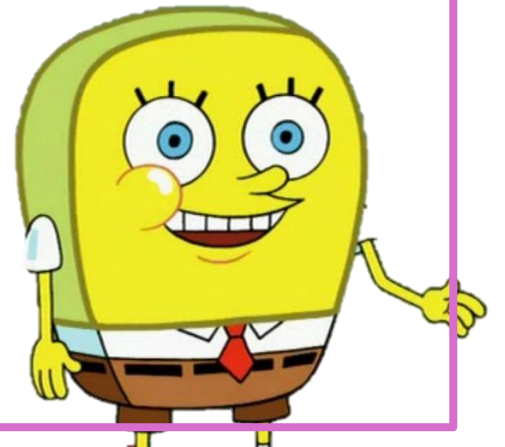


FRONT END

***Student 3*



***Student 4*



PROJECT TOPIC

OUR CHOOSSEN PROJECT TOPIC WAS:

TOPIC #2

Our topic involved making a university information system that had to store and manipulate data about its population

Each person in the population must be able to access specific tools depending on their role and their objective

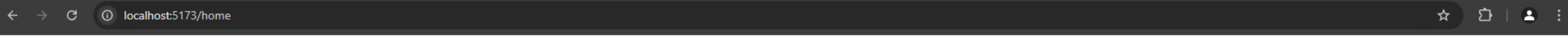
In summary, this required a database and web UI

FINAL PRESENTATION

PART 1

QUICK (not full)
demo of our
project / system execution

WELCOME PAGE



Racoon University Information System

Welcome to the University Information System your comprehensive platform for managing your academic journey. Whether you're a student, faculty, or staff member, this system is designed to provide easy access to important academic tools and data, helping you stay organized, informed, and empowered.

Features & Tools

****GPA Calculator****

The GPA Calculator is an essential tool for students to monitor academic performance. You can easily input your grades and credit hours to calculate your current GPA, or estimate future GPA based on your expected grades. It's a great way to track progress and set goals for your academic success.

****Data View****

The Data View feature offers you a quick and detailed overview of your academic history, including course registrations, grades, and overall academic progress. It provides a user-friendly interface to view all essential information at a glance, ensuring that you stay updated with your academic records.

****Data Edit****

Need to make changes to your personal or academic data? The Data Edit function allows authorized users to update specific details, such as contact information, course enrollments, or other academic preferences. Rest assured that any updates made will be carefully reviewed and processed to maintain the accuracy of the system.

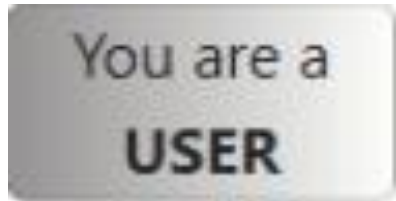
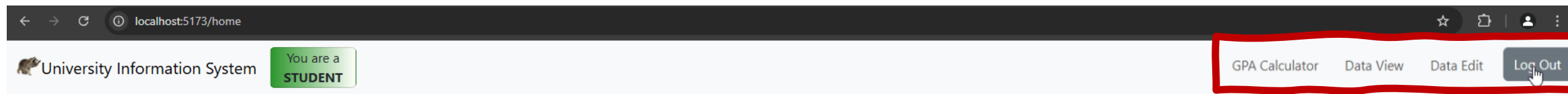
Get Started

Log in to begin exploring your personalized dashboard. Whether you're calculating your GPA, reviewing your academic records, or editing your information, the University Information System offers all the tools you need to succeed. Thank you for using **RUIS** – your academic success is our priority!

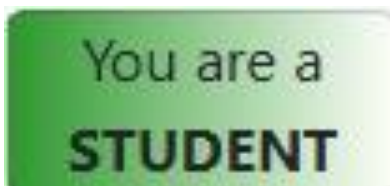
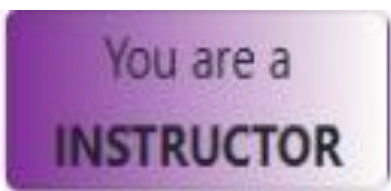
DEMO

MAIN PAGE COMPONENTS

Components designed to stay displayed during entire interaction

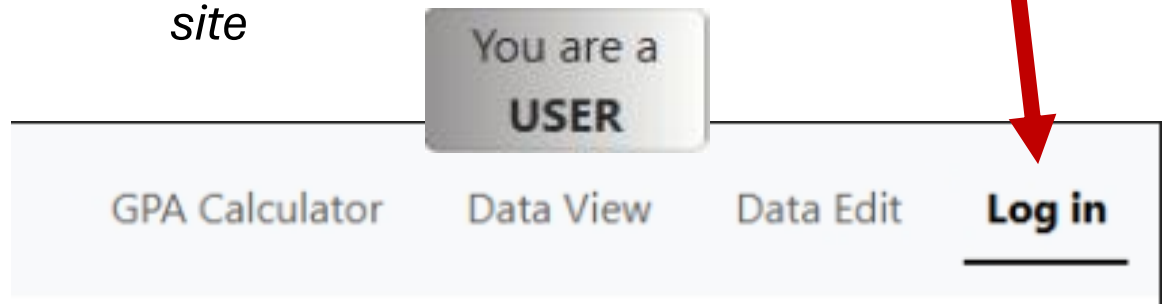


*User is equivalent to a guest
(not logged in)*



*Color coded for easy
Identification of role*

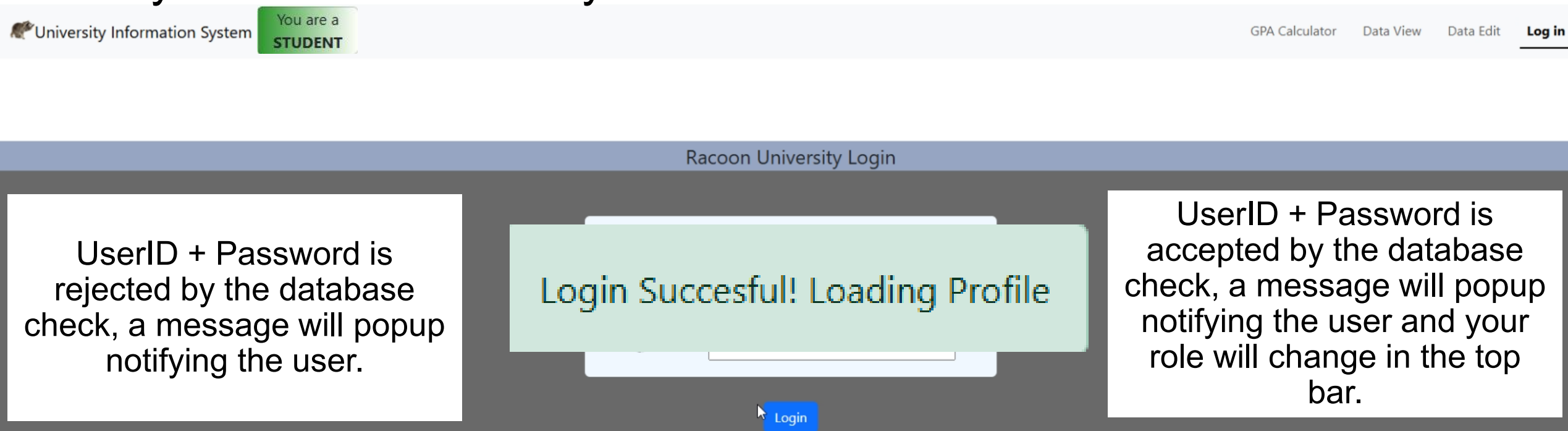
*Log out button changes to a Log in
page link if a User (Guest) is on the
site*



DEMO

LOGIN PAGE

Standard Login-Page required for registered users in the system to verify themselves in the system



The screenshot displays the 'Racoon University Login' interface. At the top, a navigation bar includes 'University Information System', a user role indicator 'You are a STUDENT', and links for 'GPA Calculator', 'Data View', 'Data Edit', and 'Log in'. The main content area features a central green message box stating 'Login Succesful! Loading Profile'. Below this, there are input fields for username and password, and a blue 'Login' button. The page is flanked by two explanatory text boxes.

University Information System You are a **STUDENT** GPA Calculator Data View Data Edit Log in

Racoon University Login

UserID + Password is rejected by the database check, a message will popup notifying the user.

Login Succesful! Loading Profile

UserID + Password is accepted by the database check, a message will popup notifying the user and your role will change in the top bar.

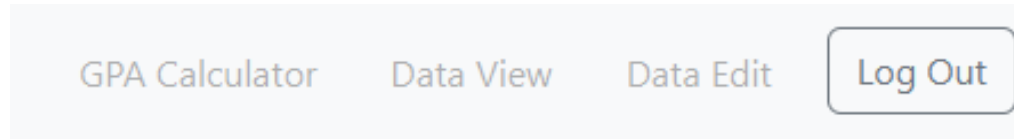
Login

DEMO

TOOLS: ACCESS PERMISSIONS

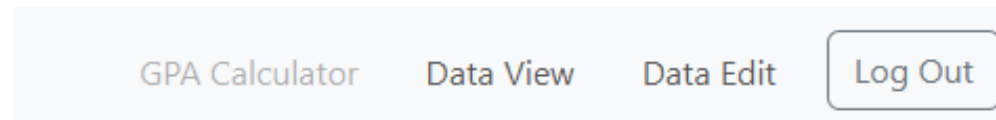
UI dynamically checks roles and restricts certain roles from using specific tools

You are a
USER



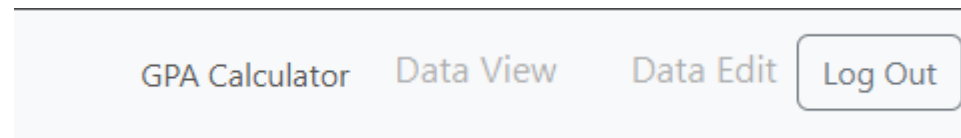
You are an
ADVISOR

You are a
STAFF



You are a
STUDENT

You are a
INSTRUCTOR



Tools that a role does NOT have permissions for are disabled in the navigation bar

DEMO

TOOLS: GPA Calculator

GPA Calculator

Submit

Color coded table
row to signify added
course + possible
GPA

ID	Course Name	Credit Hours	Grade	Grade point
1	CDA101	3	b	3
2	CDAL01	1	a	4
3	PHY115	3	a	4
4	ARC405	3	c	2
5	COP310	3	d	1
6	COP520	3	a	4
7	CYB295	3	a	4
8	ENG001	3	a	4
9	AIC955	2	b	3
10*	EXT100	3	d	1

DEMO

$3 + 4 + 4 + 2 + 1 + 4 + 4 + 4 + 3 + 1 + 1 = (30) / 10 >>> \text{GPA avg } 3.00$

TOOLS: DATA EDIT

You are an
ADVISOR

You are a
STAFF

DATA EDIT

Edit

Submit

Used for

- registering students into courses,
- removing students from courses,
- assigning instructors to courses
- or any edits if you're staff with a matching department

Old cell is crossed out and new cell is color coded to help user identify what changes

Changes to data is tracked within the database

	Student	StudentID	Date Added	Grad
	CDA101	1001	Spring 2024	A
	CDAL01	1001	Spring 2024	A
	PHY115	1001	Summer 2024	B
	ARC405	1001	Summer 2024	C
	COP310	1001	Fall 2023	A
	COP520	1001	Fall 2023	D
	CYB295	1001	Spring 2023	C
8	ENG001	1001	Spring 2023	B
9	AIC055	1001	Spring 2023	F
10	EXT100	1001	Fall 2024	N/A
10	AXT200	1001	Fall 2024	N/A

DEMO

TOOLS: DATA VIEW

You are an
ADVISOR

You are a
STAFF

You are a
STUDENT

Data View

Submit

Same functionality as the data edit tool without the edit methods.

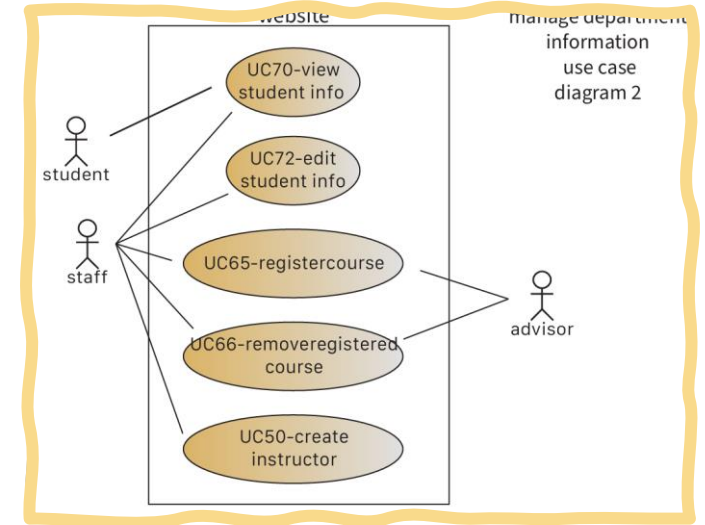
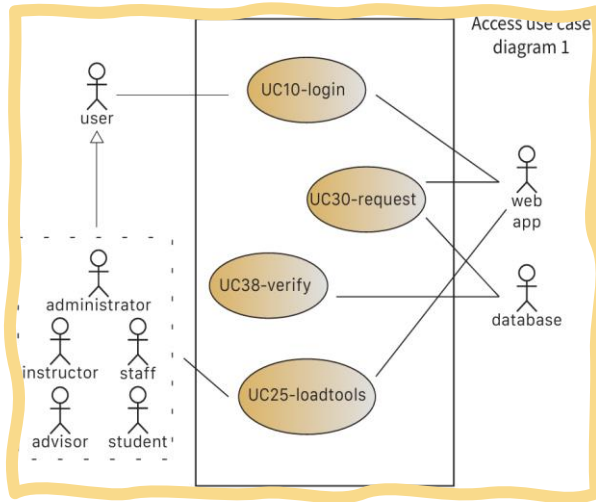
Useful for students to search course info.

#	Student	StudentID	Date Added	Grad
1	CDA101	1001	Spring 2024	A
2	CDAL01	1001	Spring 2024	A
3	PHY115	1001	Summer 2024	B
4	ARC405	1001	Summer 2024	C
5	COP310	1001	Fall 2023	A
6	COP520	1001	Fall 2023	D
7	CYB295	1001	Spring 2023	C
8	ENG001	1001	Spring 2023	B
9	AIC955	1001	Spring 2023	F

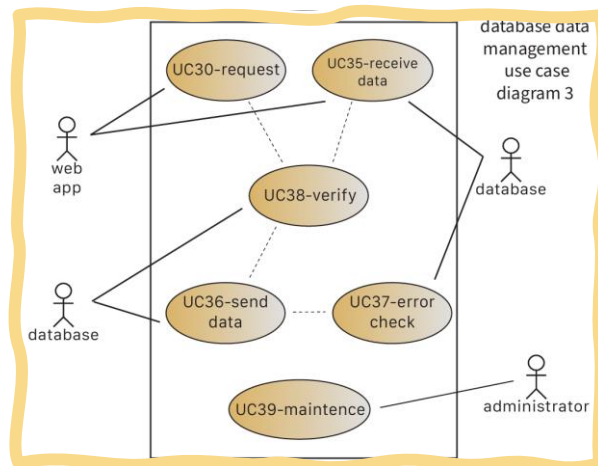
DEMO

FINAL PRESENTATION

PART 2









Use Cases Completion



USES CASES → SOLUTIONS

The project was broken down into 12 related use cases

- | | | |
|--|--|--|
| • Staff Modify All Department Related Data |  | SOLUTION:
Data edit tool + Staff permissions |
| • Advisors Drop/Add Students |  | SOLUTION:
Data edit tool + Advisor Permission + Validator |
| • Students/Instructors view information |  | SOLUTION: Data view tool |
| • Logging modified data within database |  | SOLUTION: Database Modify Tracker Table |
| • GPA prediction |  | SOLUTION: GPA Calculator tool |
| • Course GPA prediction |  | SOLUTION: GPA Calculator tool + Webpage Functions |

USES CASES → SOLUTIONS

The project was broken down into 12 related use cases

- Highest/Lowest GPA search
- Apply Search Filters
- Checking Course Enrollments
- Sort student data depending on advisor/staff input
- Database Query Handling
- Login/Logout functionality



SOLUTION:
Database Query Precision Tool + Data View Tool Filters



SOLUTION:
Database Query Precision Tool + Data View Tool Sort Function



SOLUTION: Data View Search Tool



SOLUTION: Web UI roles + Data View Search Tool



SOLUTION: Web UI to Database Library functions



SOLUTION: Database Queries + Web Security Cookies

FINAL PRESENTATION

PART 3

PERSPECTIVES AND LESSONS

PERSPECTIVE

During our project our group came up with a design philosophy on how to imagine user/actor interaction...

TREAT USERS LIKE BABIES



TREAT USERS LIKE BABIES

The functionality of a project is very important and the easy part of our project was creating the functional tools and elements.

The difficult part came when creating restrictions for users.

Users will find everyway to cry, scream, and break any developed software thrown at them.

Its important to be thorough in restricting BABIES from hurting themselves

Similarly its important to funnel users to only specific functionalities in your program making your program more secure, intutive, and complete.



(USER)

LESSONS

PLAN PLAN PLAN

Working on a variety of **UML diagrams** throughout the course this semester showed how important it is to focusing on all elements of **software development** before hands-on development

Taking the time to plan made code implementation a much **quicker** process and allowed our team to **communicate effectively** through the *prototyping, specifying, designing, and implementing* our ***Information System Software***.

FINAL PROJECT PRESENTATION HAS ENDED

