

# **CSS 418**

# **REQUIREMENT**

# **AND DESIGN**

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# REQUIREMENTS

## INTRODUCTION

Below is a succinct required feature of a website developed for the sole purpose of Course Registration. This site represents a section of a Tertiary Institution's web page where each student self picks their courses necessary for participation for a required level of study. Furthermore, the prescribed site has the ability to restrict users from registration, else their fees are paid. This necessary feature ensures and enforces proper organization management, receipts, and logs and audits feature of a proper threat modelling.

Below therefore is the components of the site requirements.

## FUNCTIONALITY

- The site provides a user-friendly interface where each user can easily input their, email, student ID, and password.
- When authenticated, the site directs the user into a third-party application necessary for paying their tuition and other necessary fee.
- If successful payment has been made, the site redirects user to the course registration platform which consists of the course code, course title, and course unit.
- When necessary courses has been ticked; the website redirects the user to yet another page boldly showing their bio data, name, department, number, address, and the lists of courses they have ticked for confirmation.
- The site then takes the user to the final page after confirmation showing them a preview of their registered courses, and a provision to print out the document. When this is done, users can now logout.

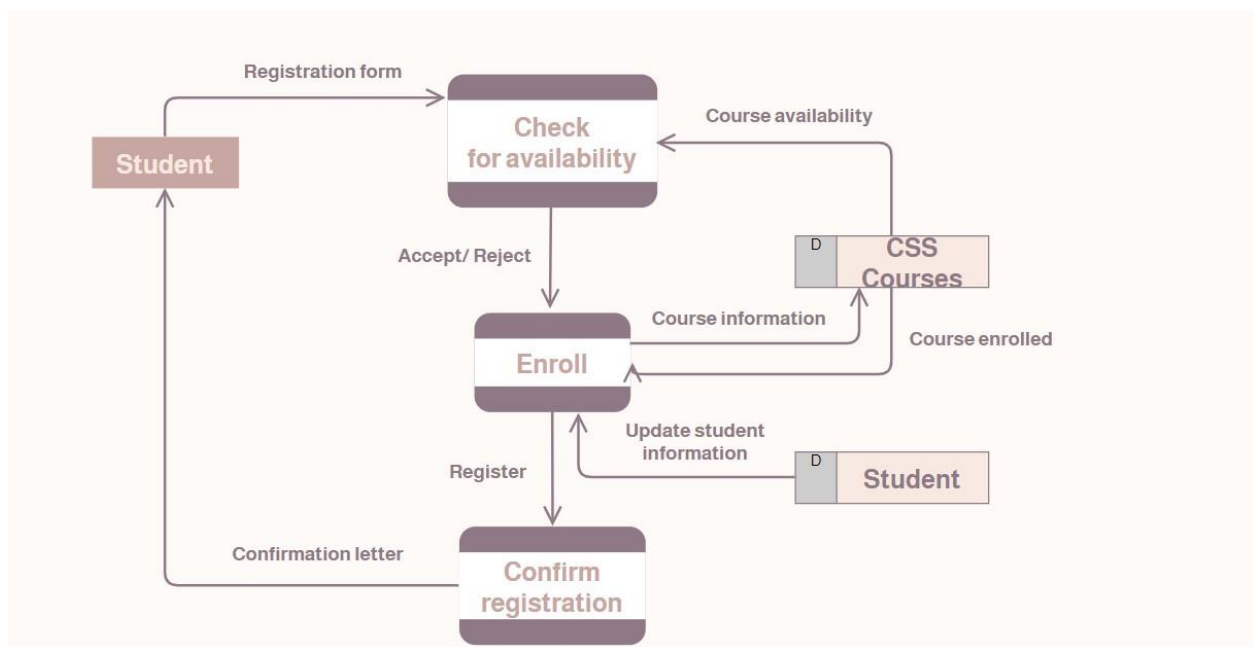
## SECURITY

- The site is built to allow only authenticated users access their courses

- The website possesses a two-factor authentication (2FA); Password authentication, and a security question.
- During payment, the system protects the user through the third-party payment platform to ensure monies don't go to the wrong place.

# DESIGN

An architectural design of the product (design)

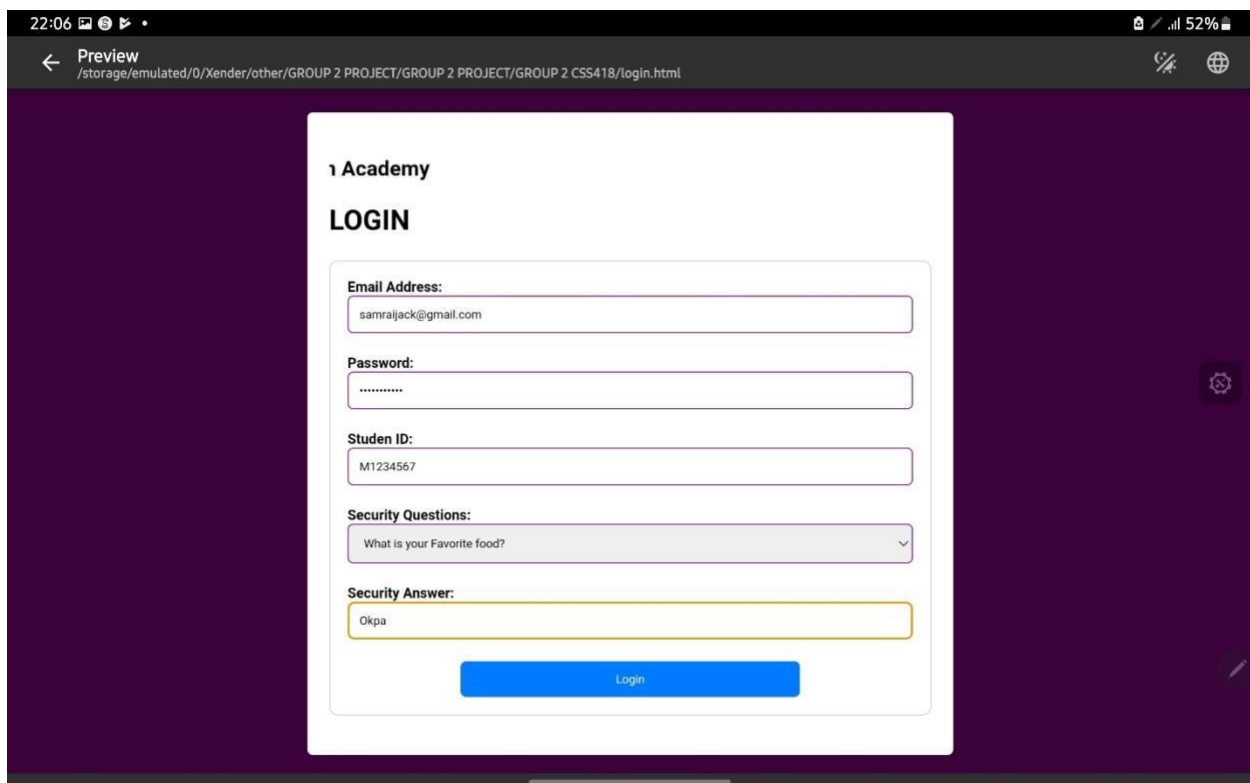


## LOGIN PAGE

This is the entry page of the website where two out of the AAAs are deployed, and they are authentication and authorization. The website begins with artistic welcome headers which prompts the user on what to do. In not to achieve a high level of Confidentiality, a two factor authentication (2FA) is implemented.

The first begins with a password which prompts the user to enter a minimum of 8 special characters and then followed by a required security question which double checks to authorize the user.

Finally, as a bid to ensure functionality and security to the design, the Student ID is used in stead of the matriculation number. This was because of 2 MAIN reasons; because of its level of secrecy over the matriculation number and because freshmen without an assigned matriculation number can assess their course registration platform if authenticated.

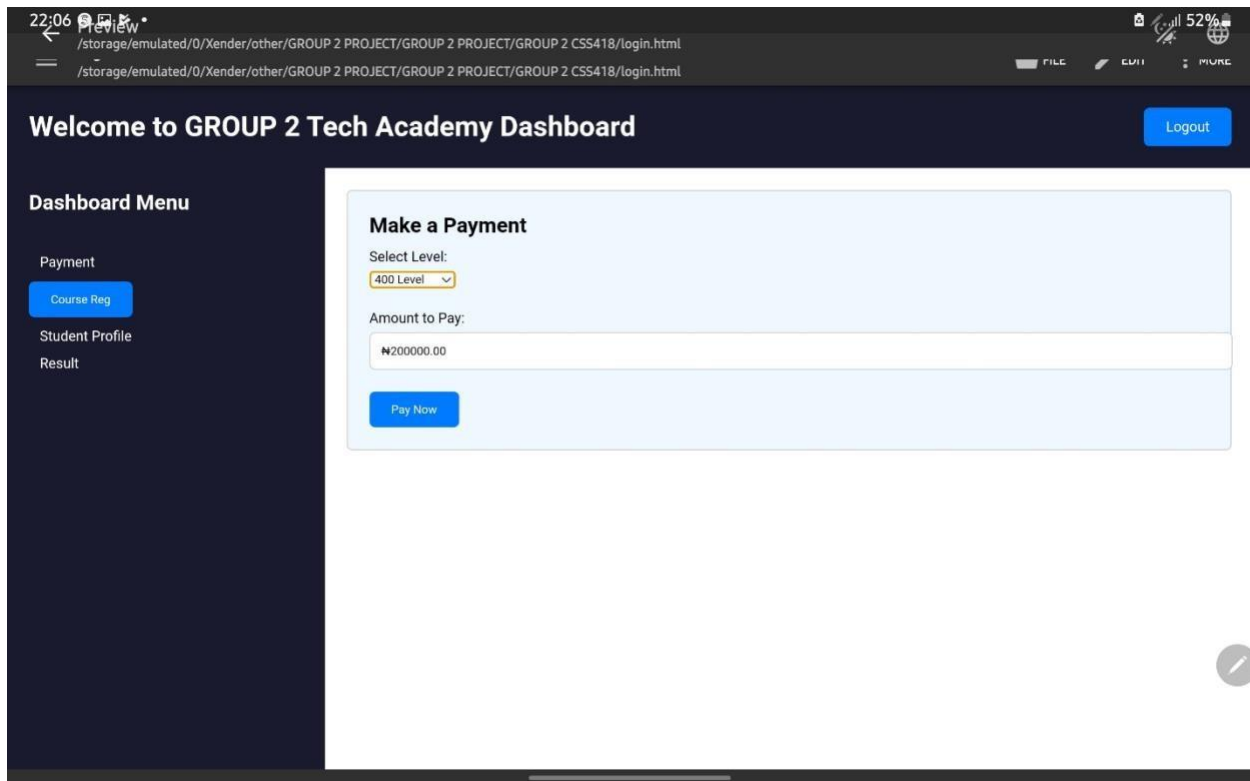


The screenshot shows a mobile browser interface with a dark purple background. At the top, the status bar displays the time 22:06, signal strength, and 52% battery. The browser's address bar shows a 'Preview' mode with a local file path. The main content is a white login form titled 'Academy LOGIN'. The form contains five input fields: 'Email Address' (with 'samrajack@gmail.com'), 'Password' (masked with dots), 'Studen ID' (with 'M1234567'), 'Security Questions' (a dropdown menu showing 'What is your Favorite food?'), and 'Security Answer' (with 'Okpa'). A blue 'Login' button is positioned at the bottom of the form. A settings gear icon is visible on the right side of the screen.

## PAYMENT PLATFORM

As a form of requirement, it was necessitated that payment of the University fees should be made before access to course registration is granted. The GROUP 2 website easily enforced this requirement by disabling the access to the registration link. When a user try to register a course without paying his fee, a pop up prompt informs him to “make payment before proceeding”.

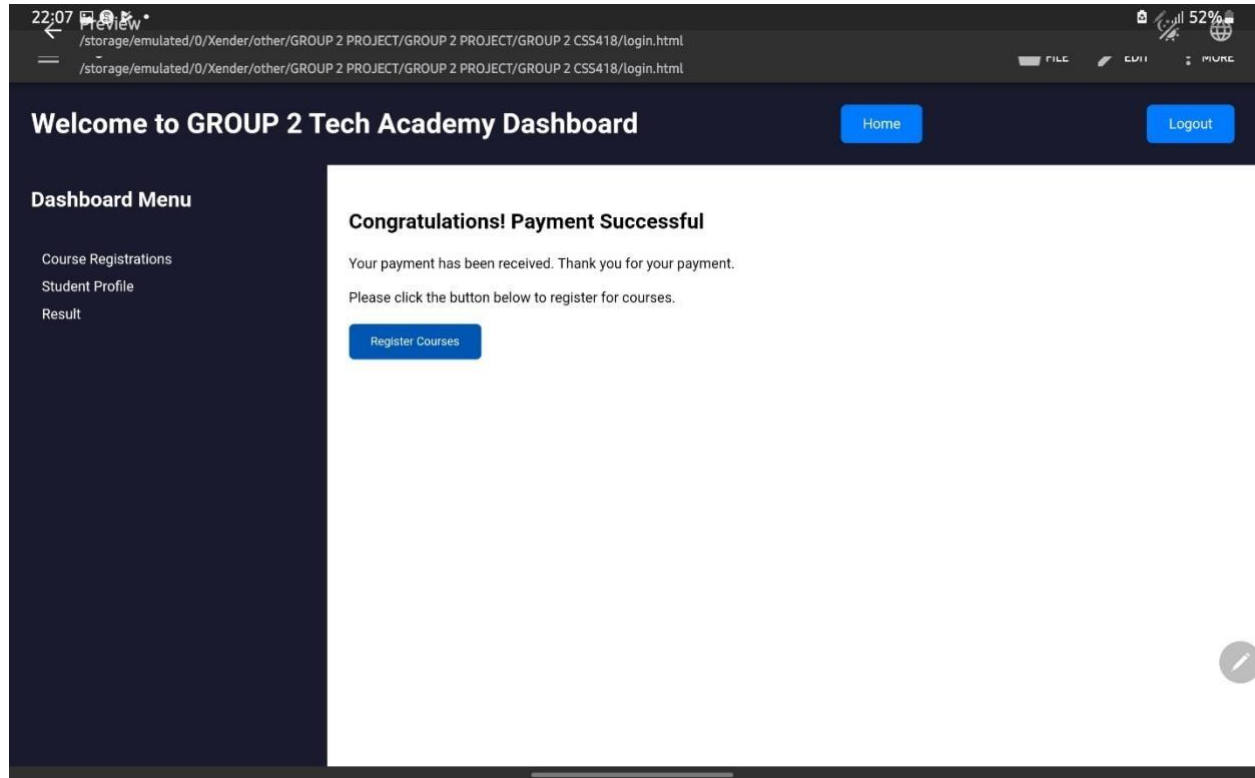
Furthermore, because of the change in fees with respect to different levels of study, the website disables all other select options and picks as default the current level of the user. This feature is a secure implementation of the payment platform



The screenshot displays a mobile application interface for the 'GROUP 2 Tech Academy Dashboard'. The top status bar shows the time as 22:06, signal strength, and a 52% battery level. The address bar indicates the URL: /storage/emulated/0/Xender/other/GROUP 2 PROJECT/GROUP 2 PROJECT/GROUP 2 CSS418/login.html. The dashboard header is dark blue with the text 'Welcome to GROUP 2 Tech Academy Dashboard' and a 'Logout' button. A dark blue sidebar menu on the left contains the following items: 'Payment' (highlighted with a blue bar), 'Course Reg' (with a blue button), 'Student Profile', and 'Result'. The main content area features a light blue box titled 'Make a Payment'. Inside this box, there is a 'Select Level:' dropdown menu currently set to '400 Level', an 'Amount to Pay:' field displaying '₦200000.00', and a blue 'Pay Now' button. A small circular icon with a pencil is visible in the bottom right corner of the main content area.

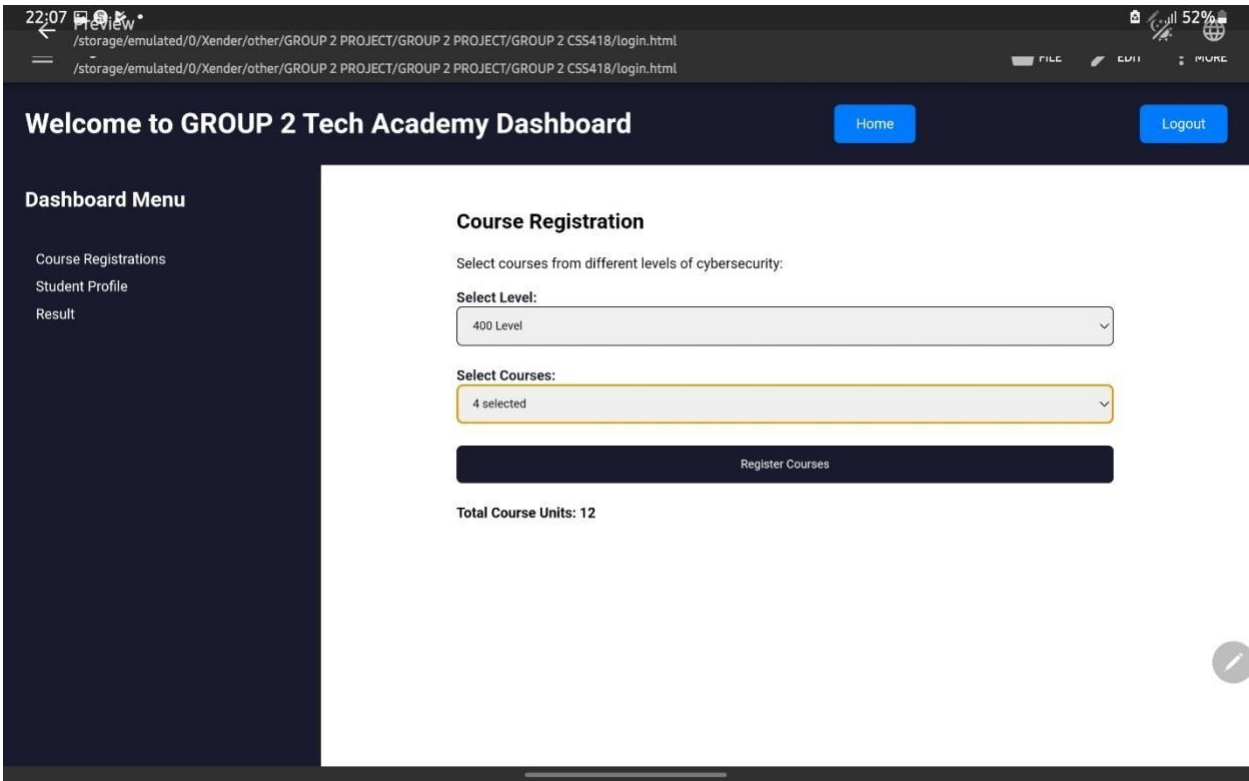
## CONGRATULATIONS PAGE

After one's fees are successfully paid, the congratulations page is generated for confirmation. When this page is reached, the assess to course registration is opened to allow the user access.



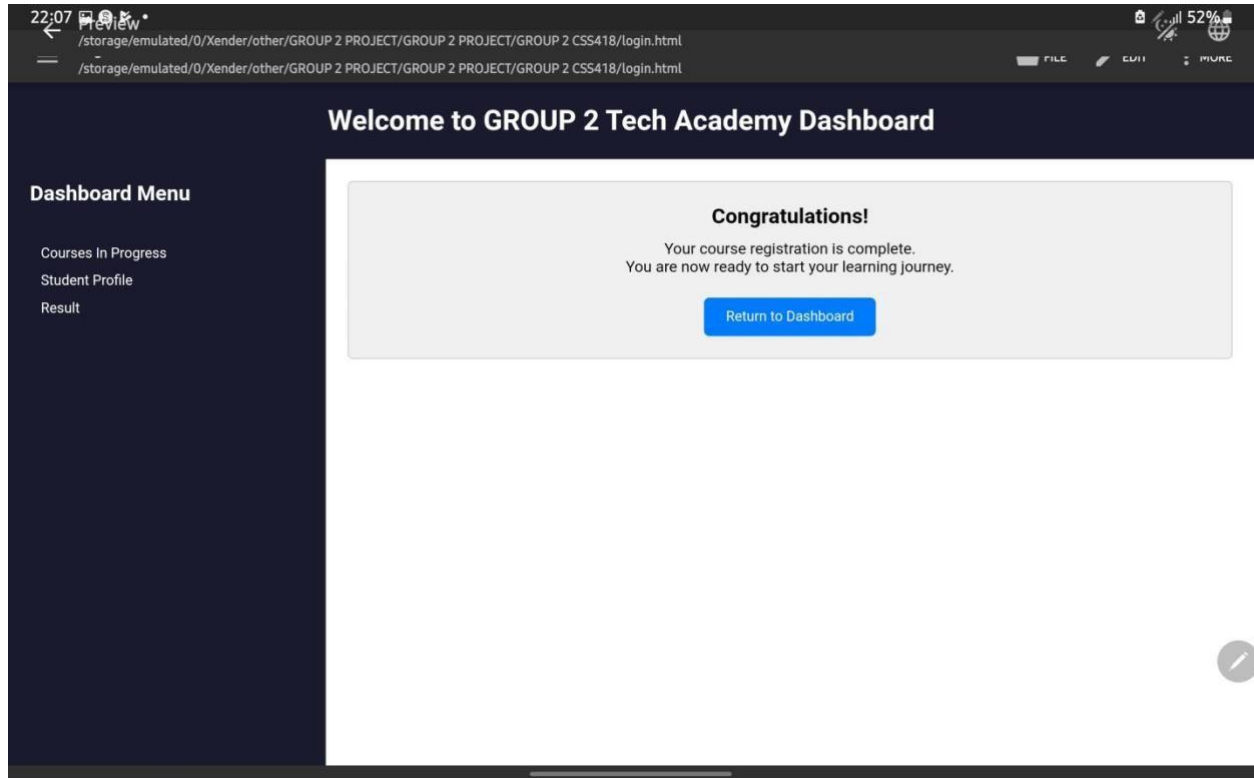
## COURSE REGISTRATION PAGE

For a hunch free course registration process, the website automatically sets to default the current level of the user in the option slots, and based on the application used to view the website, the site either automatically picks your required courses or prompts you to mouse tick the provided course by yourself. When this is successfully completed, the user may then be able to successfully register his course(s).



## CONFIRMATION PAGE

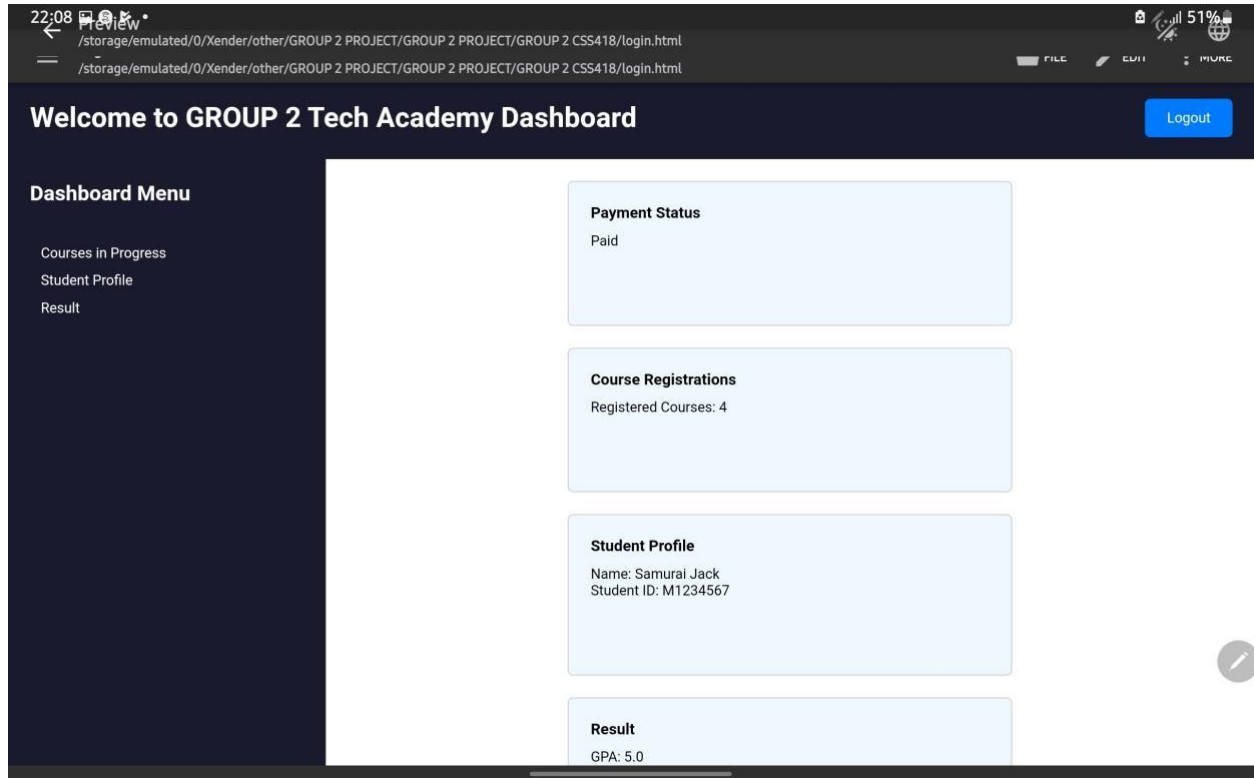
This page confirms and then sends a congratulatory message to the user stating a successful registration



## DASHBOARD (HOME)

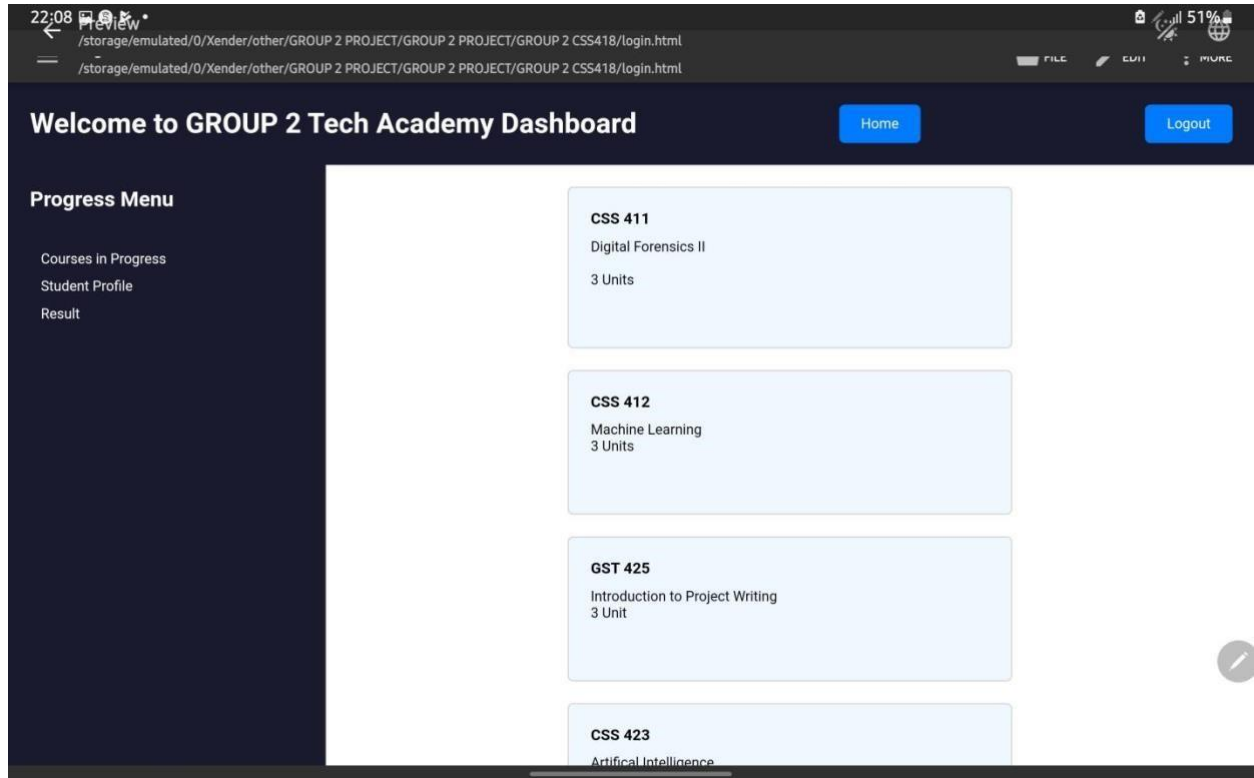
After a successful registration, the home page then activates consisting of a payment status (which is in this case paid), the user's student profile (name and student ID), present course(s) registered, and present CGPA





## PROGRESS MENU

This is an extra feature in the website that assists the user keep track of the progress made throughout the semester. The “progress menu” also consists of, and not limited to the course name, course title, and course unit.



## RESULT MENU

The result menu is a very distinct part of the website that includes all the results of the user since his inception into the Tertiary Institution. This page starts with a brief summary of the user's bio-data and then goes ahead to reveal results for each level of study

