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DCIT 205: MULTIMEDIA AND WEB DESIGN

INTERIM ASSESSMENT

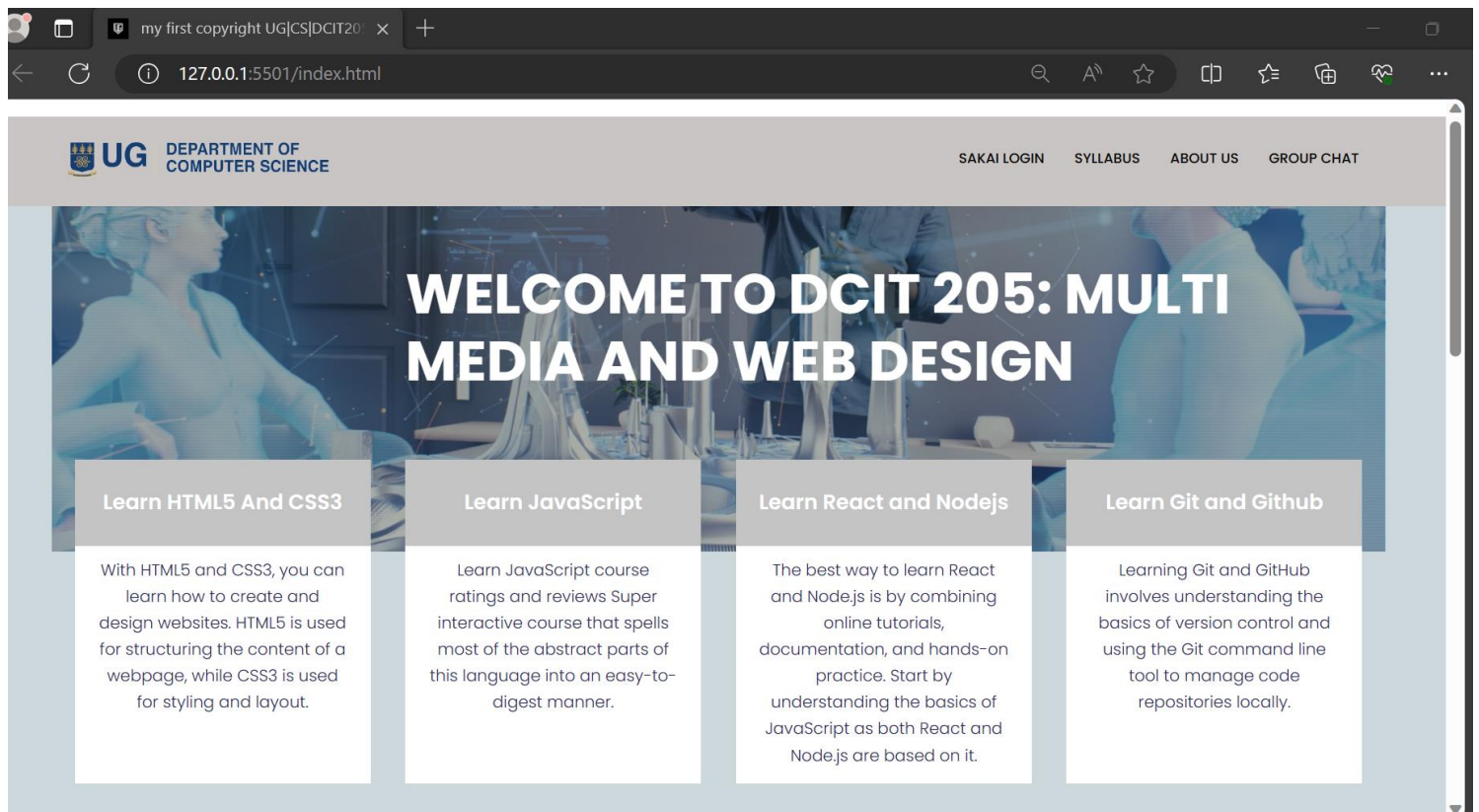
Welcome to our website under department of computer science we can learn DCIT 205: multimedia and web Design on it! Embark on a transformative journey into the realm of digital creativity with our flagship course, DCIT 205: Multimedia and Web Design. Whether you're a budding designer, a tech enthusiast, or someone eager to enhance their digital skills, you're in the right place.

Unlock the secrets of captivating design and seamless web development as we delve into the core principles and advanced techniques of multimedia creation. Led by industry experts, this course is crafted to empower you with the skills needed to bring your digital visions to life.

For my first steps I create a forked form https://github.com/Daquiver1/DCIT_205_IA and use git to initialize my project, used git add . for prepare all my change to be committed and create link local work and my repository on GitHub, then I pushed now and then. I also clone the main website by using WinHTTrack.

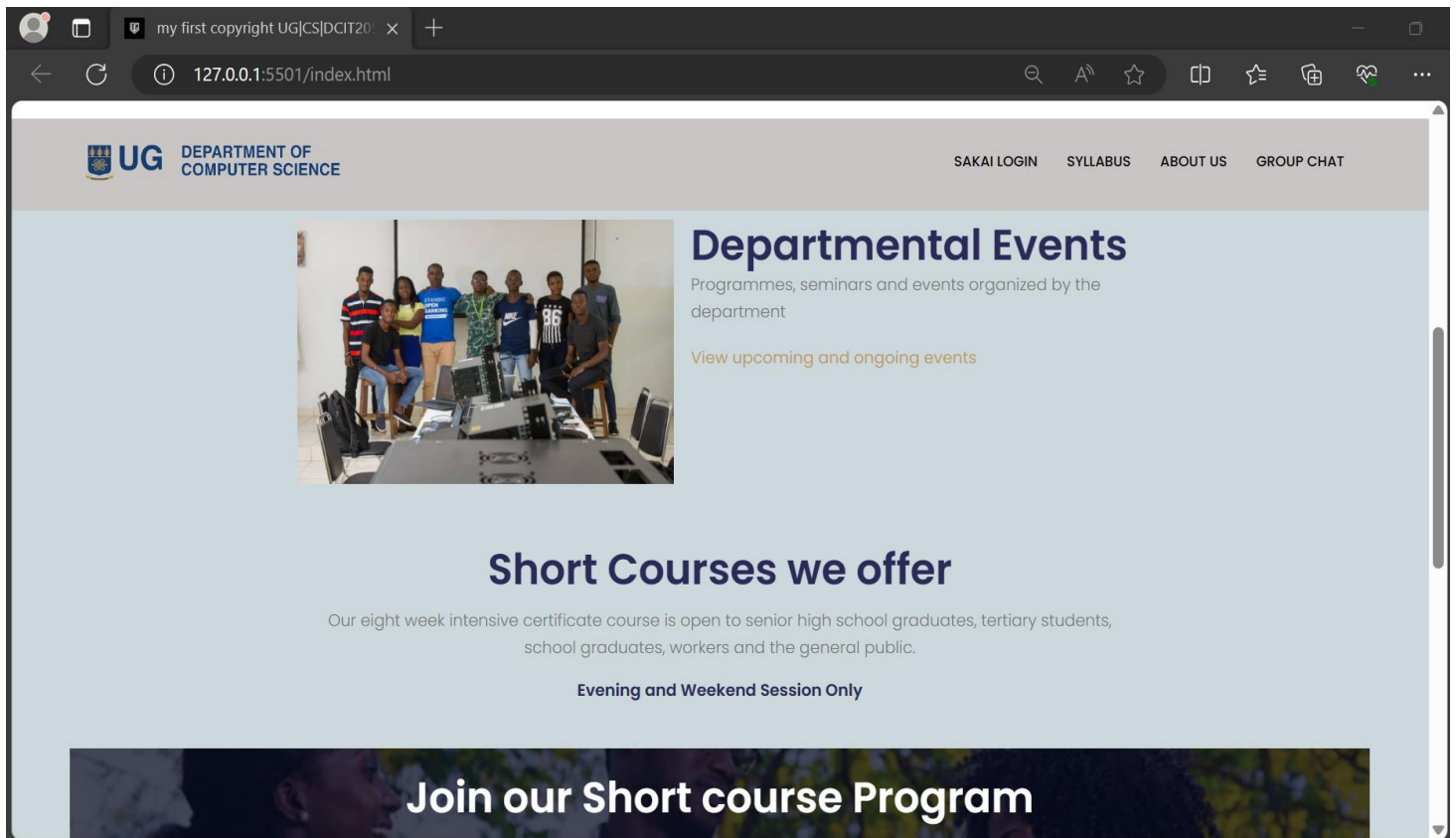
Let present a website step by step:

Our website starts by index.html is our main page:

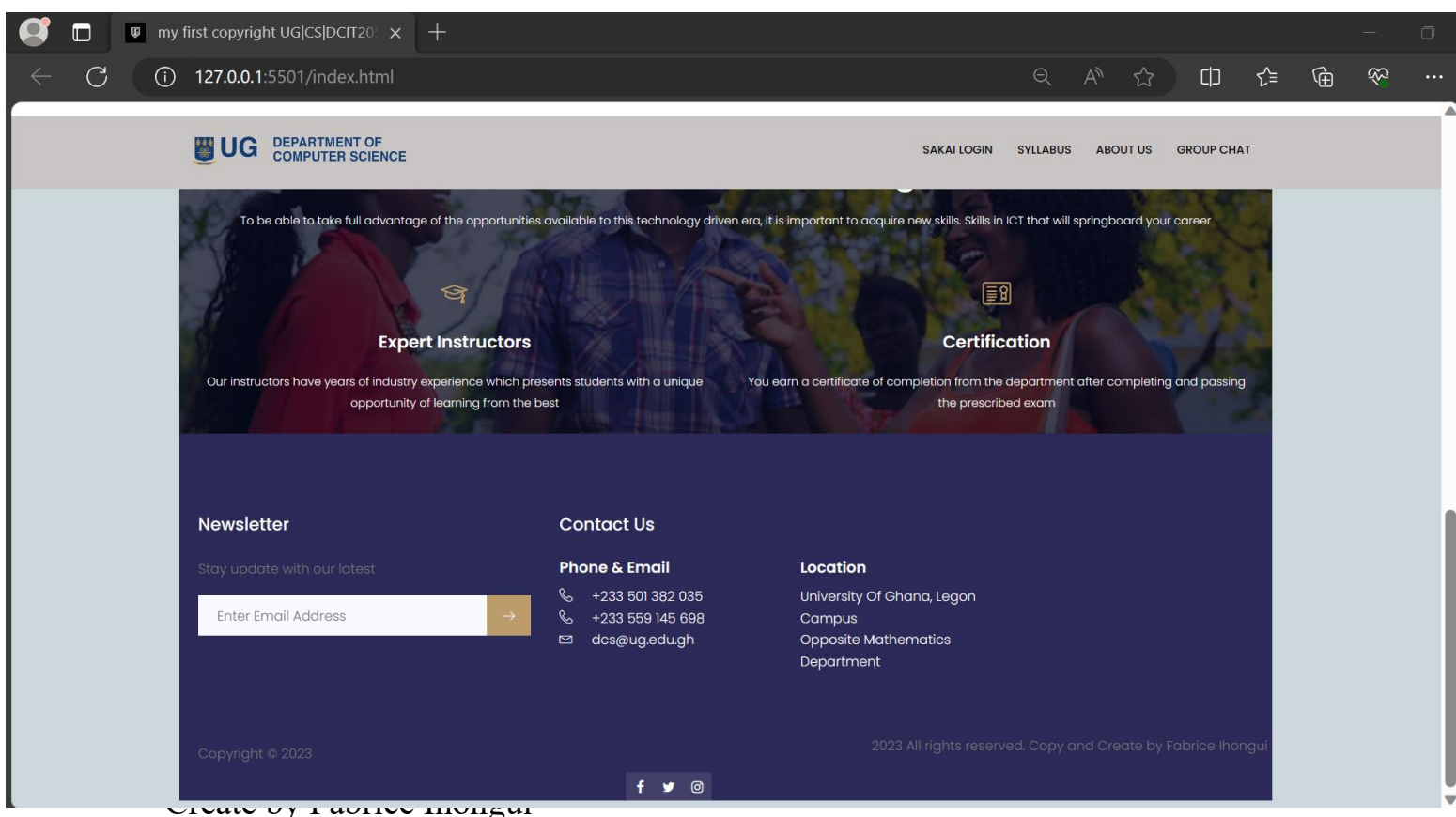


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To continue...




The footer of our website is:



We are done with the main page, inside nav we have different path for another services or option. Let see “SAKAI LOGIN” inside we can get access to you Sakai account directly via website:

Login Required

 UNIVERSITY
OF GHANA

user id

password

Log in

[Forgot your password?](#)

Then, if we want to get more information about the course we can check “SYLLABUS”:

DCIT 205 Syllabus

127.0.0.1:5501/htmlfolder/syllabus.html

DCIT 205: MULTI MEDIA AND WEB DESIGN

Course Lecture

- Lecture: Michael Agbo Tettey Soli
- Email: msoli@ug.edu.gh / agbotettey@gmail.com
- Office Location: Room 010, Ground Floor, Statistics Building
- Office Hours: Mondays 2:30 – 4:30, Thursdays 9:30 – 10:30
- Lecture Period: Mondays 7:30am – 9:20am (NNB2)

Course Overview

This course is intended to introduce students to web application development. It aims to provide students with an understanding of the core concepts and principles underpinning the operation of the web. Students would feel confident in their ability to design simple web-based systems from ground up using industry standard tools and technologies. This course delivers sound training in the latest web technologies that are relevant to build modern and feature-rich web applications. It provides insight into state-of-the-art web design practice and introduces emerging topics in web development such as package management and version control. Development of web-based systems have become an important part of software development and this course is intended to equip students with the requisite knowledge and skill. The concepts and principles covered in this course would provide a strong foundation for a successful career in web application development and software development in general.

Course objectives

This course is designed to achieve the following objectives

- Equip students with the knowledge of how the web works, focusing primarily on concepts and core principles.
- Introduce students to web technologies and how they fit into the vast ecosystem of the web.
- Teach students how to set up a computing environment for web application development, including IDE setup, configurations, plugins, and extensions, etc.
- Introduce students to version control as an integral part of web application development.

Learning Outcomes

At the end of the course, students should be able to

- Explain clearly with diagrams how the web works, demonstrating understanding of key web concepts such as DNS, domain names, internet, ISPs, TCP/IP, URLs, SSL, proxies and CDNs
- Build responsive websites that run on multiple devices with different screen densities and sizes using HTML/CSS/JavaScript.

Course Delivery Plan

- This course will involve lectures for theoretical understanding and online tutorial sessions for hands-on application. We have the discretion to administer impromptu quizzes prior to tutorials.
- Self-directed study and extensive research are essential components for proficiency in web application development. A minimum of 12 additional hours per week for practice is strongly advised.
- Proactive learning is encouraged; students are expected to prepare ahead of class. This preparatory work will be evaluated through periodic quizzes administered before each session.

Lecture Plan

The following plan gives details of the broad topics that will be covered with appropriate references where applicable. Resources would be shared with students, including video lessons on the broad topics.

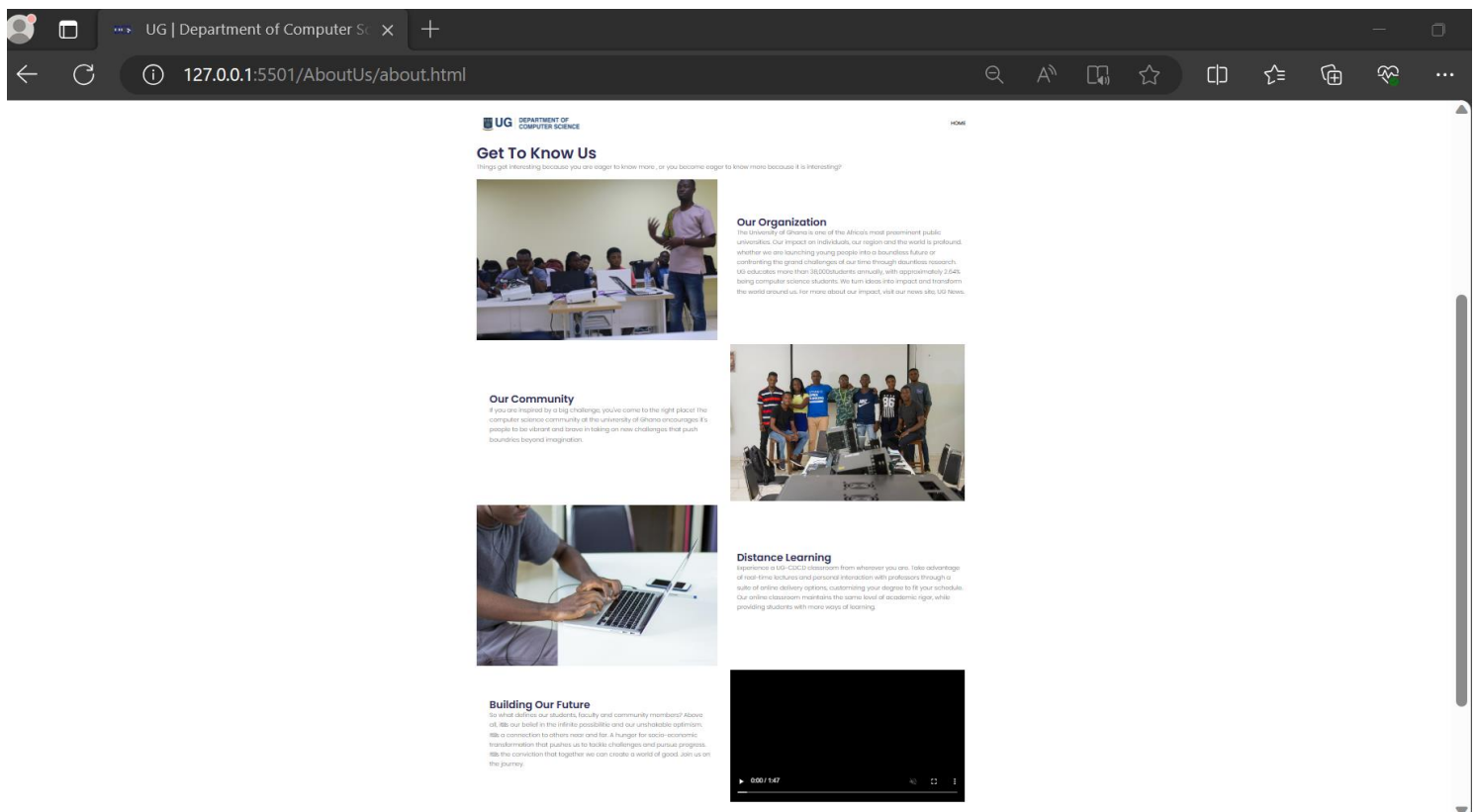
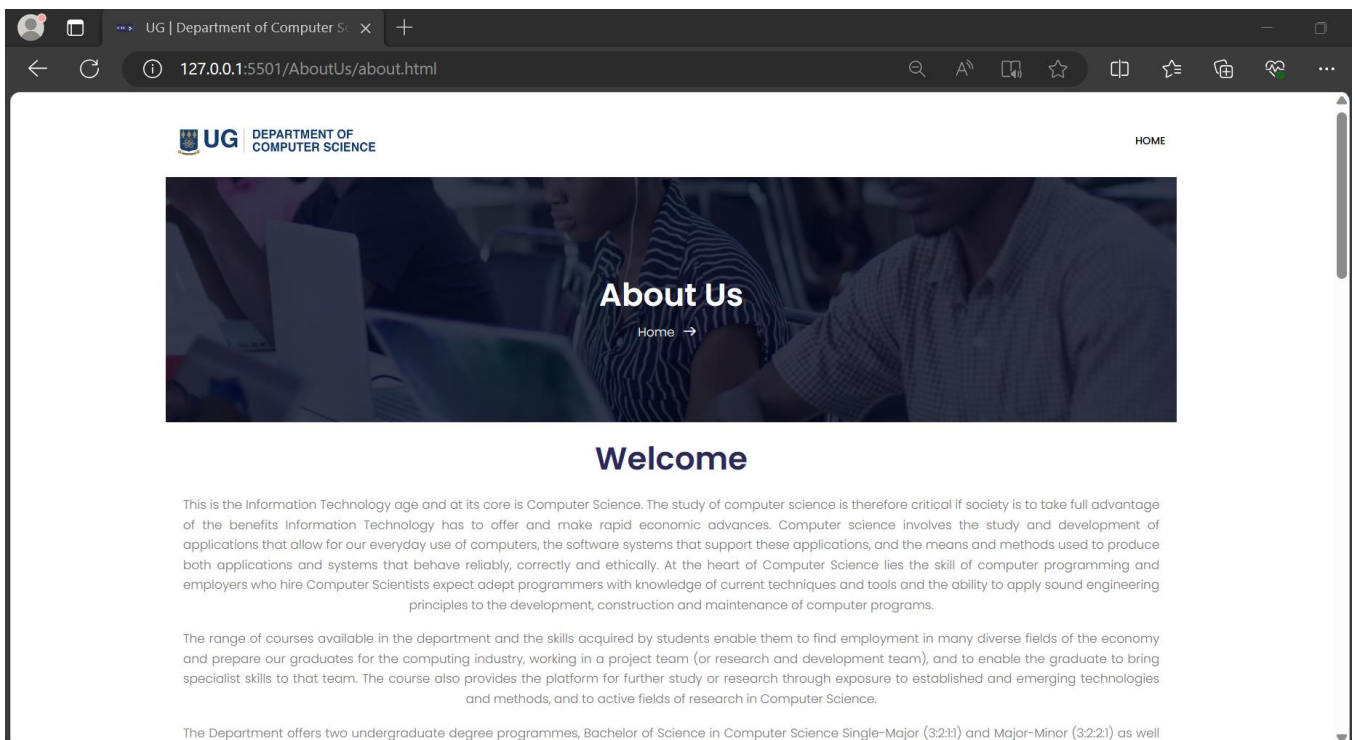
Week	Broad Topics	Activity
Week 1	Fundamentals of the Web: The Internet, TCP/IP, DNS, HTTP, DOM, Architecture of the Web	Submit a 4 Page report on how the web works
Week 2	Web Authoring Technologies HTML, CSS and JavaScript (Part 1)	
Week 3	Web Authoring Technologies HTML, CSS and JavaScript (Part 2)	
Week 4	Web Authoring Technologies HTML, CSS and JavaScript (Part 3)	
Week 5	Introduction to version control using Git	Create a 7 Page website of your choosing, and upload to a github repo.
Week 6	Introduction to React	
Week 7	Building Frontend Applications with React	Build the Frontend for a missing grade reporting
Week 8	Introduction to NodeJS	
Week 9	Data Persistence using MongoDB	
Week 10	Building Backend Applications using NodeJS	Build the Backend for a missing grade reporting system - Submit Github Link
Week 11	Consuming REST APIs from React & React Native Applications	Integrate Backend with Frontend and submit.
Week 12	Application Deployments	Deploy application. - Submit deployed link.
Week 13	Revision Week	

Plagiarism Policy

Plagiarism in any form is unacceptable in the University of Ghana and shall be treated as a serious offence. Any assignment with a plagiarism score of 10%+ will be automatically awarded a mark of zero. Appropriate sanctions as stipulated in the university's Plagiarism Policy, will be applied when students are found to be in violation.

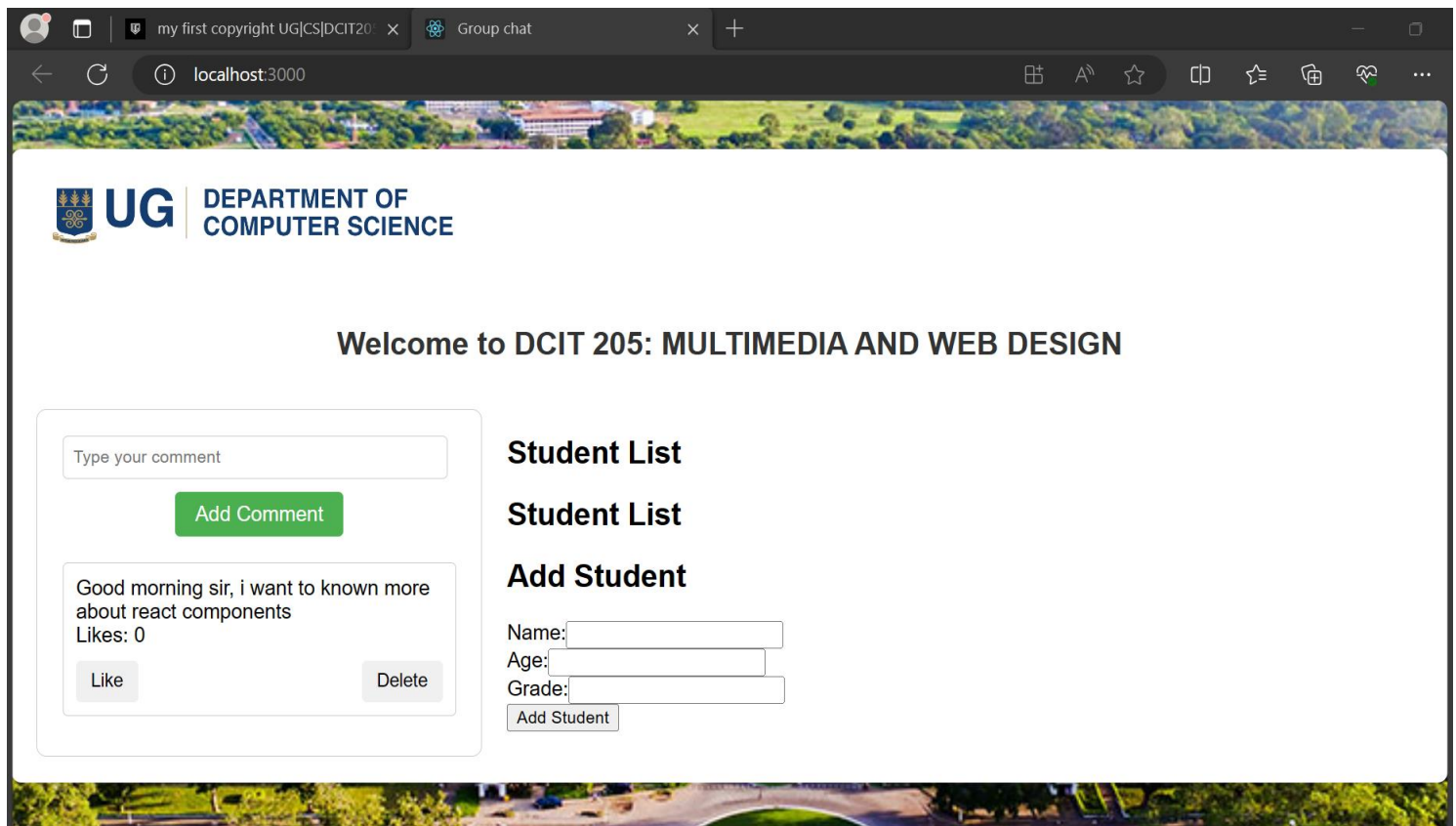
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If we want to get more information abouts Computer Science Department click on “About Us”:

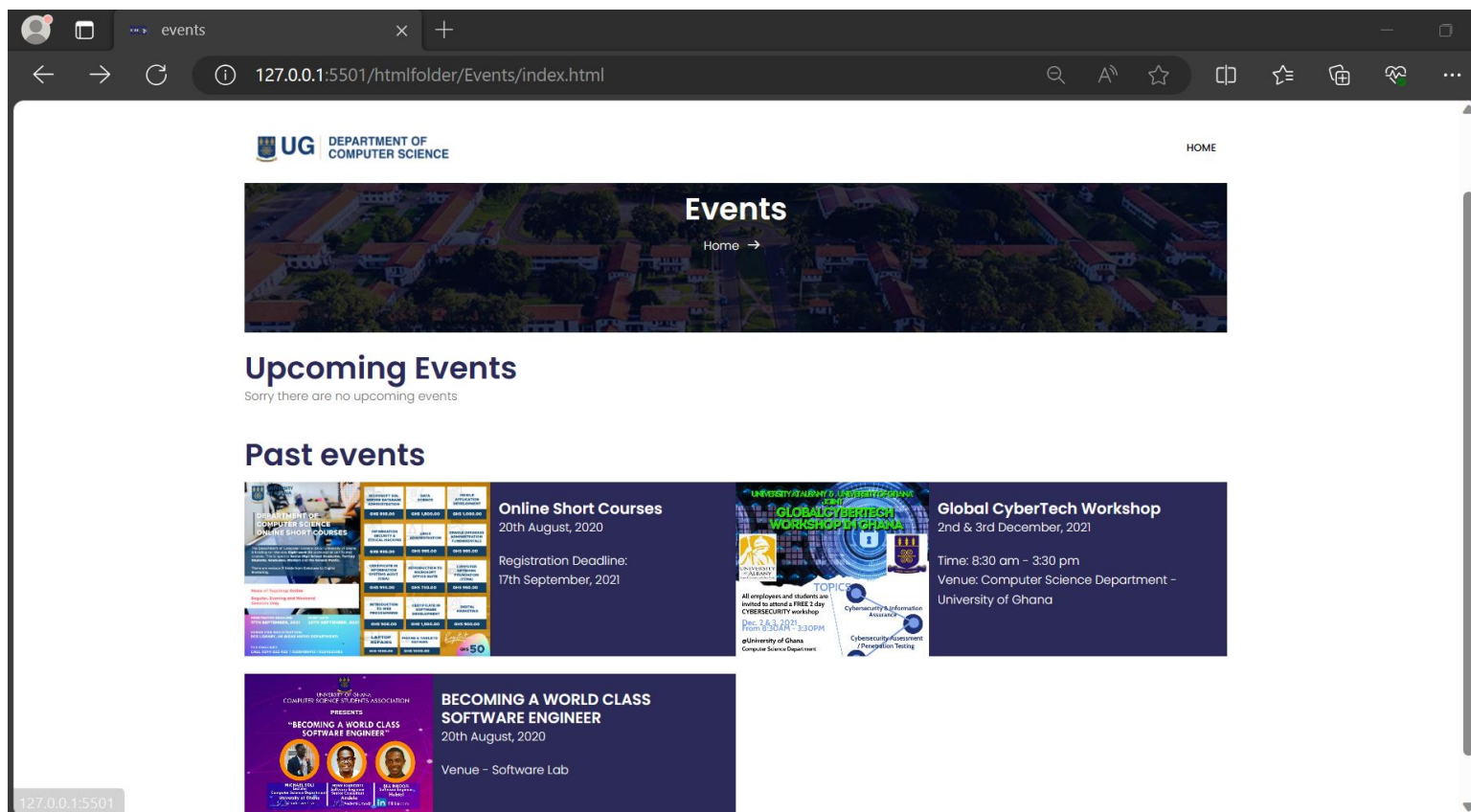


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Inside group chat, student should be able to create a comment and add own information: this page helps more interaction with lecturer and students.

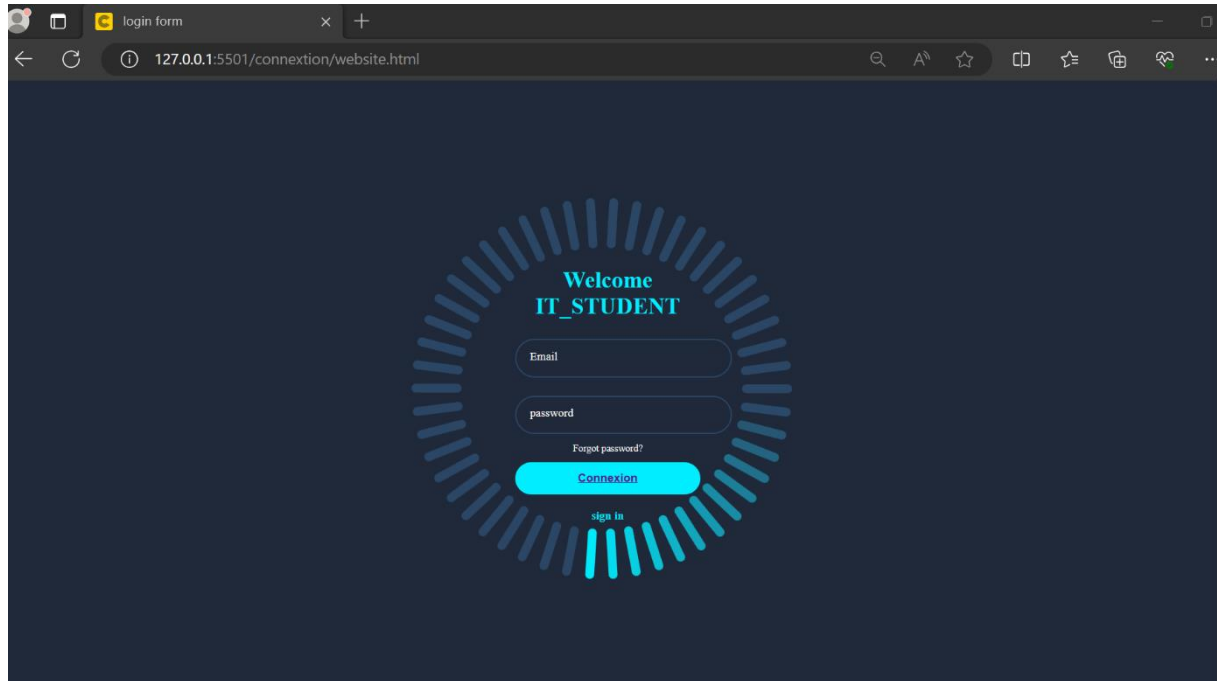


Our website can also, show event inside Computer Science department just click on “View upcoming and ongoing events” :

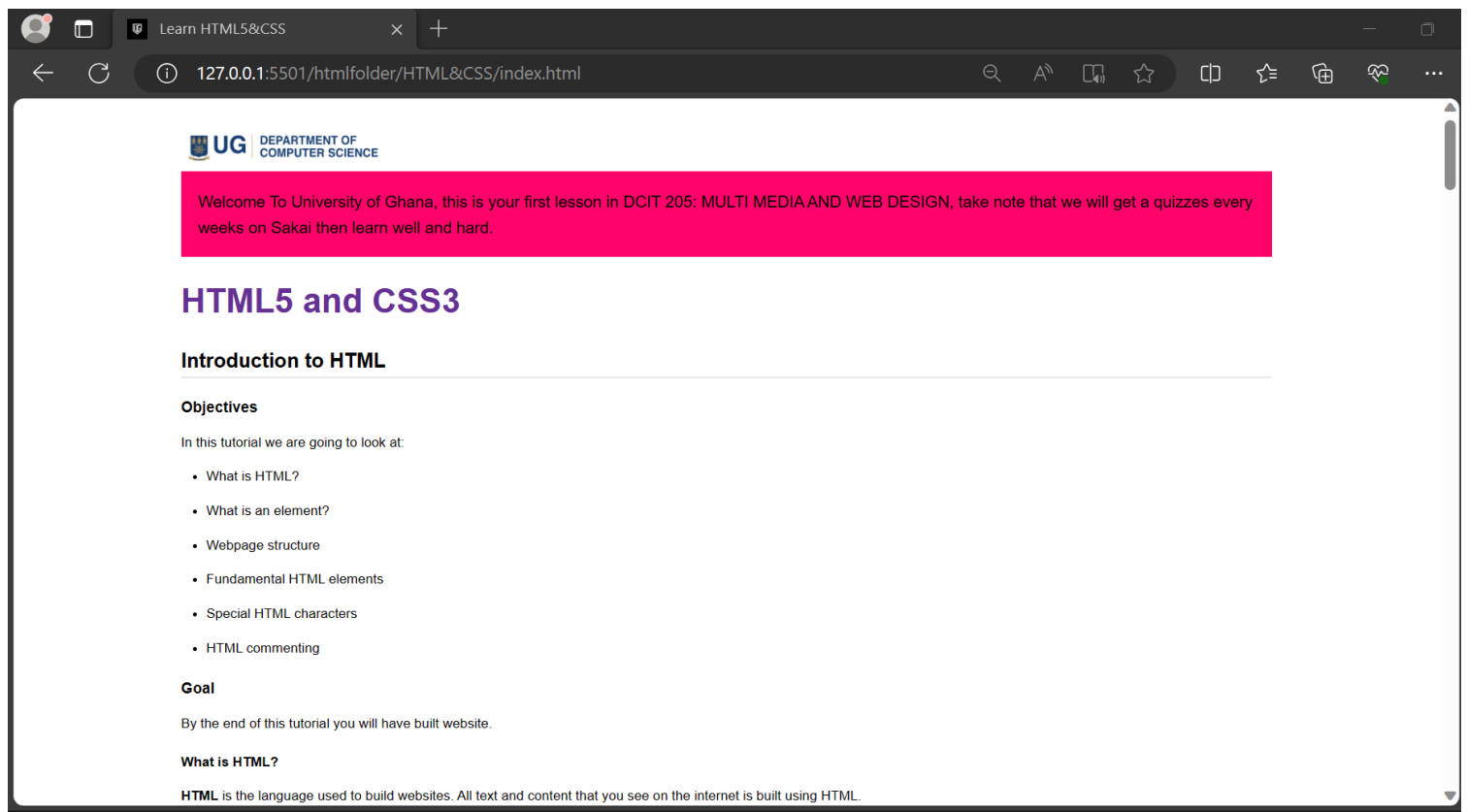


So, let going in the main propose of our website, in this website we can learn HTML5 and CSS3:

Before anything we are supposed to field a form and connect with your email Student and password as follows:

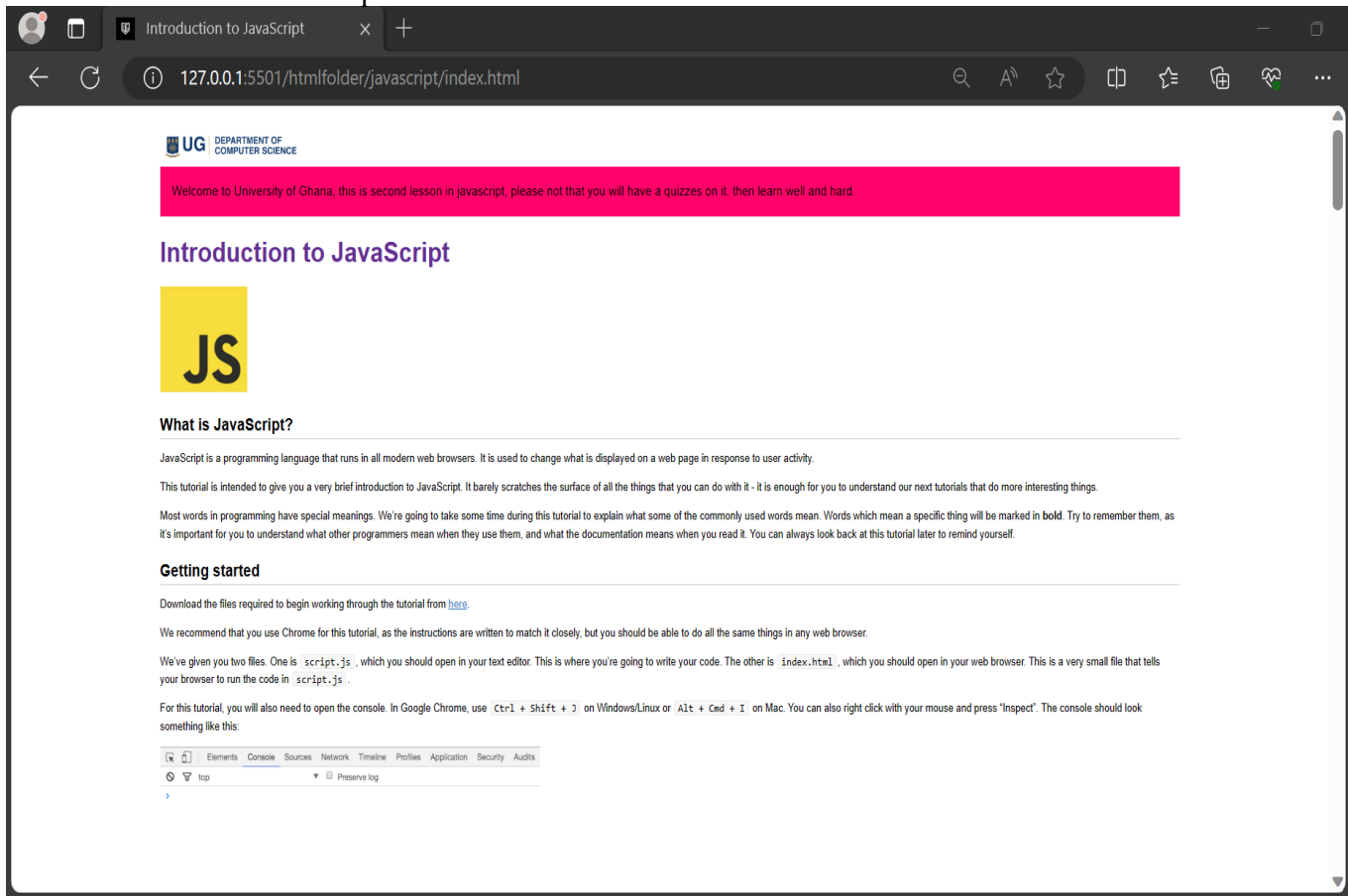


You can learn HTML5 and CSS3:



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We can learn JavaScript:




The screenshot shows a web browser window with the title "Introduction to JavaScript". The address bar displays the URL "127.0.0.1:5501/htmlfolder/javascript/index.html". The page content includes a header for the "UG DEPARTMENT OF COMPUTER SCIENCE", a pink welcome message, a main heading "Introduction to JavaScript" with a yellow "JS" logo, and sections titled "What is JavaScript?" and "Getting started". The "Getting started" section includes instructions on how to run the code and a screenshot of a browser's developer console.

UG DEPARTMENT OF COMPUTER SCIENCE

Welcome to University of Ghana, this is second lesson in javascript, please not that you will have a quizzes on it. then learn well and hard.

Introduction to JavaScript



What is JavaScript?

JavaScript is a programming language that runs in all modern web browsers. It is used to change what is displayed on a web page in response to user activity.

This tutorial is intended to give you a very brief introduction to JavaScript. It barely scratches the surface of all the things that you can do with it - it is enough for you to understand our next tutorials that do more interesting things.

Most words in programming have special meanings. We're going to take some time during this tutorial to explain what some of the commonly used words mean. Words which mean a specific thing will be marked in **bold**. Try to remember them, as it's important for you to understand what other programmers mean when they use them, and what the documentation means when you read it. You can always look back at this tutorial later to remind yourself.

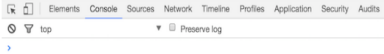
Getting started

Download the files required to begin working through the tutorial from [here](#).

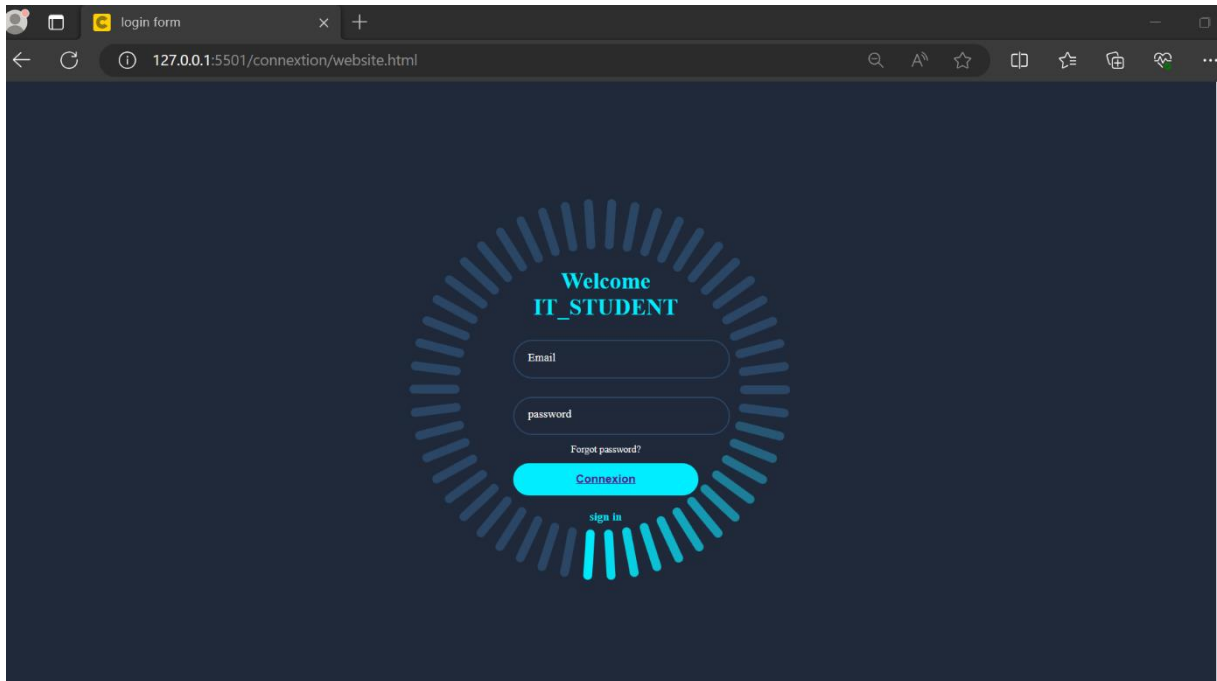
We recommend that you use Chrome for this tutorial, as the instructions are written to match it closely, but you should be able to do all the same things in any web browser.

We've given you two files. One is `script.js`, which you should open in your text editor. This is where you're going to write your code. The other is `index.html`, which you should open in your web browser. This is a very small file that tells your browser to run the code in `script.js`.

For this tutorial, you will also need to open the console. In Google Chrome, use `Ctrl + Shift + J` on Windows/Linux or `Alt + Cmd + I` on Mac. You can also right click with your mouse and press "Inspect". The console should look something like this:



We can learn also React and NodeJS, don't forget that for every lesson we could login before we can get access:



To be continue...

message endpoint in a browser

At this point we have our server running on port 5501, and our frontend application running on port 5501. We will now connect the frontend application to the backend application.

Step 2: Connect React with Node.js

Open the app.js file in the src folder and then replace the code with the following code:

```
import React, { useState, useEffect } from 'react';
import './App.css';

function App() {
  const [message, setMessage] = useState('');

  useEffect(() => {
    fetch('http://localhost:5501/message')
      .then(res => res.json())
      .then(data => setMessage(data.message));
  }, []);

  return (
    <div className="App">
      <h1>Hello from server!</h1>
    </div>
  );
}

export default App;
```

Let's go through the code.

First, we are importing `useState` and `useEffect` from the `react` module. We are using `useState` to create a state variable `message` and `useEffect` to call the API when the component mounts.

Inside the `useEffect` block, we are calling the API using `fetch()` and setting the response to the `message` state variable. To read more about `fetch()` visit the [Mozilla docs](#).

Now that we have passed an empty array as the second argument to `useEffect`, `hook` is a `useEffect` parameter which will make sure that `useEffect` `hook` is called only once when the component mounts.

Now, we are rendering the `message` state variable in the `h1` tag.

Open your browser and visit `http://localhost:5501` where you will see the message "Hello from server!" on the screen.

to the endpoint /message request

response "Hello from server!"

The final react app connected with the backend

Here is the overview of the project structure:

Frontend (React) Backend (Node.js)

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Finally, inside our application we can learn Git and GitHub on it just click where you see “learn Git and GitHub” and you will get this page:

UG DEPARTMENT OF COMPUTER SCIENCE

GitHub and Git Tutorial for Beginners

A beginner's tutorial demonstrating how Git version control works and why it is crucial for data science projects.

git

Git Tutorial for Beginners

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For this project I get more knowledge, everybody knows that we are a new generation of artificial intelligence, then I can say, ChatGPT 3.5 and 4, charle.io and more other AI help me in this project, I learn how I can fork a public repository and clone it in my local workplace, how we use git with several commands. I learned how we can make a pull request. I learned React JSX, react components, react props, react Render react Hook, I never forget some CSS and html I learned in this project,

Thank you, for this project we hope that we can get a nice grade.