

# WAPH-Web Application Programming and Hacking

**Instructor:** Dr. Phu Phung

## Individual Project 1

**Front-end Web Development with a Professional Profile Website on github.io cloud service**

### Student

**Name:** Sai Keerthi Vadnala

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**Short-bio:** Sai Keerthi Vadnala has great interest in learning web development and wants to explore more about it by doing hands-on projects.

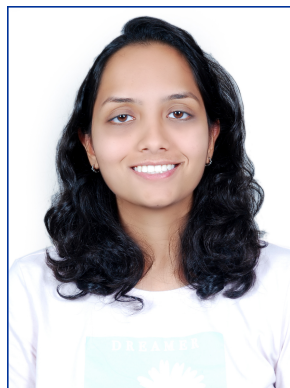


Figure 1: Sai Keerthi vadnala headshot

## Overview and Requirements

- This project focuses on enhancing front-end web development skills through the creation and deployment of a Professional Profile Website on GitHub's cloud service, github.io.
- The project encompasses general, non-technical, and technical requirements.

## Repository Information

Repository's URL: <https://github.com/Saikerthi72/>

This is a private repository for Sai Keerthi Vadnala to store all code from the course.

## Individual Project 1

- Individual Project 1: Front-end Web Development with a Professional Profile Website on github.io cloud service.

### General requirements

- I have developed and deployed a personal website showcasing a professional profile, including essential details such as name, headshot, resume, contact information, educational background, experiences, and skills.
- Firstly, I have created a repo and added file named waph.html which contains the course contents.
- Next, I have created another html page named index.html, here I have used bootstrap to create a responsive web page and I have created a div element named 'container-fluid'.
- I have created a side bar, which contains my headshot, email, birthday, location, resume, linkedin, github, waph course details.
- The resume link contains a 'href' tag and redirects to resume document.
- In the class 'main-content', I have created a navbar with different list items like: About, resume, projects, blog, contact details.
- In the About page, I have included what domains I'm interested, and I have created all these in a separate section with class name 'service', within that I have created different lists for each domain.
- In Resume page, I have included education, experience and skills details. For this I have created a separate article class named "resume", within that I have created separate lists for each section.
- Below is the screenshot of this task, (Fig. 2,3,4,5).
- I have created a link to a new dedicated HTML page named 'waph.html' to introduce the "Web Application Programming and Hacking" course contents, listed down the labs, hackathons and projects.
- To create the link I have used 'a href' tag.
- Below is the screenshot of this task, (Fig. 6,7).

### Non-technical requirements (20 pts)

- I have used an open-source CSS framework Bootstrap.
- I followed the template idea presented by abhindu to develop my personal portfolio.
- Below is the screenshot (Fig. 8).
- Here we embed a flag counter into a webpage, which provides visual tracking of visitor counts (pageviews). The 'div' element acts as a container, enclosing the Flag Counter represented by the 'img' tag. The 'a' tag wraps

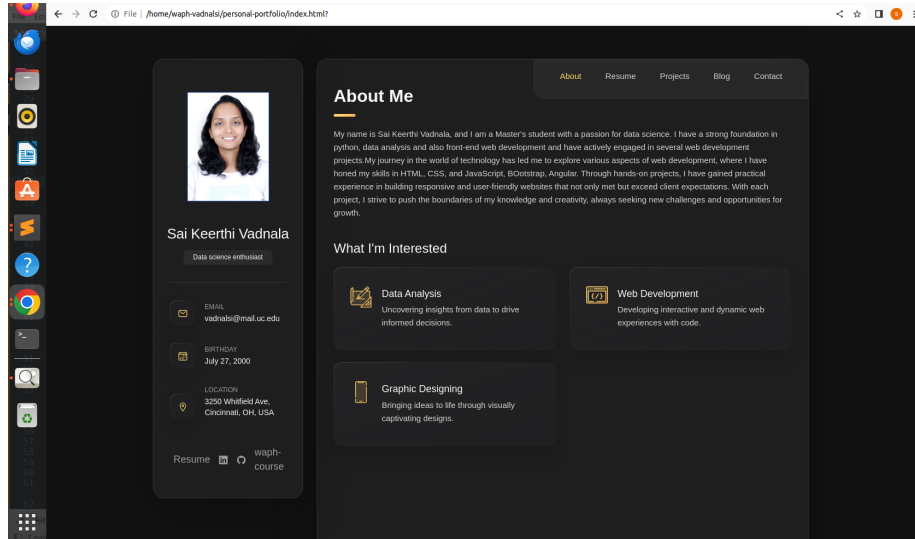


Figure 2: Displays the web page

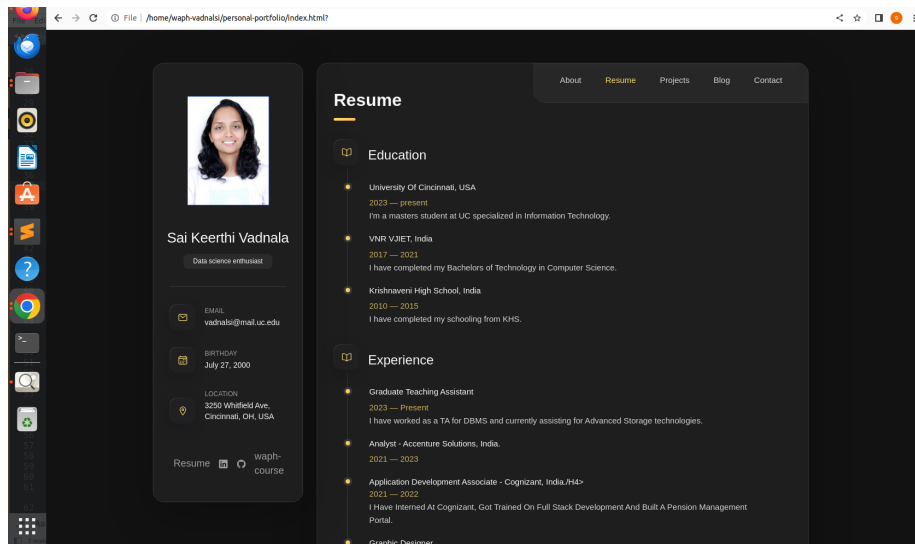


Figure 3: Displays education, experiences page

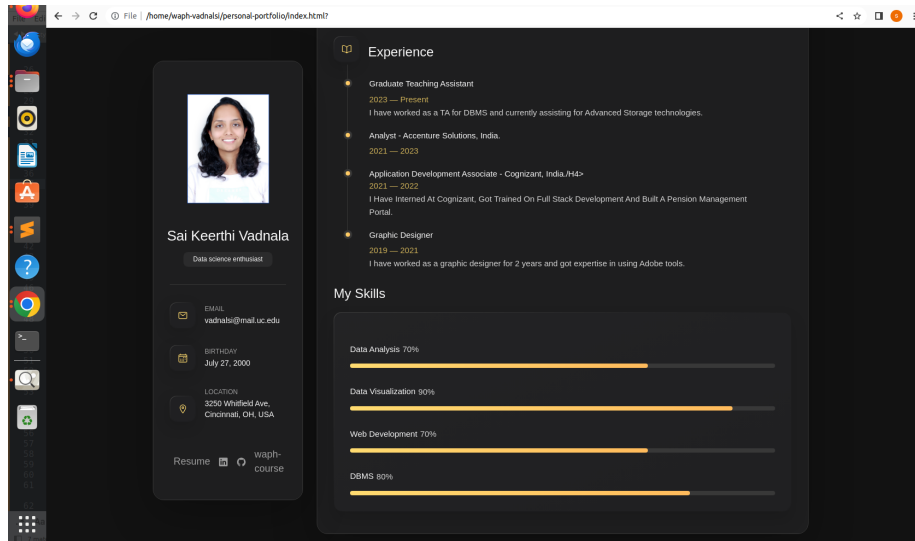


Figure 4: Displays skills page

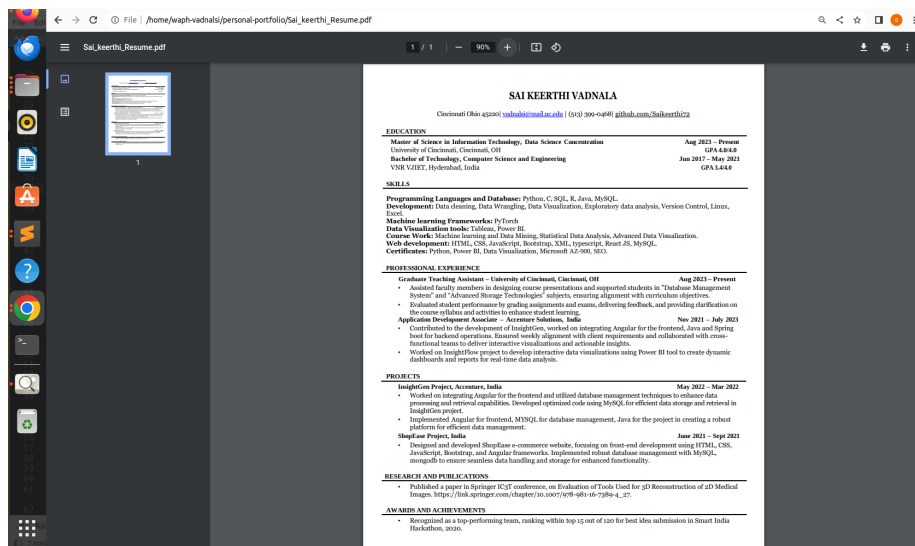


Figure 5: Displays resume page

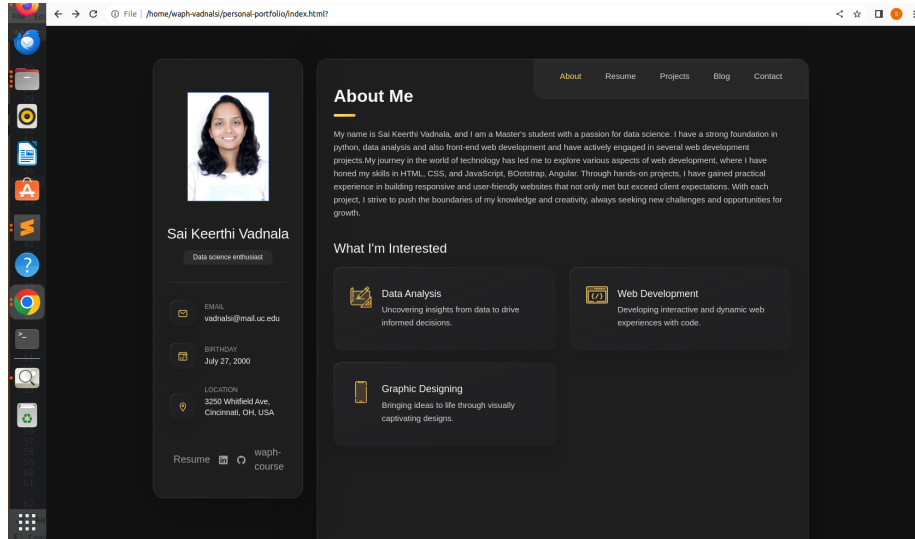


Figure 6: Displays waph-course link

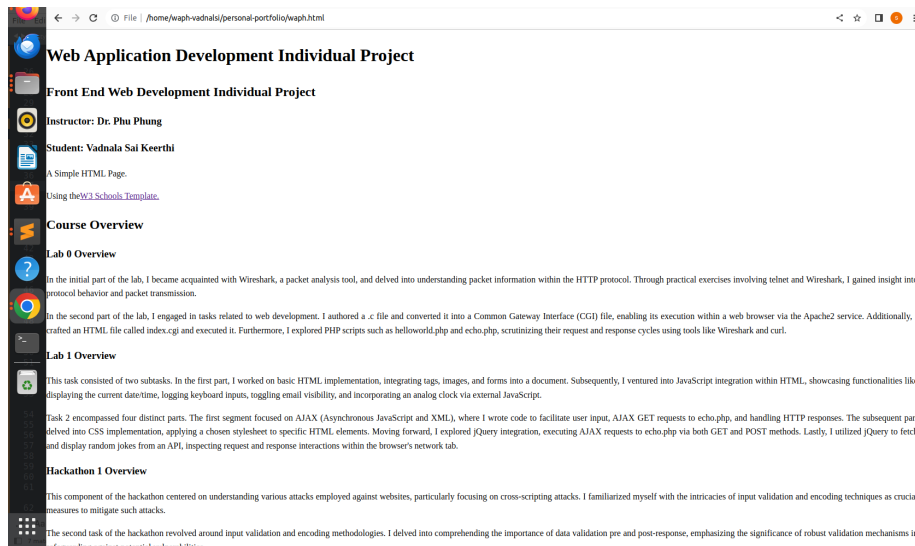


Figure 7: Redirecting to waph-course html page

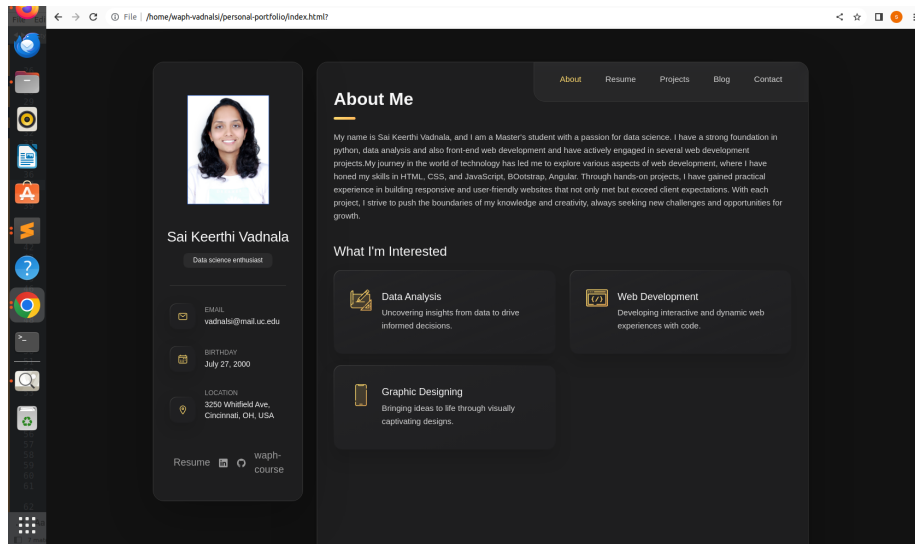


Figure 8: Displaying adding of bootstrap

the image, creating a hyperlink that redirects users to the Flag Counter website when clicked.

- Below is the screenshot of the code and output of the task, (Fig. 9,10).

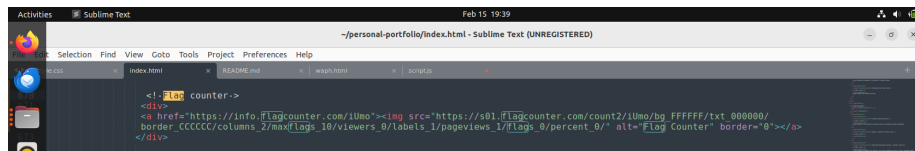


Figure 9: Flag counter code snippet

## Technical requirements

### Basic JavaScript code

- I have implemented show date(), analog clock, digital clock, show/hide your email functionalities.
- In show date(), I have created a 'div' element with the id "date", when clicked, it triggers the inbuilt JavaScript function to update the content of the 'div' with the current date and time.
- Below is the code snippet for show date(), (fig. 11).
- In analog clock, I setted up a canvas element for analog clock, it includes a script tag to link an external JavaScript file for clock functionality. The JavaScript code initializes the clock by getting the canvas context, setting



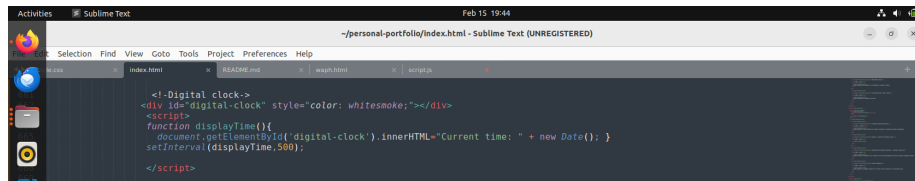


Figure 13: Digital clock code snippet

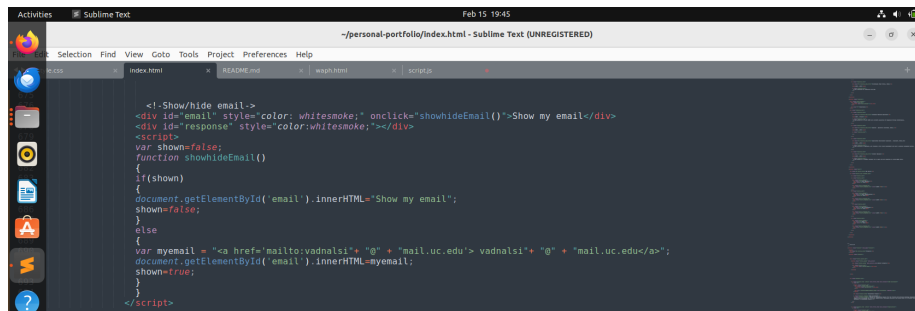


Figure 14: Show/hide email code snippet

- Output for all these JS and JQuery functionalities is shown in the below screenshot, (fig. 15).

### Angular functionality

- I have used AngularJS to dynamically render a sections to present “My Certifications.” It employs the ng-repeat directive to iterate over an array of certification objects, dynamically generating content for each certification entry based on its name, description, issuer, and date.
- The AngularJS controller, named ‘CertificationController’, serves as a intermediary. Within this controller, an array named ‘\$scope.certifications’ is initialized, representing various certifications. Each object encapsulates essential information including certification’s name, description, issuer, and issuance date.
- By associating the ‘CertificationController’ with the ‘portfolioApp’ module, the controller establishes the data-binding.
- Below is the code snippet and output for angular functionality, (fig, 16,17).

### Two public Web APIs integration

- This JavaScript code fetches a joke from the JokeAPI and displays on the webpage. It uses jQuery’s ‘\$.get()’ method to make an asynchronous GET request to the specified URL, which returns a single programming joke. Upon receiving the response, the anonymous callback function is executed,



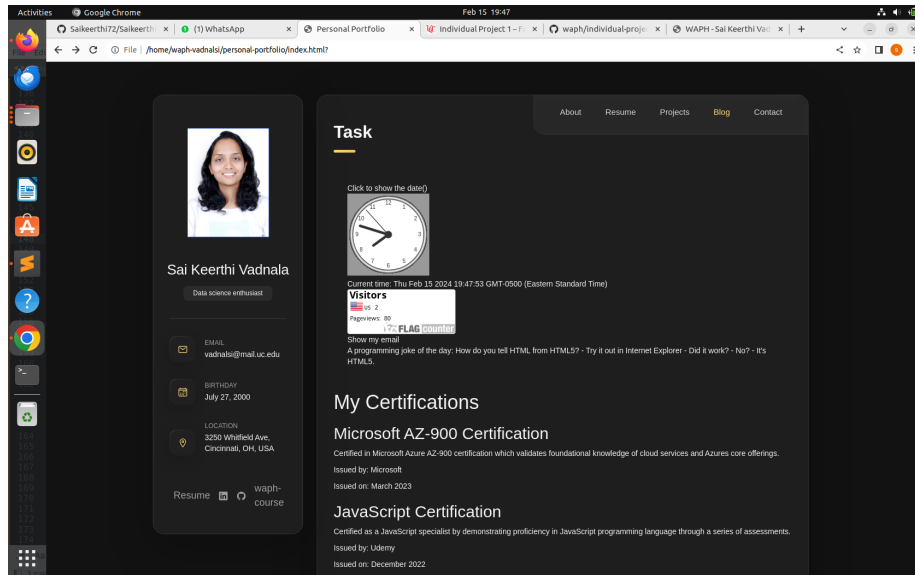


Figure 15: Output of all JS functionalities

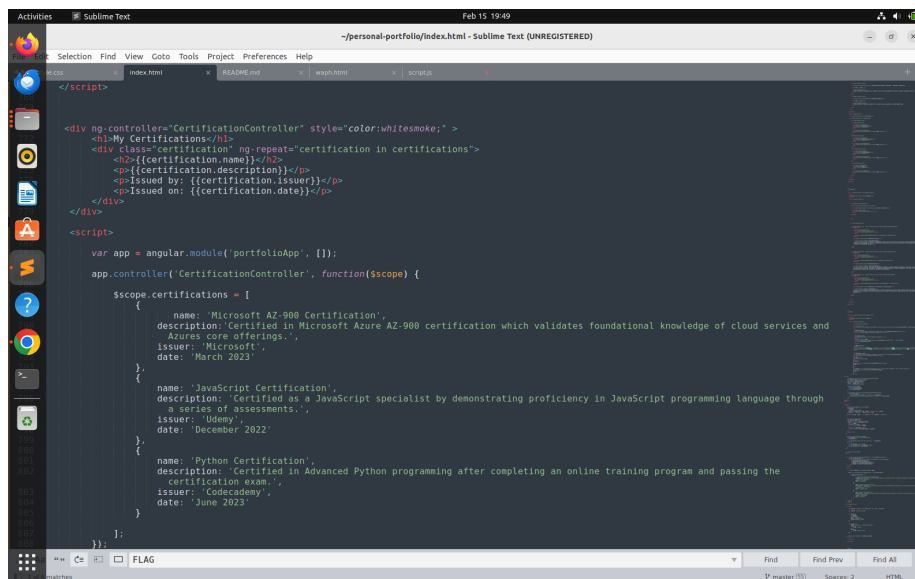


Figure 16: Certifications code using angular

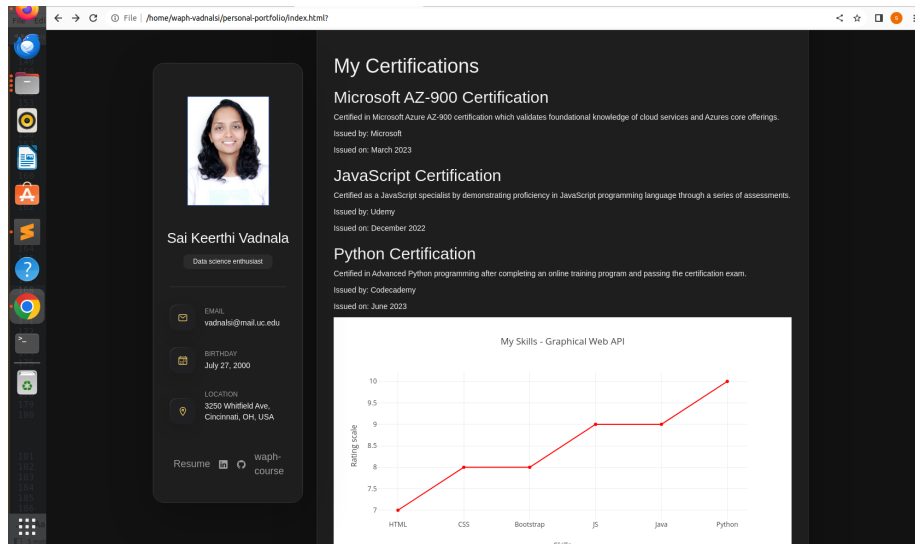


Figure 17: Certifications output

logging the joke to the console and updating the content of the element with the id “response” to display the joke for every 60 seconds.

- Below is the code snippet and output for digital clock, (fig. 18,19).

The screenshot shows a code editor with the following JavaScript code:

```

drawNumbers(ctx, radius);
drawTime(ctx, radius);

$.get("https://v2.jokeapi.dev/joke/Programming?type=single",
function(result){
  console.log("From jokeAPI: " + JSON.stringify(result));
  $("#response").html("A programming joke of the day: " + result.joke);
});

```

Figure 18: Jokeapi code

- Graphical web API
- I have used Plotly.js, a graphing library, to generate a scatter plot to display skill rating.
- The ‘xValues’ array contains the skills, while ‘yValues’ represents their corresponding ratings.
- The layout defines the title of the graph along with labels for the x and y axes.
- The ‘Plotly.newPlot()’ function creates the graph within a ‘div’ container with the id “myDiv”.
- Below is the code snippet and output for generating a chart using graphical web API, (fig. 20,21).

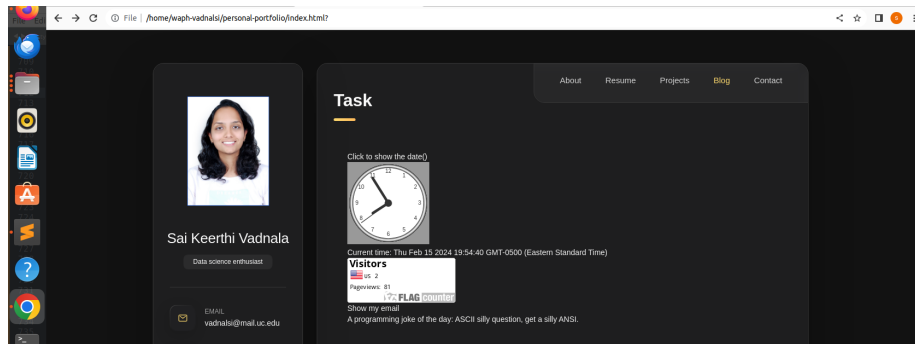


Figure 19: Jokeapi output

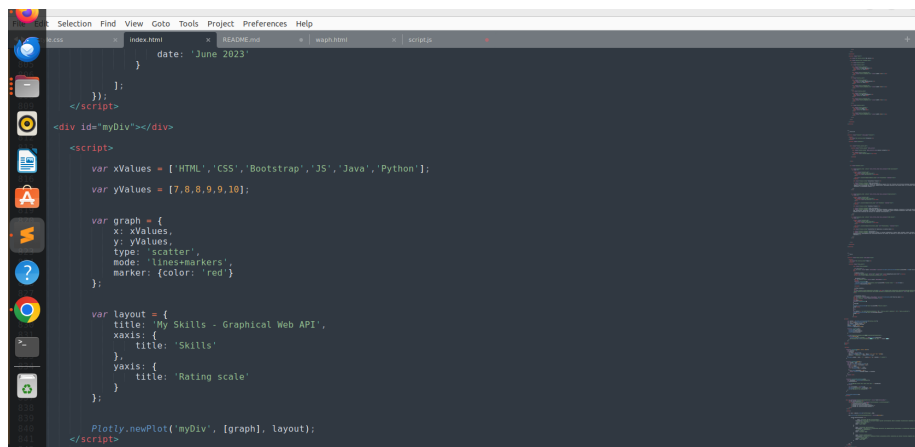


Figure 20: Graphic web api code

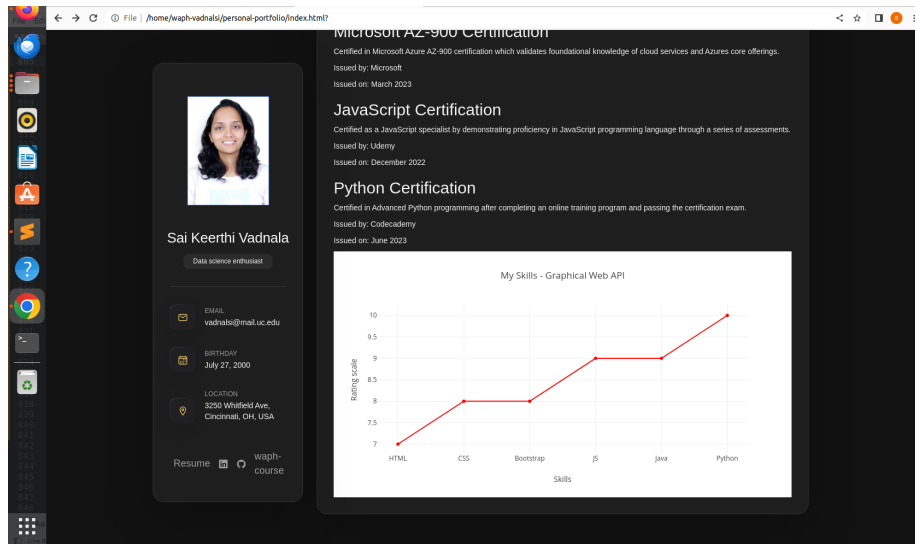
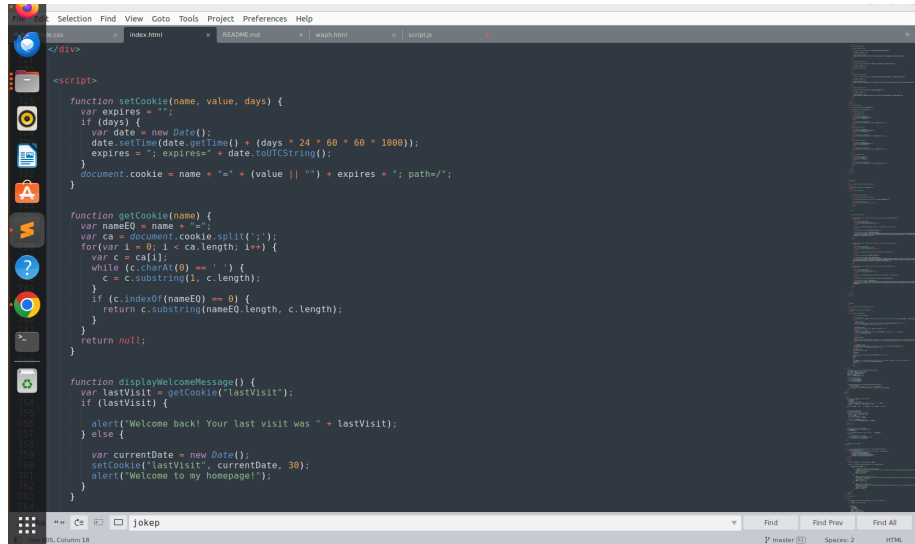


Figure 21: Graphic web api Output

### Using JavaScript cookies to remember the client

- The 'setCookie' function sets a cookie with the specified name, value, and expiration date in days.
- The 'getCookie' function retrieves the value of a cookie by its name.
- The 'displayWelcomeMessage' function checks if the user has visited the website before by retrieving the last visit timestamp from the cookie.
- If the user has visited before, it displays a welcome back message with the timestamp of their last visit.
- If it's the user's first visit, it sets a cookie with the current date as the last visit timestamp and displays a welcome message.
- Below is the code snippet and output for above task(fig. 22,23,24).



```
<script>

function setCookie(name, value, days) {
  var expires = "";
  if (days) {
    var date = new Date();
    date.setTime(date.getTime() + (days * 24 * 60 * 60 * 1000));
    expires = "; expires=" + date.toUTCString();
  }
  document.cookie = name + "=" + (value || "") + expires + "; path=/";
}

function getCookie(name) {
  var nameEQ = name + "=";
  var ca = document.cookie.split(';');
  for(var i = 0; i < ca.length; i++) {
    var c = ca[i];
    while (c.charAt(0) == ' ') {
      c = c.substring(1, c.length);
    }
    if (c.indexOf(nameEQ) == 0) {
      return c.substring(nameEQ.length, c.length);
    }
  }
  return null;
}

function displayWelcomeMessage() {
  var lastVisit = getCookie("lastVisit");
  if (lastVisit) {
    alert("Welcome back! Your last visit was " + lastVisit);
  } else {
    var currentDate = new Date();
    setCookie("lastVisit", currentDate, 30);
    alert("Welcome to my homepage!");
  }
}
```

Figure 22: Cookies code

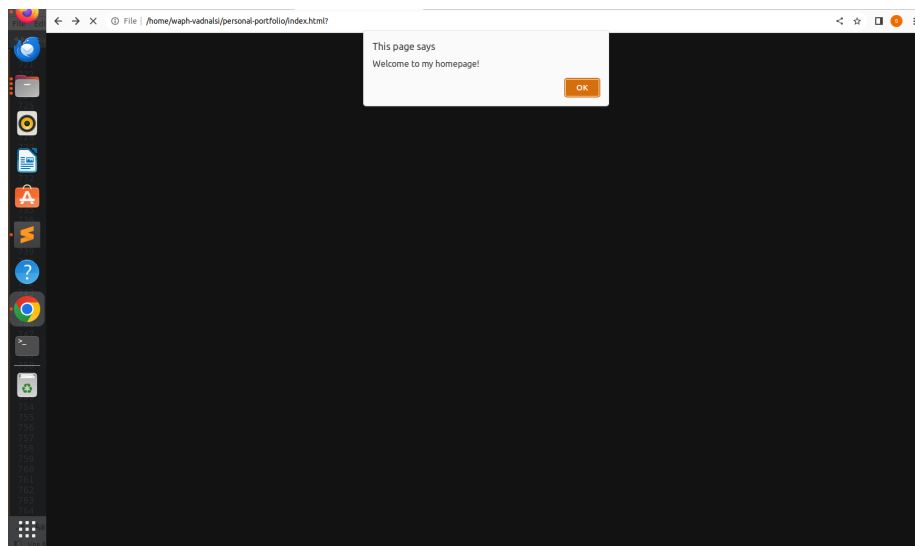


Figure 23: Welcome home page

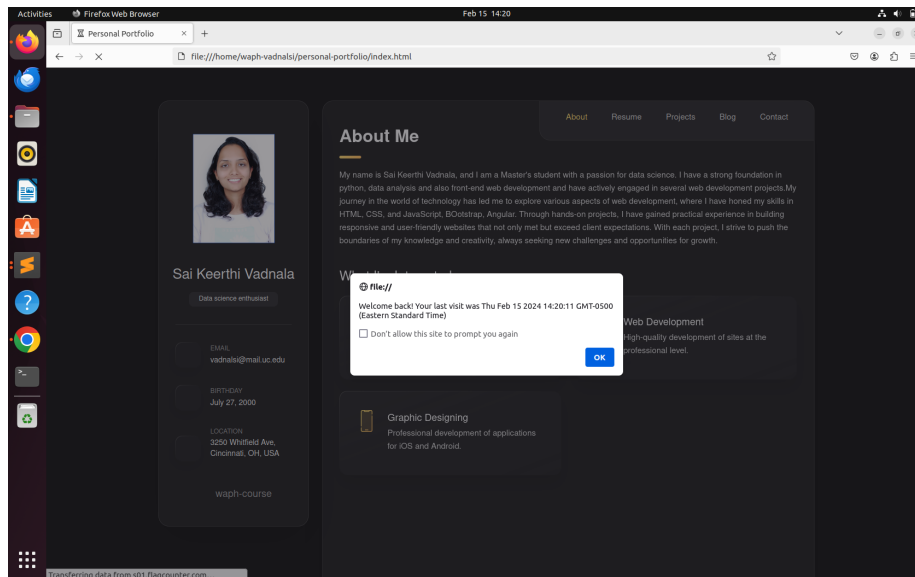


Figure 24: Last visit page