



# INTERNSHIP REPORT

CST354

## Abstract

This report is being presented as part of CST354 course to describe the details of the internship done as part of the winter internship process of the DKTE's TEI Ichalkaranji, curriculum.

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# Internship at “EDUSKILLS FOUNDATION ACADEMY”



## **EduSkills®**

Nation Building Through Skills

### **ABSTRACT**

This report elaborates on the training and project work undertaken during my internship as a **Python Full Stack Developer**. The internship, conducted from October to December 2024, was supported by EduSkills and certified by the All India Council for Technical Education (AICTE). The internship focused on the web development Basics with Compose course.

The internship primarily aimed to establish a strong understanding of modern web development principles. The program was designed to build foundational knowledge in both front-end and back-end development, covering essential technologies and frameworks such as HTML, CSS, JavaScript, Python, Django, and MySQL.

The report Outline the various modules covered and the multiple-choice question tests administered, alongside the knowledge and skills gained during the internship.

### **ABOUT THE COMPANY**

Eduskills Foundation Academy is an educational organization that partners with academic institutions to offer industry-driven training programs and internships. Their programs are designed to bridge the gap between academic learning and industry requirements, equipping students with relevant technical skills and hands-on project experience.

Key services include:

- Technical Internships in software development, AI, ML, cloud, etc.
- Certification and mentorship for skill development.
- Industry-based curriculum and training modules.

# Tools used

## 1. HTML (HyperText Markup Language)

- **Framework for Web Content**

HTML provides the foundation for arranging text, images, links, and other elements on a webpage

- **Tag-Driven Structure**

It uses specific tags like `<h1>`, `<p>`, and `<a>` to organize and format page content.

- **Handling Forms and Inputs**

Tags like `<form>`, `<input>`, and `<textarea>` enable user interaction by collecting data and sending it to servers.

- **Semantic Elements for Clarity**

HTML includes meaningful tags such as `<header>`, `<article>`, and `<footer>` to improve both accessibility and search engine ranking.

## 2. CSS (Cascading Style Sheets)

- **Enhancing the Look of Web Pages**

CSS adds visual style to HTML elements, managing layout, colors, fonts, spacing, and making websites attractive and professional.

- **Selectors and Style Rules**

CSS selects elements using `.classes`, `#ids`, or tag names, then applies properties like `background-color`, `font-size`, and `padding` to customize their appearance.

- **Building Responsive Websites**

Media queries adjust designs to fit various devices like phones, tablets, and desktops, ensuring a smooth user experience everywhere

- **Understanding the Box Model and Layout Systems**

CSS treats every element as a box and organizes spacing with margin, border, padding, and content areas; Flexbox and Grid simplify building complex layouts

- **Creating Transitions and Animations**

CSS brings pages to life with smooth effects using transition, and defines more advanced movements and sequences with @keyframes.

### **3. Bootstrap**

- **Fast Front-End Development**

Bootstrap is a popular framework offering ready-to-use CSS and JavaScript components to create modern, mobile-first websites easily

- **Flexible Grid System**

It features a 12-column responsive grid that helps arrange content neatly across different devices and screen sizes

- **Pre-Built UI Components**

Bootstrap provides a rich library of components like buttons, navigation bars, modals, forms, and cards, speeding up the design process.

- **Responsive by Default**

Designed with a mobile-first mindset, Bootstrap ensures that web pages automatically adjust to fit smartphones, tablets, and desktops.

- **Interactive Carousel (Image Slider)**

Bootstrap's carousel component enables you to build dynamic sliders with controls and indicators, great for displaying images or featured content

### **4. JavaScript**

- **Making Web Pages Dynamic**

JavaScript is a scripting language that enables the creation of interactive and dynamic features on websites, running directly inside the browser to improve user experience without needing page reloads.

- **Working with the DOM**

JavaScript allows you to access and modify HTML content in real time through the Document Object Model (DOM).

- **Handling User Events**

JavaScript reacts to user interactions such as clicks, form inputs, and key presses, allowing developers to trigger specific behaviours or actions.

- **Asynchronous Data Handling (AJAX)**

JavaScript supports fetching data from servers in the background using AJAX, enabling parts of a page to update without a full reload.

## 5. jQuery

- **Simplified JavaScript Library**

jQuery is a fast and lightweight JavaScript library that streamlines tasks such as HTML DOM manipulation, event handling, animations, and AJAX operations, enabling developers to write cleaner and more efficient code.

- **Concise Syntax**

jQuery offers shorter, intuitive methods to perform complex JavaScript operations, making code more readable and quicker to develop.

- **Cross-Browser Compatibility**

jQuery abstracts browser inconsistencies, ensuring scripts function uniformly across various browsers like Chrome, Firefox, Safari, and Edge.

- **Built-In Effects and Animations**

jQuery includes predefined animation functions such as `.fadeIn()`, `.slideDown()`, and `.toggle()`, enhancing user interface interactions with minimal code.

- **AJAX Integration**

jQuery simplifies asynchronous server communication using methods like `.ajax()`, `.get()`, and `.post()`, allowing seamless data retrieval without page reloads.

- **Efficient Event Handling**

jQuery provides straightforward syntax to bind events (clicks, keypresses, form submissions) using `.on()` and shortcut methods like `.click()` for responsive behavior.

- **Advanced DOM Traversal and Manipulation**

With powerful selectors and method chaining, jQuery enables dynamic selection and modification of DOM elements using functions like `.html()`, `.val()`, `.addClass()`, and `.remove()`.

- **Optimized for Performance**

Despite its rich feature set, jQuery remains lightweight, ensuring quick load times and high performance even on slower networks.

## 6. Python

- **High-Level Interpreted Language**

Python is a high-level, interpreted programming language, designed for ease of use with a focus on readability, commonly applied in fields like backend development, data science, scripting, and automation.

- **Interpreted and Dynamically Typed**

Python is interpreted, meaning it executes code line-by-line, and dynamically typed, meaning variable types are determined at runtime, allowing for rapid development and flexible coding.

- **Cross-Platform Compatibility**

Python is platform-independent, executing consistently across major operating systems, such as Windows, Linux, and macOS, thus enhancing the portability of Python applications.

- **Extensive Standard Library**

Python comes with a robust standard library, providing a vast collection of modules and functions that facilitate common programming tasks such as file manipulation, web interaction, and data analysis.

- **Support for Multiple Programming Paradigms**

Python supports multiple programming paradigms, including Object-Oriented Programming (OOP), Functional Programming, and Procedural Programming, offering flexibility in designing solutions.

## 7. Django

- **High-Level Web Framework**

Django is a high-level Python web framework that enables rapid development of secure, scalable, and maintainable

web applications, adhering to the MVT (Model-View-Template) architectural pattern.

- **Automated Admin Interface**

Django automatically generates an administrative interface that allows for easy management of database models with minimal configuration, providing a user-friendly dashboard for administrators.

- **Integrated Authentication System**

Django includes a secure authentication system that handles user authentication processes such as login, logout, password hashing, and user account management

- **Object-Relational Mapping (ORM)**

Django's ORM abstracts database interactions by mapping Python classes to relational database tables, allowing developers to interact with the database using Python code instead of raw SQL queries.

- **Built-in Security Features**

Django comes with built-in protections against common security vulnerabilities, such as SQL injection, cross-site scripting (XSS), and cross-site request forgery (CSRF), helping to secure web applications by default.

## 8. MySQL

- **Relational Database Management System (RDBMS)**

MySQL is an open-source relational database management system (RDBMS) that stores and manages structured data in the form of tables, using SQL (Structured Query Language) to perform various operations.

- **Relational Data Storage**

MySQL organizes data into structured tables, with relationships between tables defined through mechanisms like one-to-one, one-to-many, and many-to-many associations, ensuring efficient data retrieval and management.

- **SQL Query Language**

MySQL utilizes SQL (Structured Query Language) for database operations, enabling users to execute commands such as SELECT, INSERT, UPDATE, DELETE, and complex JOIN queries to interact with the data.

- **Data Integrity and Constraints**

MySQL enforces data integrity through constraints like primary keys, foreign keys, NOT NULL, UNIQUE, and CHECK constraints, which ensure that only valid data is inserted into the database and maintain consistency.

- **Support for Diverse Data Types**

MySQL supports a wide range of data types such as INT, VARCHAR, DATE, TEXT, BOOLEAN, and ENUM, providing flexibility in designing database schemas for various application needs.

## 9. Git & GitHub

- **Distributed Version Control**

Git is a distributed version control system (VCS) that tracks changes in code, allowing developers to maintain a history of modifications and revert to previous versions as needed.

- **Branching and Merging**

Git enables developers to create branches for developing features or fixing bugs in isolation. Once work is completed, branches can be merged back into the main codebase, ensuring smooth integration of changes.

- **Remote Collaboration**

GitHub is a cloud-based platform that hosts Git repositories, allowing multiple developers to collaborate on the same project from different locations. It provides tools for issue tracking, code review, and project management.

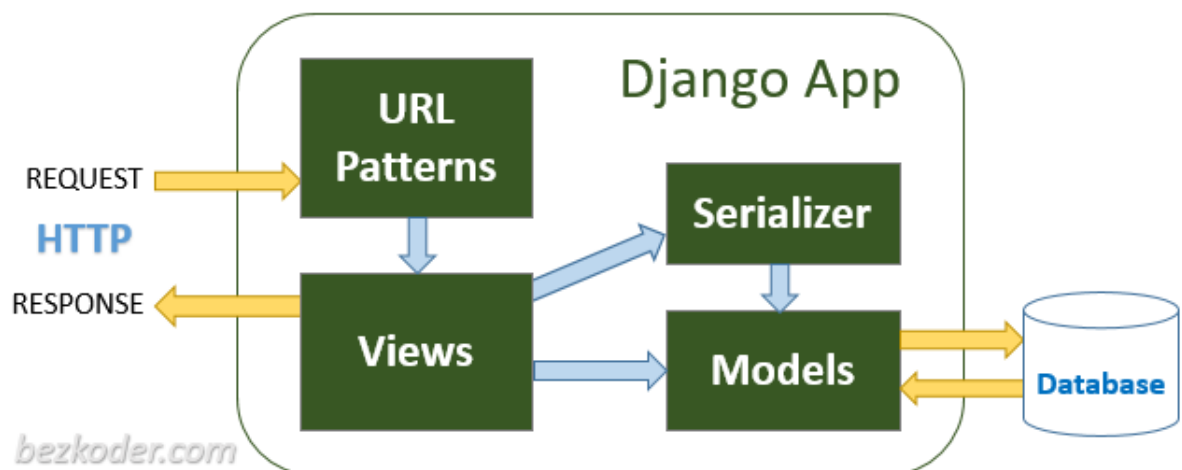


# Working methodology

## System Design and Development Lifecycle :

We followed an Agile development approach, participating in sprints and reviews.  
The tech stack focused on:

1. Backend: Django for building RESTful APIs.

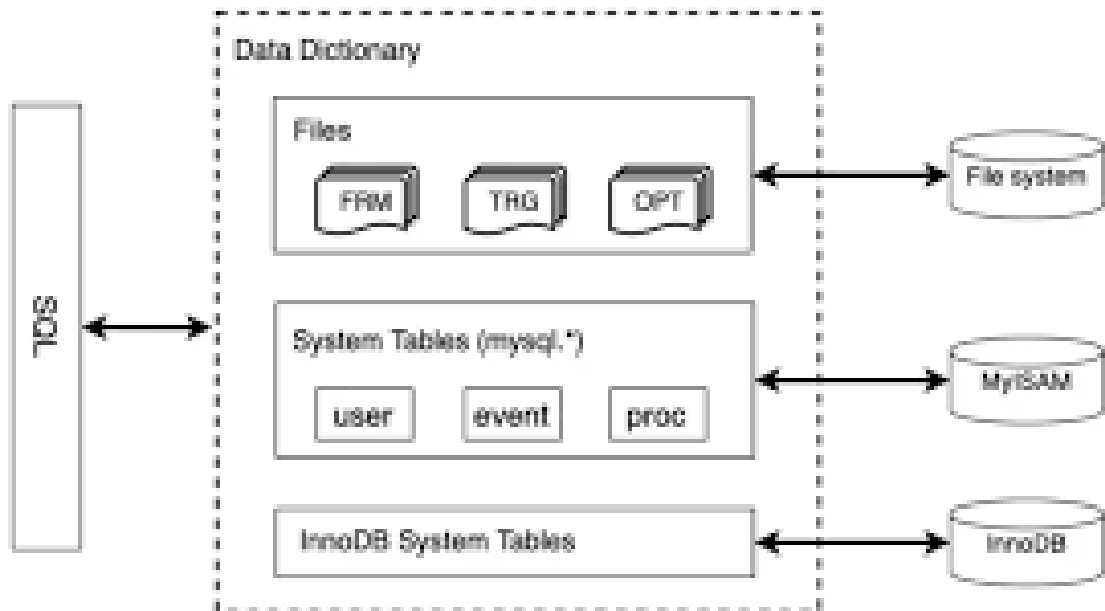


2. Frontend: HTML, CSS, JavaScript, Bootstrap for responsive UI.

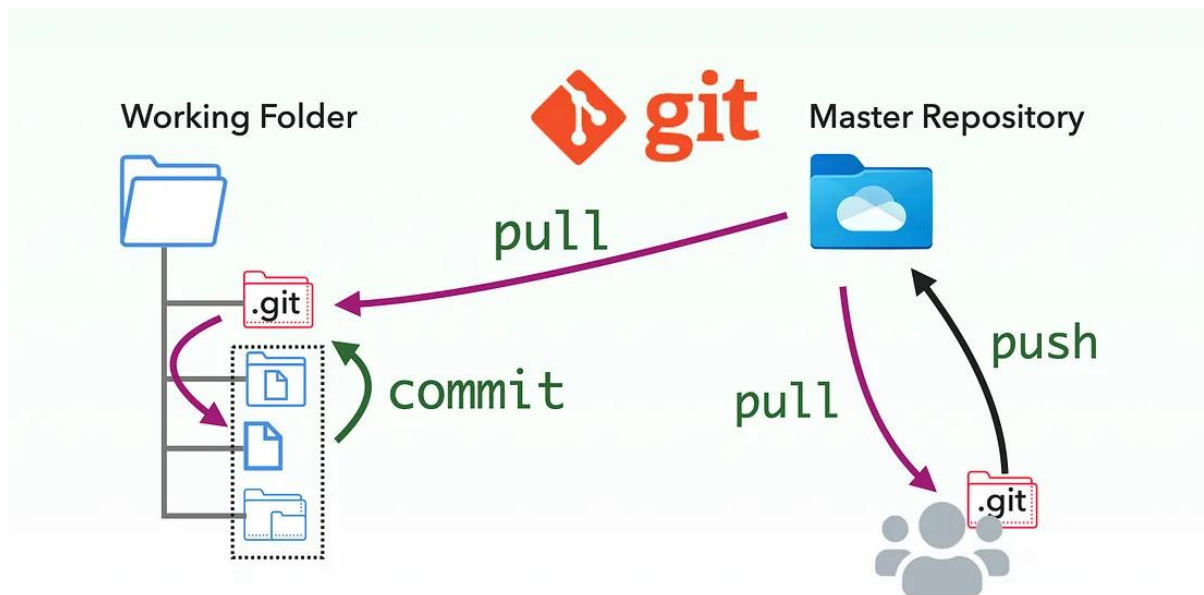


### 3. Database: MySQL for persistent data storage.

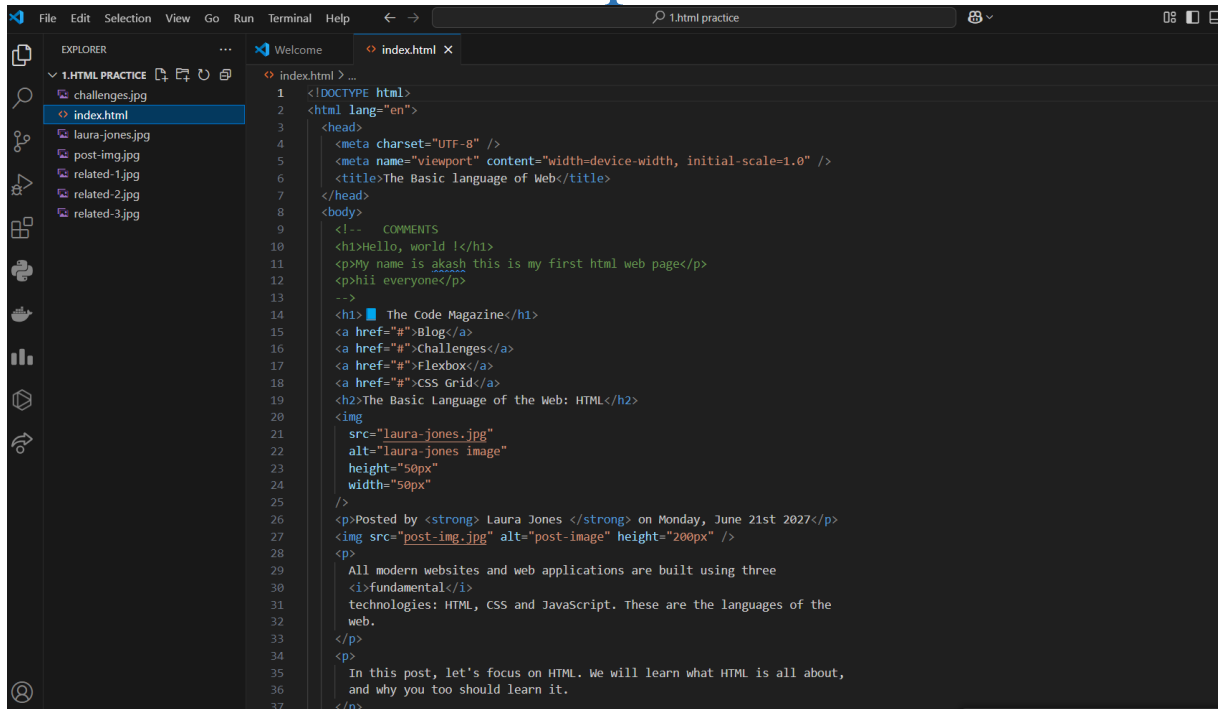
MySQL Data Dictionary Before MySQL 8.0



### 4. GitHub for version control.



# Snapshots



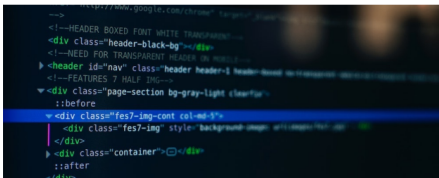
## ■ The Code Magazine

[Blog](#) [Challenges](#) [Flexbox](#) [CSS Grid](#)

### The Basic Language of the Web: HTML



Posted by **Laura Jones** on Monday, June 21st 2027



All modern websites and web applications are built using three *fundamental* technologies: HTML, CSS and JavaScript. These are the languages of the web.

In this post, let's focus on HTML. We will learn what HTML is all about, and why you too should learn it.

#### What is HTML?

HTML stands for HyperText Markup Language. It's a markup language that web developers use to structure and describe the content of a webpage (not a programming language).

HTML consists of elements that describe different types of content: paragraphs, links, headings, images, video, etc. Web browsers understand HTML and render HTML code as websites.

In HTML, each element is made up of 3 parts:

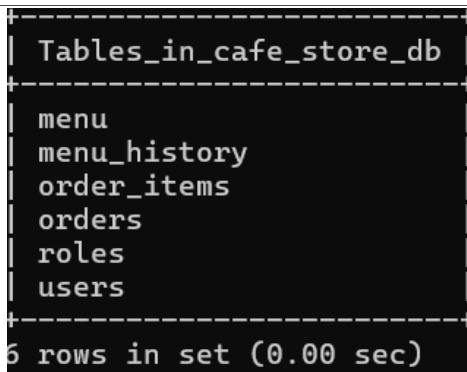
1. The opening tag
2. The closing tag
3. The actual element

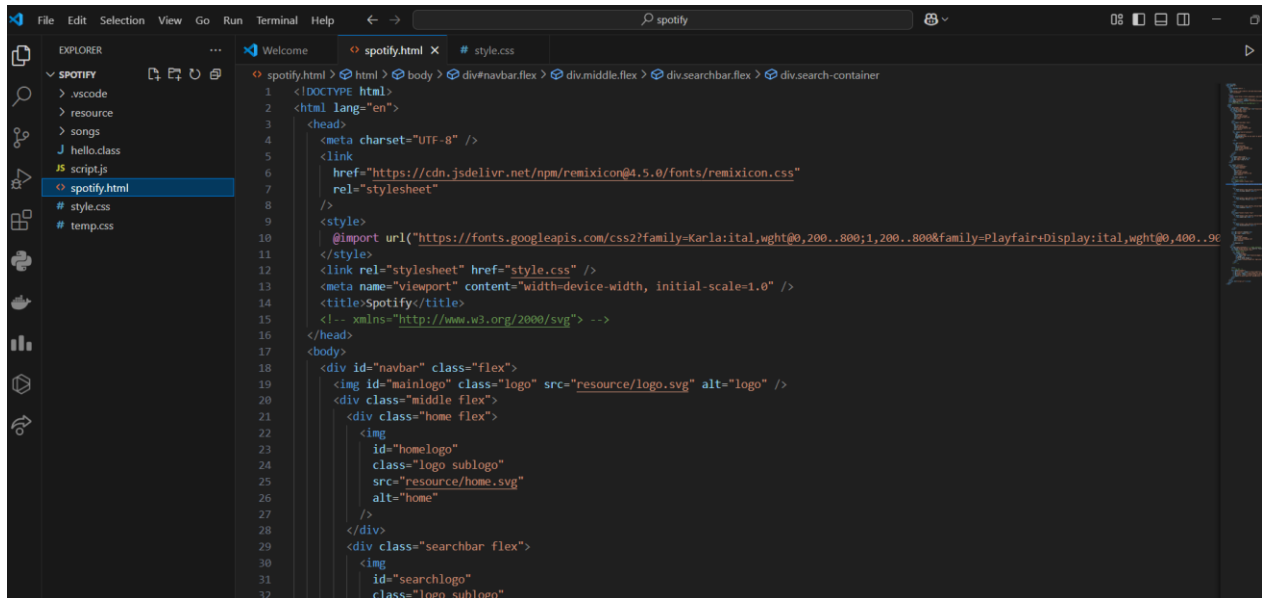
You can learn more at [MDN Web Docs](#).

#### Why should you learn HTML?

There are countless reasons for learning the fundamental language of the web. Here are 5 of them:

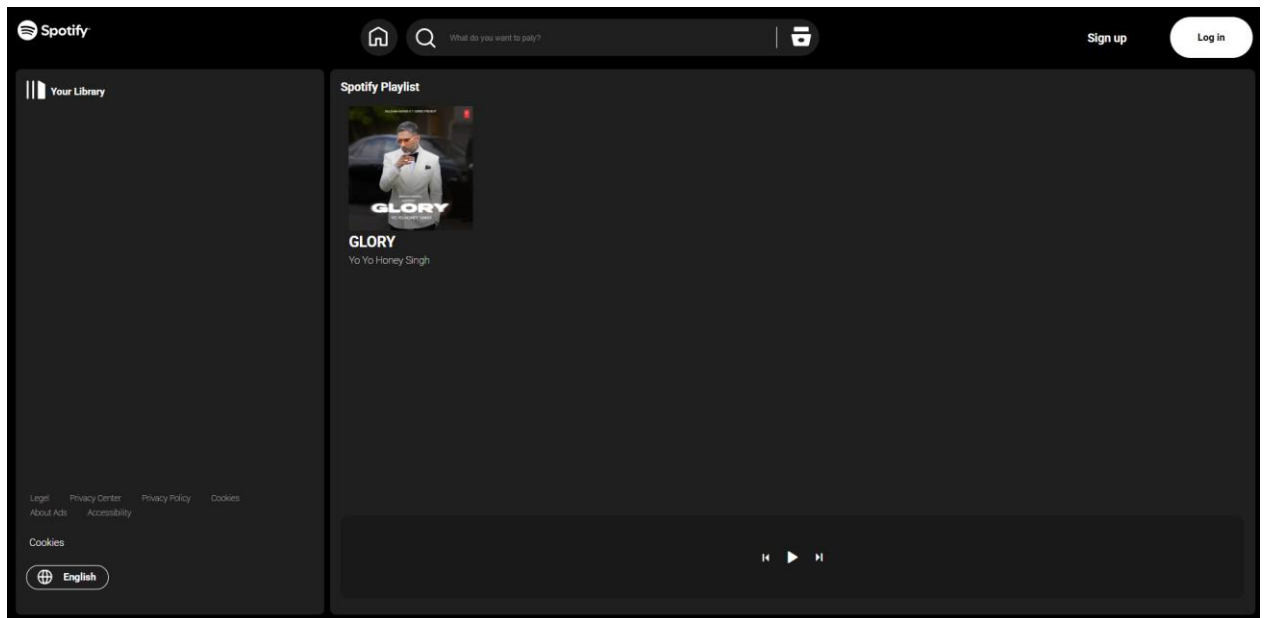
- To be able to use the fundamental web dev language
- To hand-craft beautiful websites instead of relying on tools like Wordpress or Wix
- To build web applications





The screenshot shows the Visual Studio Code editor with a file explorer on the left and a code editor on the right. The file explorer shows a project named 'SPOTIFY' with files like .vscode, resource, songs, hello.class, script.js, spotify.html, style.css, and temp.css. The code editor shows the content of 'spotify.html', which is an HTML file with a dark theme. The code includes a DOCTYPE declaration, a head section with meta tags for charset, viewport, and title, and a body section with a navbar, a main logo, and a searchbar. The code is as follows:

```
1 <!DOCTYPE html>
2 <html lang="en">
3   <head>
4     <meta charset="UTF-8" />
5     <link
6       href="https://cdn.jsdelivr.net/npm/remixicon@4.5.0/fonts/remixicon.css"
7       rel="stylesheet"
8     />
9     <style>
10      @import url("https://fonts.googleapis.com/css2?family=Karla:ital,wght@0,200..800;1,200..800&family=Playfair+Display:ital,wght@0,400..900;1,400..900" rel="stylesheet" href="style.css" />
11    </style>
12    <link rel="stylesheet" href="style.css" />
13    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
14    <title>Spotify</title>
15    <!-- xmlns="http://www.w3.org/2000/svg" -->
16  </head>
17  <body>
18    <div id="navbar" class="flex">
19      
20      <div class="middle flex">
21        <div class="home flex">
22          
28        </div>
29        <div class="searchbar flex">
30          <img
31            id="searchlogo"
32            class="logo sublogo"
```



## Conclusion

During my 10-week virtual internship at **EduSkills** under the **India Edu Program**, I gained valuable knowledge in **Python Fullstack development** that will greatly benefit my future projects..

Through this internship:

- I enhanced my problem-solving skills by building real-world projects.
- I understood the importance of efficient UI/UX design.
- I gained practical knowledge of **Bootstrap** and **MySQL**.
- I became proficient in **HTML**, **CSS**, **JavaScript**, and version control using **Git**.
- The structured coursework and mentorship helped me build a strong foundation in **Python Fullstack** development

I am truly grateful for the opportunity to learn and explore new technologies aligned with industry standards.

Overall, my internship at Eduskills Foundation Academy was a valuable learning experience, enhancing my expertise in software development and teamwork. I am thankful for the supportive team and eager to apply these skills in future projects.

## About my role

As a **Python Full Stack Developer Intern**, I actively engaged in learning and applying full stack web development concepts.

### **My responsibilities included:**

- Completing weekly assignments and quizzes covering HTML, CSS, JavaScript , Python , Django and MySQL
- Implementing efficient database management and integration using MYSQL with Django.
- Designing responsive and user-friendly UI layouts with HTML, CSS, and Bootstrap.
- Collaborating with mentors and peers through forums and discussions for doubt resolution.

Throughout the internship, I honed my full stack development skills, strengthened my understanding of web application architecture, and gained confidence in building and deploying complete web solutions. This experience laid a strong foundation for my future career as a **full stack web developer**.

# Certificate



अखिल भारतीय तकनीकी शिक्षा परिषद्  
All India Council for Technical Education



## Certificate of Virtual Internship

This is to certify that

**Akash DIGAMBAR KUMBHAR**

**DKTE Society's Textile and Engineering Institute**

has successfully completed 10 weeks

**Python Full Stack Developer Virtual Internship**

**During Oct - Dec 2024**

Supported By



**EduSkills**  
ACADEMY

**Shri Buddha Chandrasekhar**  
Chief Coordinating Officer (CCO)  
NEAT Cell, AICTE

**Dr. Satya Ranjan Biswal**  
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EduSkills



Certificate ID :62eafee2e01b5a6d3a406d87850fd7b6

Student ID :STU662b97b3e79e11714132915



GRADE- O (Outstanding):90-100 | E (Excellent):80-89 | A (Very Good):70-79 | B (Good): 60-69 | C (Fair): 50-59 | D (Average): 40-49 | P (Pass): 30-39 | F (Fail): Below 30