PROJECT DOCUMENTATION

PROJECT NAME:-

TECHMAP

PROJECT OVERVIEW:

TechMap is a dedicated platform aimed at assisting students who aspire to build a career in Computer Science (CS) and Information Technology (IT). Our website provides comprehensive roadmaps and integrates a multitude of resources to guide students through their career journey. Whether you're just starting out or looking to advance your skills, TechMap consolidates all necessary tools and information in one convenient location.

TEAM DETAILS

Team Lead**: Vedika Joshi**

Role: Team Lead

Responsibilities: Managed all project tasks, assisted team members, handled frontend development.

Team Members:

Radhika Karma

Role: Contributor

Responsibilities: Contributed to website development, handled documentation work.

Sakshi Parihar

Role: Website Designer

Responsibilities: Designed the website.

Riya Dubey

Role: Contributor

Responsibilities: Contributed to website development, handled presentation tasks.

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INTRODUCTION

OVERVIEW

TechMap is an innovative platform designed to assist students at any level in building a career in Computer Science (CS) and Information Technology (IT). Our primary focus is on high school students who often find themselves confused about how to navigate a career path in these fields. TechMap provides comprehensive resources, detailed roadmaps, and information on job opportunities to guide them. Our purpose is to prevent students from wasting valuable time searching for resources, and our goal is to offer a one-stop solution for all their career-building needs in CS and IT.

SCOPE

TechMap covers a wide range of resources and guidance, including:

- Detailed roadmaps for different career paths in CS and IT
- Access to curated resources such as tutorials, articles, and videos
- Information on job opportunities and internships
- Guidance on academic requirements and skills development
- Community support and mentorship

However, TechMap does have some limitations:

- The platform primarily targets high school students but is also useful for college students and professionals seeking to transition into CS and IT.
- While we provide extensive resources, individual learning and success will also depend on the users' dedication and effort.
- TechMap offers guidance and resources but does not guarantee job placements or academic success.

AUDIENCE

The intended users and contributors of TechMap include:

- **High School Students:** Our primary audience, who are exploring potential career paths in CS and IT.
- **College Students:** Those who are pursuing a degree in CS or IT and looking for additional resources and guidance.
- **Career Changers:** Individuals looking to transition into a career in CS or IT.

• **Educators and Mentors**: Teachers, professors, and industry professionals who want to contribute resources or provide mentorship.

• **Parents**: Parents of students who want to support their children's career aspirations in CS and IT.

PREREQUISITES

Before getting started with TechMap, users should have:

• **Basic Computer Literacy:** A fundamental understanding of how to use a computer and navigate the internet.

• **Interest in CS and IT:** A genuine interest in exploring and pursuing a career in Computer Science or Information Technology.

• **Access to a Computer and Internet:** As the platform is web-based, users will need reliable access to a computer and the internet to utilize the resources provided.

PROJECT STRUCTURE

DIRECTORY LAYOUT

The TechMap project is organized into a series of directories and files to keep the codebase structured and manageable. Below is an overview of the project's directory layout and the purpose of key files and folders.techmap/

The repository "MOONHACKS" on GitHub contains the following directory layout:

- **css/**: Directory likely containing CSS files for styling.
- **images/**: Directory likely containing image assets.
- **js/**: Directory likely containing JavaScript files.
- **pages/**: Directory likely containing HTML or other page files.
- **README.md**: A markdown file with repository information.

USAGE

HOW TO USE

The TechMap website is designed to provide a seamless experience for students who want to build their careers in CS and IT. Here are detailed instructions on how to use the web project, including common workflows and features.

1. HOME PAGE

The Home Page is the starting point of our website. It provides an overview of the vision, mission, purpose, and goals of the TechMap project.

• Vision: Our long-term aspiration for the TechMap platform.

• Mission: The actions we are taking to achieve our vision.

• Goals: The specific objectives we aim to accomplish.

2. ROADMAPS PAGE

The Roadmaps Page includes comprehensive roadmaps for various domains within CS and IT. Each roadmap provides a structured path for students to follow.

• Web Developer: Steps to become a proficient web developer, including essential technologies and frameworks.

• App Developer: Guidelines for building mobile applications for Android and iOS platforms.

• DevOps Developer: Instructions for integrating and automating processes within IT teams.

• Data Scientist: Steps to analyze and interpret complex data.

• Cyber Security: Guidelines for protecting systems and networks from cyber threats.

How to use:

1.Navigate to the Roadmaps Page.

2. Select the desired career path.

3. Follow the steps outlined in the roadmap to progress through your learning journey.

3. RESOURCES PAGE

The Resources Page aggregates a variety of learning materials to help students acquire the necessary skills without wasting time searching for resources.

• Courses: Curated list of online courses from platforms like Coursera, Udemy, and edX.

• Tutorials: Step-by-step guides and tutorials on various topics.

• Certifications: Information on relevant certifications and how to obtain them.

• YouTube Channels: Recommended YouTube channels for learning and staying updated with industry trends.

• E-books: Links to e-books covering various subjects.

• Practice Resources: Coding practice websites like LeetCode, HackerRank, and CodeSignal.

How to use:

1. Navigate to the Resources Page.

2. Select the type of resource you need (e.g., Courses, Tutorials).

3. Browse through the list and choose the resource that best fits your needs.

4. JOB LISTINGS AND OPPORTUNITIES PAGE

The Job Listings and Opportunities Page displays various job openings and opportunities available in the CS and IT domains.

• Job Listings: Current job openings in various fields.

• Internships: Available internships for students and fresh graduates.

• Freelance Opportunities: Freelance projects and gigs for independent professionals.

How to use:

1. Navigate to the Job Listings and Opportunities Page.

2. Browse through the list of job openings and opportunities.

3. Click on a job listing to view more details and application instructions.

Use the provided resources and roadmaps to prepare for job applications

KEY FEATURE: ALL-IN-ONE SOLUTION

The most important feature of the TechMap website is its **comprehensive approach to providing everything a student needs in one place.** Students typically struggle to find courses, tutorials, certifications, YouTube channels, e-books, practice resources, roadmaps, and job opportunities across different platforms. TechMap eliminates this hassle by offering all these resources in one convenient location, making it a one-stop solution for all queries related to CS and IT domains.

FEATURE LIST

1. COMPREHENSIVE ROADMAPS

Description: Detailed and structured roadmaps for various career paths in CS and IT, such as web development, app development, DevOps, data science, and cybersecurity.

Access and Usage:

• Navigate to the Roadmaps Page.

• Select the desired career path.

• Follow the step-by-step roadmap to progress through your learning journey.

2. CURATED COURSES

Description: A collection of the best online courses from platforms like Coursera, Udemy, and edX, curated to meet the needs of CS and IT students.

Access and Usage:

• Navigate to the Resources Page.

• Select the "Courses" section.

• Browse through the list of recommended courses and enroll in the ones that fit your needs.

3. IN-DEPTH TUTORIALS

Description: Step-by-step tutorials on various topics to help students understand and master specific skills and technologies.

Access and Usage:

• Navigate to the Resources Page.

• Select the "Tutorials" section.

• Choose a tutorial to follow and practice the concepts.

4. CERTIFICATION GUIDANCE

Description: Information on relevant certifications in CS and IT, including how to prepare for and obtain these certifications.

Access and Usage:

• Navigate to the Resources Page.

• Select the "Certifications" section.

• Review the details of each certification and follow the preparation guidelines.

5. RECOMMENDED YOUTUBE CHANNELS

Description: A list of YouTube channels that offer high-quality content related to CS and IT, helping students stay updated with industry trends and learn new skills.

Access and Usage:

• Navigate to the Resources Page.

• Select the "YouTube Channels" section.

• Subscribe to and watch videos from the recommended channels.

6. E-BOOKS AND ARTICLES

Description: A collection of e-books and articles covering various CS and IT topics, available for students to read and enhance their knowledge.

Access and Usage:

• Navigate to the Resources Page.

• Select the "E-books" section.

• Download or read the e-books and articles provided.

7. PRACTICE RESOURCES

Description: Links to coding practice websites like LeetCode, HackerRank, and CodeSignal, enabling students to practice and improve their coding skills.

Access and Usage:

• Navigate to the Resources Page.

• Select the "Practice Resources" section.

• Access the practice platforms and start solving coding challenges.

8. JOB LISTINGS AND OPPORTUNITIES

Description: A dedicated page that displays various job openings, internships, and freelance opportunities available in the CS and IT domains.

Access and Usage:

• Navigate to the Job Listings and Opportunities Page.

• Browse through the list of job openings and opportunities.

• Click on a job listing to view more details and application instructions.

ACCESS AND USAGE:-

VISIT THE TECHMAP WEBSITE: OPEN YOUR WEB BROWSER AND GO TO THE TECHMAP WEBSITE URL.

NAVIGATE THROUGH THE MENU: USE THE NAVIGATION MENU TO ACCESS DIFFERENT SECTIONS OF THE WEBSITE:

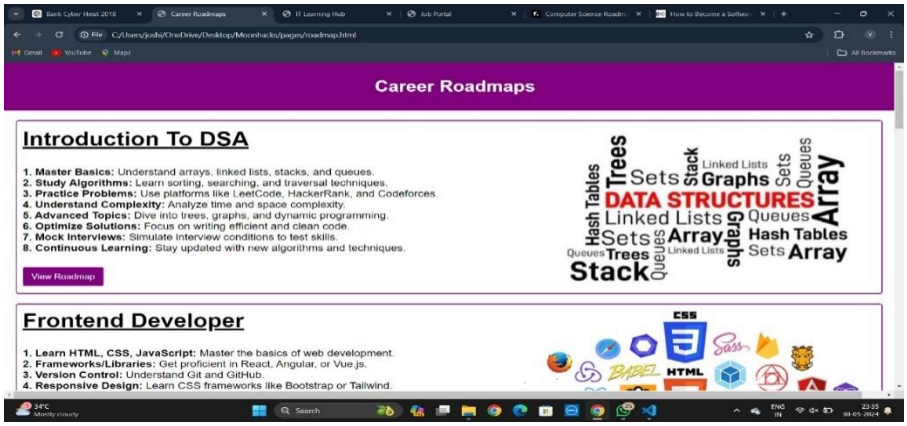
- HOME
- ROADMAPS
- RESOURCES
- JOB LISTINGS AND OPPORTUNITIES
- HOW TO USE FEATURES

Using Roadmaps:

SELECT THE "ROADMAPS" SECTION FROM THE NAVIGATION MENU.

CHOOSE A CAREER PATH (E.G., WEB DEVELOPER, DATA SCIENTIST).

FOLLOW THE ROADMAP STEPS, WHICH INCLUDE RECOMMENDED COURSES, TUTORIALS, AND PRACTICE EXERCISES.

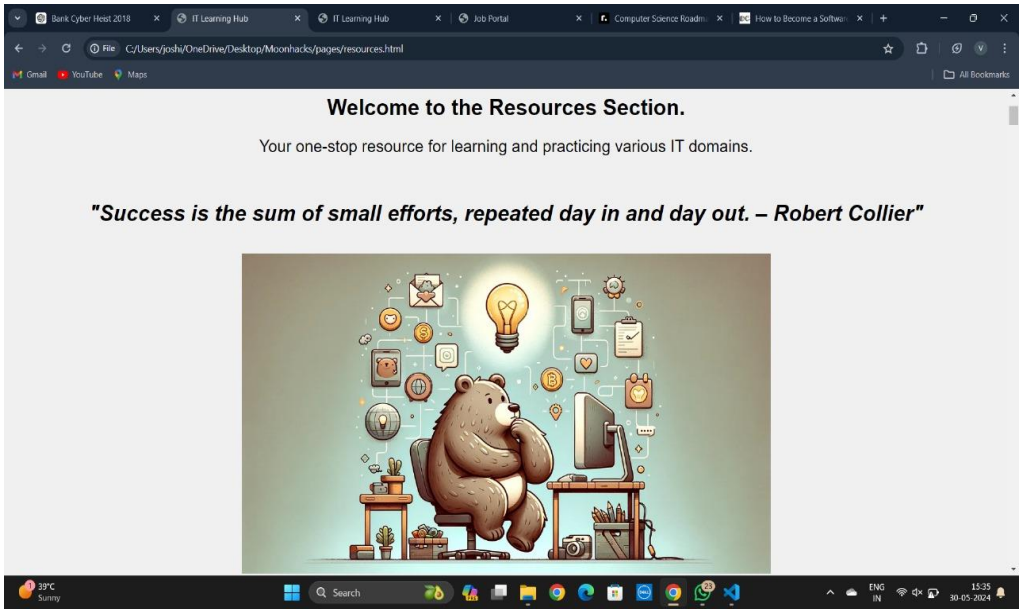


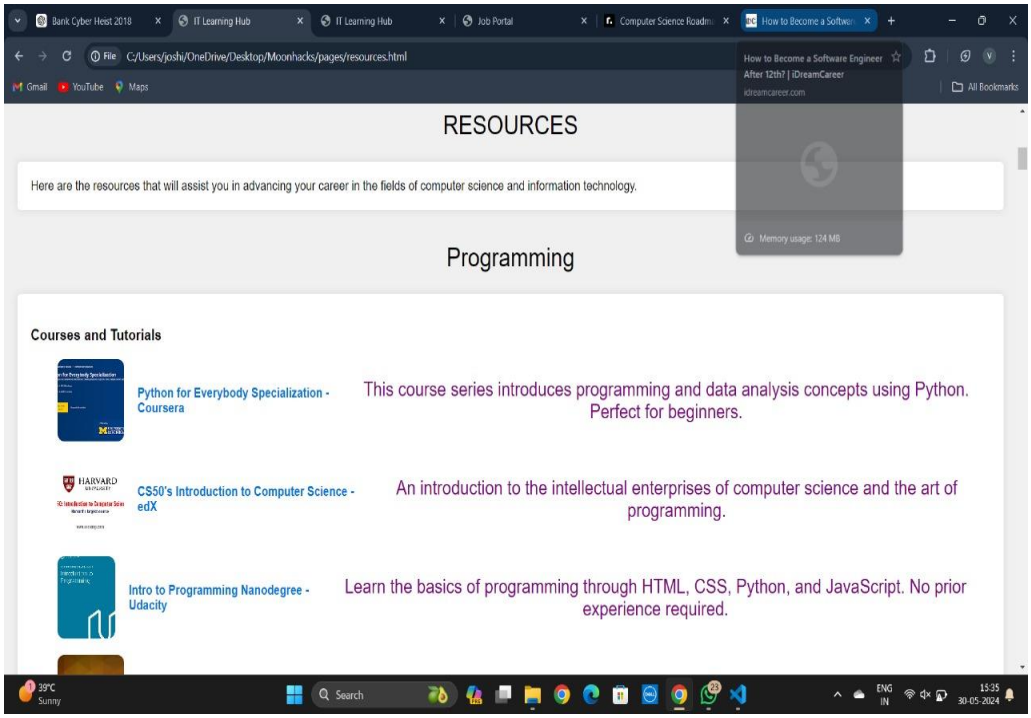
EXPLORING RESOURCES:

SELECT THE "RESOURCES" SECTION FROM THE NAVIGATION MENU.

BROWSE THROUGH DIFFERENT CATEGORIES SUCH AS COURSES, TUTORIALS, CERTIFICATIONS, YOUTUBE CHANNELS, E-BOOKS, AND PRACTICE RESOURCES.

CLICK ON A RESOURCE TO GET MORE DETAILS AND START LEARNING.




Bank Cyber Heist 2018
IT Learning Hub
IT Learning Hub
Job Portal
Computer Science Roadm
How to Become a Softwar
C:/Users/joshi/OneDrive/Desktop/Moonhacks/pages/resources.html
Gmail
YouTube
Maps
All Bookmarks
How to Become a Software Engineer After 12th? | iDreamCareer
idreamcareer.com
Memory usage: 124 MB
RESOURCES
Here are the resources that will assist you in advancing your career in the fields of computer science and information technology.
Programming
Courses and Tutorials
Python for Everybody Specialization - Coursera
This course series introduces programming and data analysis concepts using Python. Perfect for beginners.
CS50's Introduction to Computer Science - edX
An introduction to the intellectual enterprises of computer science and the art of programming.
Intro to Programming Nanodegree - Udacity
Learn the basics of programming through HTML, CSS, Python, and JavaScript. No prior experience required.
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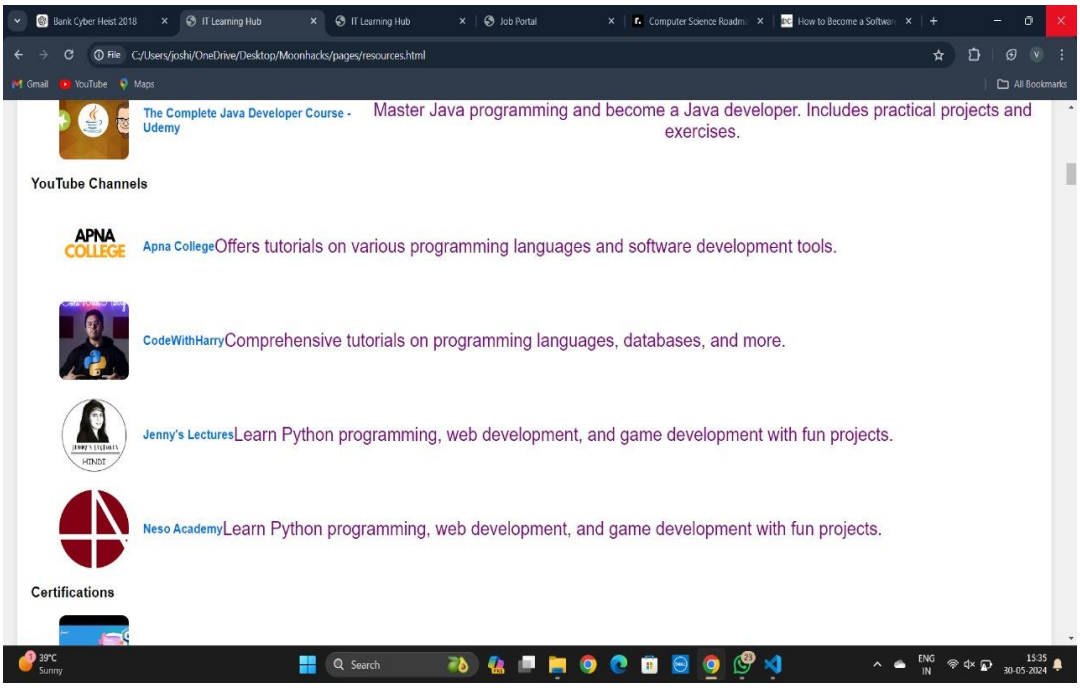
Bank Cyber Heist 2018
IT Learning Hub
IT Learning Hub
Job Portal
Computer Science Roadm
How to Become a Softwar
C:/Users/joshi/OneDrive/Desktop/Moonhacks/pages/resources.html
Gmail
YouTube
Maps
All Bookmarks
The Complete Java Developer Course - Udemy
Master Java programming and become a Java developer. Includes practical projects and exercises.
YouTube Channels
APNA COLLEGE
Apna College
Offers tutorials on various programming languages and software development tools.
CodeWithHarry
Comprehensive tutorials on programming languages, databases, and more.
Jenny's Lectures
Learn Python programming, web development, and game development with fun projects.
Neso Academy
Learn Python programming, web development, and game development with fun projects.
Certifications
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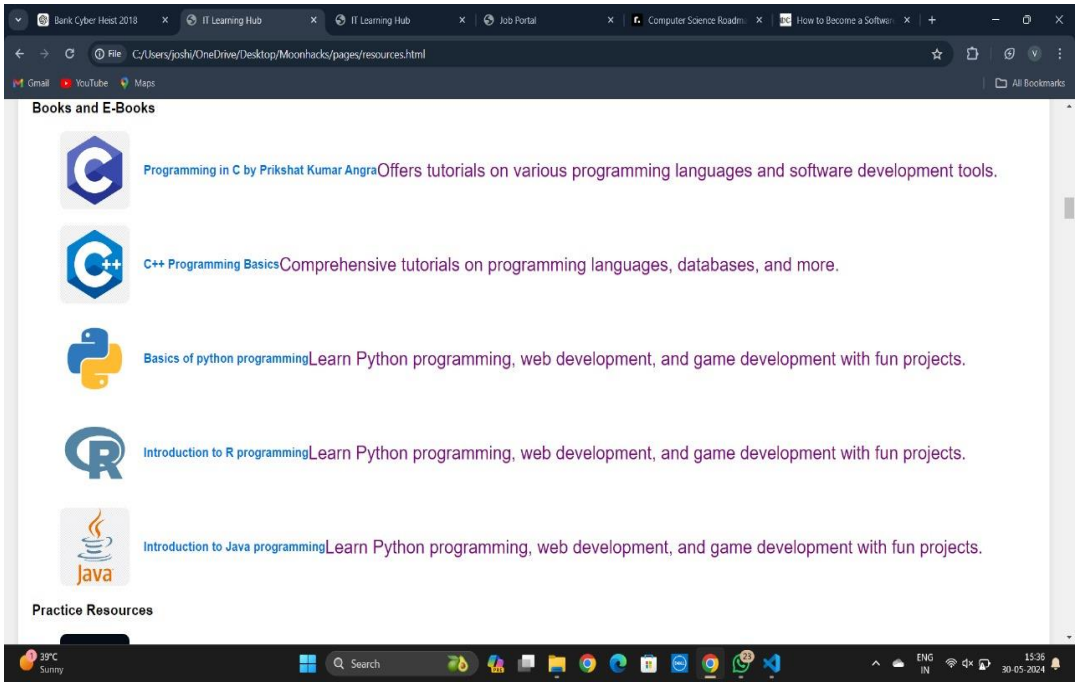
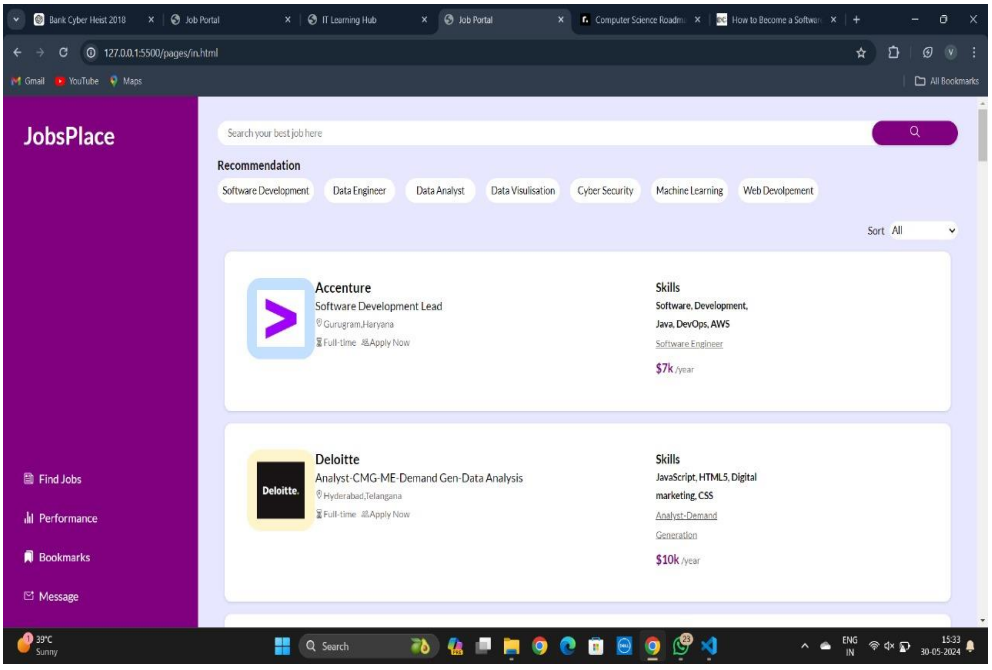


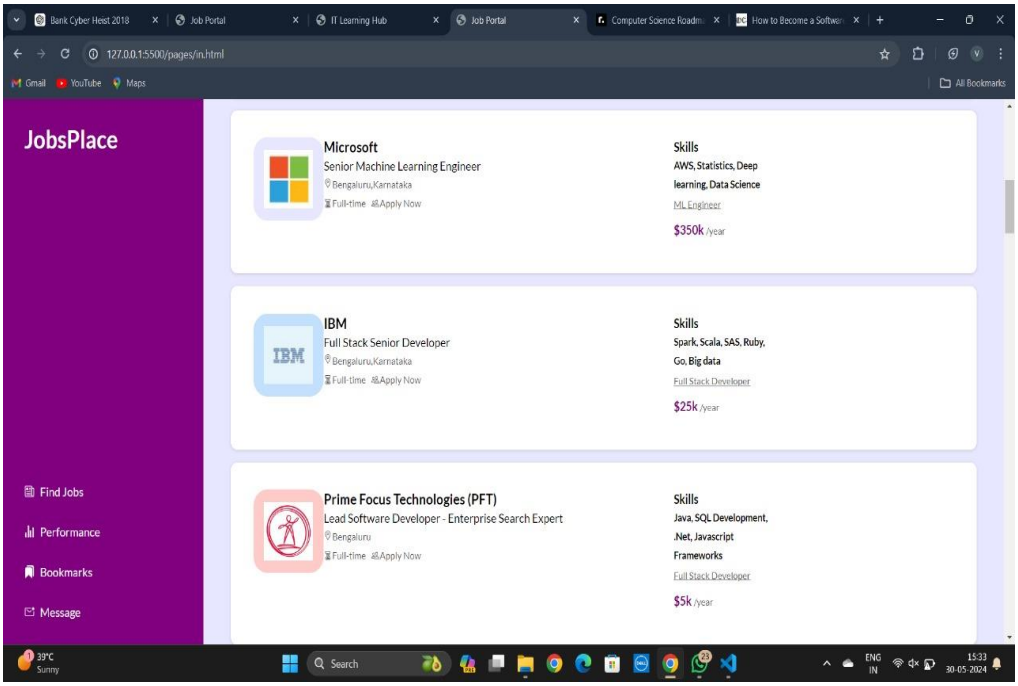
FINDING JOB OPPORTUNITIES:

SELECT THE "JOB LISTINGS AND OPPORTUNITIES" SECTION FROM THE NAVIGATION MENU.

BROWSE THROUGH THE AVAILABLE JOB LISTINGS AND INTERNSHIPS.

CLICK ON A JOB LISTING TO VIEW APPLICATION DETAILS AND REQUIREMENTS.





BY CENTRALIZING ALL THESE RESOURCES AND FEATURES IN ONE PLATFORM, TECHMAP PROVIDES AN EFFICIENT AND USER-FRIENDLY EXPERIENCE, ENSURING STUDENTS CAN FOCUS ON LEARNING AND CAREER DEVELOPMENT WITHOUT UNNECESSARY DISTRACTIONS.

FRONTEND DOCUMENTATION

FRAMEWORKS AND LIBRARIES

TECHMAP'S FRONTEND IS BUILT USING PURE HTML, CSS, AND JAVASCRIPT, WITHOUT RELYING ON ANY FRONTEND FRAMEWORKS OR LIBRARIES. THIS APPROACH PROVIDES FULL CONTROL OVER THE DESIGN AND FUNCTIONALITY OF THE WEBSITE WHILE KEEPING THE CODEBASE LIGHTWEIGHT AND OPTIMIZED FOR PERFORMANCE.

COMPONENTS

SINCE TECHMAP'S FRONTEND IS BUILT WITHOUT ANY FRAMEWORKS OR LIBRARIES, COMPONENTS ARE IMPLEMENTED USING HTML FOR STRUCTURE, CSS FOR STYLING, AND JAVASCRIPT FOR INTERACTIVITY. BELOW ARE SOME KEY FRONTEND COMPONENTS ALONG WITH THEIR USAGE EXAMPLES:

1. NAVBAR COMPONENT

DESCRIPTION: RENDERS THE NAVIGATION BAR AT THE TOP OF THE PAGE WITH LINKS TO DIFFERENT SECTIONS OF THE WEBSITE.

2. ROADMAPCARD COMPONENT

DESCRIPTION: DISPLAYS A CARD CONTAINING INFORMATION ABOUT A SPECIFIC CAREER ROADMAP.

3. RESOURCELIST COMPONENT

DESCRIPTION: RENDERS A LIST OF RESOURCES FETCHED FROM THE BACKEND API.

STYLING

TECHMAP'S FRONTEND STYLING IS IMPLEMENTED USING CSS FOR LAYOUT, TYPOGRAPHY, AND VISUAL DESIGN. BELOW IS AN EXPLANATION OF THE CSS USED AND HOW TO CUSTOMIZE STYLES:

CSS: TECHMAP FOLLOWS A MODULAR APPROACH TO STYLING, WITH SEPARATE CSS FILES FOR DIFFERENT COMPONENTS OR SECTIONS OF THE WEBSITE.

SELECTORS: CSS SELECTORS ARE USED TO TARGET SPECIFIC HTML ELEMENTS AND APPLY STYLES.

CLASS NAMES: CLASS NAMES ARE USED TO APPLY STYLES TO INDIVIDUAL ELEMENTS OR GROUPS OF ELEMENTS.

CUSTOMIZATION: TO CUSTOMIZE STYLES IN TECHMAP, SIMPLY LOCATE THE CSS FILES CORRESPONDING TO THE COMPONENT OR SECTION YOU WANT TO MODIFY. YOU CAN THEN EDIT THE STYLES DIRECTLY IN THESE FILES, ADJUSTING COLORS, FONTS, MARGINS, PADDING, AND OTHER VISUAL PROPERTIES AS NEEDED.

THIS FRONTEND DOCUMENTATION PROVIDES A DETAILED OVERVIEW OF HOW TECHMAP'S FRONTEND IS STRUCTURED, INCLUDING COMPONENTS AND STYLING. DEVELOPERS CAN REFER TO THIS DOCUMENTATION TO UNDERSTAND HOW TO WORK WITH THE FRONTEND CODEBASE, IMPLEMENT NEW FEATURES, AND CUSTOMIZE STYLES AS NEEDED.

BACKEND DOCUMENTATION

FRAMEWORKS AND LIBRARIES

OVERVIEW

SINCE THE BACKEND OF TECHMAP USES ONLY A DATABASE FOR STORING INFORMATION COLLECTED DURING USER SIGN-UPS AND DOES NOT INVOLVE ANY SPECIFIC BACKEND FRAMEWORKS OR LIBRARIES, THIS SECTION WILL FOCUS ON THE DATABASE SYSTEM USED AND BASIC INTERACTIONS.

DATABASE SYSTEM: THE PROJECT USES A RELATIONAL DATABASE SYSTEM, SUCH AS MYSQL, POSTGRESQL, OR SQLITE, TO STORE USER INFORMATION.

DATABASE SCHEMA

DESCRIPTION

THE DATABASE SCHEMA FOR TECHMAP CONSISTS OF A SINGLE TABLE TO STORE USER INFORMATION COLLECTED DURING THE SIGN-UP PROCESS. BELOW IS A DETAILED DESCRIPTION OF THE DATABASE SCHEMA, INCLUDING THE TABLE, FIELDS, AND RELATIONSHIPS.

USER TABLE

TABLE NAME: USERS

FIELDS:

ID (INT, PRIMARY KEY, AUTO INCREMENT): UNIQUE IDENTIFIER FOR EACH USER.

USERNAME (VARCHAR, NOT NULL): THE USERNAME CHOSEN BY THE USER.

EMAIL (VARCHAR, NOT NULL, UNIQUE): THE USER'S EMAIL ADDRESS.

PASSWORD_HASH (VARCHAR, NOT NULL): HASHED PASSWORD FOR USER AUTHENTICATION.

FIRST_NAME (VARCHAR, NOT NULL): THE USER'S FIRST NAME.

LAST_NAME (VARCHAR, NOT NULL): THE USER'S LAST NAME.

CREATED_AT (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP): THE TIMESTAMP WHEN THE USER WAS CREATED.

UPDATED_AT (TIMESTAMP, DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP): THE TIMESTAMP WHEN THE USER'S INFORMATION WAS LAST UPDATED.

SQL SCHEMA DEFINITION:

CREATE TABLE USERS (

```
    ID INT PHONENO. PRIMARY KEY,
    USERNAME VARCHAR(50) NOT NULL,
    EMAIL VARCHAR(100) NOT NULL UNIQUE,
    PASSWORD_HASH VARCHAR(255) NOT NULL,
    FIRST_NAME VARCHAR(50) NOT NULL,
    LAST_NAME VARCHAR(50) NOT NULL
);
```

RELATIONSHIPS:

AS THE BACKEND FOR THIS PROJECT ONLY INCLUDES USER SIGN-UP DATA, THERE ARE NO ADDITIONAL TABLES OR COMPLEX RELATIONSHIPS IN THE DATABASE SCHEMA. THE USERS TABLE STANDS ALONE AND IS USED TO STORE AND MANAGE USER INFORMATION.

THIS DOCUMENTATION PROVIDES A CLEAR AND CONCISE OVERVIEW OF THE BACKEND SETUP FOR TECHMAP, FOCUSING ON THE DATABASE SYSTEM USED AND THE SCHEMA FOR STORING USER INFORMATION. IT INCLUDES ALL NECESSARY DETAILS TO UNDERSTAND THE STRUCTURE AND PURPOSE OF THE DATABASE WITHIN THE PROJECT.

BUILD AND DEPLOYMENT

BUILD PROCESS

INSTRUCTIONS FOR BUILDING THE PROJECT

SINCE TECHMAP'S FRONTEND IS BUILT USING ONLY HTML, CSS, AND JAVASCRIPT, THE BUILD PROCESS IS STRAIGHTFORWARD AND DOESN'T REQUIRE COMPLEX BUILD TOOLS.

ENSURE FILE ORGANIZATION: MAKE SURE ALL YOUR HTML, CSS, AND JAVASCRIPT FILES ARE CORRECTLY ORGANIZED IN THE PROJECT'S DIRECTORY STRUCTURE.

MINIFY CSS AND JAVASCRIPT (OPTIONAL): FOR BETTER PERFORMANCE, YOU MAY WANT TO MINIFY YOUR CSS AND JAVASCRIPT FILES. TOOLS LIKE UGLIFYJS FOR JAVASCRIPT AND CSSNANO FOR CSS CAN BE USED.

BUNDLE ASSETS (OPTIONAL): IF YOU'RE USING MULTIPLE JAVASCRIPT AND CSS FILES, CONSIDER BUNDLING THEM USING TOOLS LIKE WEBPACK OR PARCEL.

BUILD COMMANDS:

IF YOU'RE USING MINIFICATION AND BUNDLING TOOLS, RUN THE APPROPRIATE COMMANDS FOR THOSE TOOLS. EXAMPLE COMMANDS MIGHT LOOK LIKE:

UGLIFYJS SRC/JS/*.JS -O DIST/JS/APP.MIN.JS

CSSNANO SRC/CSS/*.CSS -O DIST/CSS/STYLES.MIN.CSS

STATIC FILES: ENSURE THAT ALL STATIC ASSETS (IMAGES, FONTS, ETC.) ARE PLACED IN THE APPROPRIATE DIRECTORIES.

DEPLOYMENT STEPS

DETAILED STEPS FOR DEPLOYING THE PROJECT

CHOOSE A HOSTING PROVIDER: SELECT A HOSTING PROVIDER LIKE GITHUB PAGES, NETLIFY, VERCEL, OR A TRADITIONAL WEB SERVER LIKE APACHE OR NGINX.

PREPARE DEPLOYMENT FILES: ENSURE ALL FILES ARE READY FOR DEPLOYMENT, TYPICALLY LOCATED IN THE DIST/ DIRECTORY AFTER THE BUILD PROCESS.

DEPLOY TO DEVELOPMENT ENVIRONMENT:

IF USING A SERVICE LIKE NETLIFY OR VERCEL, YOU CAN CONNECT YOUR REPOSITORY, AND IT WILL AUTOMATICALLY DEPLOY THE LATEST CHANGES.

FOR GITHUB PAGES:

PUSH YOUR CODE TO A GITHUB REPOSITORY.

IN THE REPOSITORY SETTINGS, ENABLE GITHUB PAGES AND SELECT THE BRANCH AND DIRECTORY (E.G., MAIN BRANCH AND /DIST DIRECTORY).

FOR TRADITIONAL WEB HOSTING:

UPLOAD THE CONTENTS OF THE DIST/ DIRECTORY TO YOUR SERVER USING FTP, SCP, OR ANY FILE TRANSFER METHOD SUPPORTED BY YOUR HOSTING PROVIDER.

DEPLOY TO STAGING ENVIRONMENT (IF APPLICABLE):

FOLLOW SIMILAR STEPS AS FOR THE DEVELOPMENT ENVIRONMENT BUT ENSURE YOU ARE DEPLOYING TO A STAGING-SPECIFIC ENVIRONMENT OR SUBDOMAIN.

DEPLOY TO PRODUCTION ENVIRONMENT:

ENSURE ALL CHANGES ARE THOROUGHLY TESTED IN THE DEVELOPMENT AND STAGING ENVIRONMENTS.

FOLLOW THE SAME DEPLOYMENT STEPS USED FOR DEVELOPMENT BUT DEPLOY TO THE PRODUCTION ENVIRONMENT OR MAIN DOMAIN.

CI/CD SETUP

CONTINUOUS INTEGRATION/CONTINUOUS DEPLOYMENT SETUP AND WORKFLOWS

SETTING UP A CI/CD PIPELINE ENSURES AUTOMATED TESTING AND DEPLOYMENT OF YOUR PROJECT. HERE'S A BASIC SETUP USING GITHUB ACTIONS:

STEPS EXPLANATION:

CHECKOUT REPOSITORY: CHECKS OUT THE CODE FROM THE REPOSITORY.

SETUP NODE.JS: SETS UP NODE.JS ENVIRONMENT (IF YOU ARE USING NODE.JS FOR ANY BUILD STEPS).

INSTALL DEPENDENCIES: INSTALLS ANY NECESSARY DEPENDENCIES.

BUILD PROJECT: RUNS THE BUILD PROCESS (EXAMPLE SHOWN FOR PROJECTS USING NPM SCRIPTS).

DEPLOY TO GITHUB PAGES: DEPLOYS THE DIST/ DIRECTORY TO GITHUB PAGES.

CONFIGURATION FOR OTHER SERVICES:

FOR NETLIFY: ADD A NETLIFY.TOML FILE AND CONFIGURE BUILD SETTINGS IN THE NETLIFY DASHBOARD.

FOR VERCEL: CONFIGURE THE PROJECT IN THE VERCEL DASHBOARD, LINKING YOUR REPOSITORY AND SPECIFYING THE BUILD COMMAND AND OUTPUT DIRECTORY.

FOR TRADITIONAL HOSTING, INTEGRATE FTP/SCP DEPLOYMENT STEPS INTO YOUR CI WORKFLOW USING APPROPRIATE GITHUB ACTIONS OR OTHER CI TOOLS.

BY FOLLOWING THESE INSTRUCTIONS, YOU CAN SET UP A ROBUST BUILD AND DEPLOYMENT PIPELINE FOR TECHMAP, ENSURING THAT YOUR WEBSITE IS ALWAYS UP-TO-DATE AND DEPLOYED EFFICIENTLY TO VARIOUS ENVIRONMENTS.

APPENDIX

Additional Resources

Here are some additional resources that might be helpful for further understanding and contributing to the TechMap project:

HTML Documentation: MDN Web Docs: HTML

CSS Documentation: MDN Web Docs: CSS

JavaScript Documentation: MDN Web Docs: JavaScript

Git and GitHub:

Pro Git Book

GitHub Guides

Web Development Roadmaps: Roadmap.sh

Frontend Libraries: React Documentation (if you plan to extend the project with a library in the future)

Database Management:

SQL Tutorials

MongoDB Documentation (if you decide to use NoSQL databases in the future)

Glossary

Glossary of Terms Used in the Project:

HTML (Hypertext Markup Language): The standard markup language for documents designed to be displayed in a web browser.

CSS (Cascading Style Sheets): A style sheet language used for describing the presentation of a document written in HTML or XML.

JavaScript: A programming language commonly used in web development to create interactive effects within web browsers.

Frontend: The part of a website or web application that users interact with directly. It includes HTML, CSS, and JavaScript.

Backend: The server-side part of a web application. It includes server, database, and application logic.

Database Schema: The structure of a database, described in a formal language, including tables, fields, and relationships.

Unit Test: A type of software testing where individual units or components of a software are tested.

Integration Test: A type of software testing where individual units are combined and tested as a group.

End-to-End (E2E) Test: Testing the complete flow of an application from start to finish to ensure it behaves as expected.

Continuous Integration (CI): A development practice where developers integrate code into a shared repository frequently, each integration being verified by automated tests.

Continuous Deployment (CD): A software release process where code changes are automatically deployed to production.

REFERENCES

References to External Documentation, Articles, or Books:

"Pro Git" by Scott Chacon and Ben Straub: Pro Git Book

"Eloquent JavaScript" by Marijn Haverbeke: Eloquent JavaScript

"You Don't Know JS" (book series) by Kyle Simpson: You Don't Know JS

"JavaScript: The Good Parts" by Douglas Crockford: A foundational book on JavaScript best practices.

Mozilla Developer Network (MDN):

HTML Documentation

CSS Documentation

JavaScript Documentation

Web Development Blogs and Articles:

CSS-Tricks

Smashing Magazine

A List Apart

BY UTILIZING THESE ADDITIONAL RESOURCES, GLOSSARY DEFINITIONS, AND REFERENCES, CONTRIBUTORS AND USERS CAN BETTER UNDERSTAND THE TECHMAP PROJECT AND THE TECHNOLOGIES IT EMPLOYS.