



**UNIVERSITY INSTITUTE OF COMPUTING**

**DIVISION- MCA/BCA/BSc(CS)**

## **Portfolio Website**

### **PROJECT REPORT**

*Submitted by*

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**MASTER'S OF COMPUTER APPLICATION**

**IN**

Computer Applications



**CHANDIGARH  
UNIVERSITY**

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**Chandigarh University**

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## Portfolio Website

### *1. Introduction*

In the digital age, an online presence is paramount for professionals seeking to showcase their skills, experiences, and projects. A portfolio website serves as a dynamic resume, providing a centralized platform to highlight one's expertise, attract potential clients or employers, and facilitate networking opportunities. This project focuses on designing and developing a responsive, visually appealing portfolio website that effectively presents technical skills, past projects, services offered, and provides an intuitive means of contact. The website aims to blend aesthetics with functionality, ensuring a seamless user experience across various devices while maintaining a professional and modern appearance.

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### *2. Project Overview*

**Objective:** The primary objective of this project is to create a professional and engaging online portfolio that effectively showcases technical skills, past projects, and services offered. The website is designed to represent a personal brand, serve as an interactive resume, and provide an accessible platform for potential clients or employers to connect. It consolidates achievements and professional information in a structured, user-friendly format, enhancing visibility and credibility in the competitive digital landscape.

### **Technologies Used:**

- **HTML5:** For structuring the website's content, including headers, sections, navigation, and forms.
- **CSS3:** For styling the layout, colors, fonts, and ensuring responsiveness across different devices.
- **JavaScript:** To add interactivity, such as navigation menu toggling, tab switching in the "About" section, and handling form submissions.
- **Google Apps Script:** For integrating the contact form with Google Sheets, enabling the storage of form responses without a traditional backend.
- **Font Awesome:** For incorporating stylish icons that enhance the visual appeal of services, contact details, and social media links.

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### *3. Website Structure and Content*

The website is meticulously divided into several key sections, each designed to convey specific aspects of the portfolio:

## 1. Header Section:

- **Background Video:** A full-screen, looping video serves as the background, creating a dynamic and engaging visual introduction. This element adds sophistication and sets a professional tone for the website.
- **Navigation Menu:** The navigation menu includes links to Home, About, Services, Projects, and Contact sections. It ensures easy access to different parts of the website, enhancing user navigation.
- **Responsive Menu:** On smaller screens, a hamburger menu icon appears, allowing users to toggle the visibility of a side menu. This feature ensures the website remains user-friendly on mobile devices.
- **Header Text:** A prominent introductory message displays the individual's name and professional title, providing an immediate and impactful introduction to visitors.

## 2. About Section:

- **Introduction:** This section offers a comprehensive overview of the individual's professional background, emphasizing skills, motivation, and commitment to continuous learning. It highlights problem-solving abilities and dedication to quality, which are crucial traits for potential clients or employers.
- **Tabbed Content (Skills, Experience, Education):** Organized into three tabs for streamlined access:
  - **Skills Tab:** Enumerates key technical skills, including programming languages, technologies, and other relevant areas of expertise.
  - **Experience Tab:** Details past professional experiences, including training, internships, or relevant job roles.
  - **Education Tab:** Lists educational qualifications, providing context and credibility to the skills presented.

## 3. Services Section:

- **Professional Services:** This section outlines the various services offered, each accompanied by an icon, title, and descriptive text:
  - **Android Development:** Describes proficiency in creating Android applications, focusing on UI design, data management, and secure databases.
  - **Flutter Development:** Highlights experience with Flutter and state management tools, indicating self-driven learning and adaptability.
  - **Database Management:** Showcases expertise in managing different types of databases (Firebase, MongoDB, MySQL), tailored to project-specific requirements.
- **Icons and Descriptions:** Icons provide a visual representation of each service, while descriptions offer insights into capabilities, reassuring potential clients of technical proficiency.

## 4. Projects Section:

- **Showcase of Completed Projects:** This section features a selection of completed projects, each presented within a "work" div that includes:
  - **Project Image:** A visual representation of the project, providing an immediate visual cue to visitors.
  - **Hover Effect:** On hovering over the project image, a description overlay appears, summarizing project details.
  - **Titles and Descriptions:** Each project includes a title and a brief summary, detailing the technology stack used and project objectives. Examples include:
    - **Web Application using Java:** A social media clone utilizing Firebase for authentication and data handling.
    - **Retro Runner:** A game inspired by classic platforms, developed using Pygame to demonstrate game development skills.
    - **Healthcare Chatbot:** An upcoming project leveraging Python and Langchain for creating an intelligent chatbot.

- **See More Button:** A call-to-action button encourages users to explore additional projects, fostering deeper engagement.

## 5. Contact Section:

- **Contact Information:** Provides essential contact details, including email, phone number, and LinkedIn profile, facilitating easy communication.
- **Contact Form:** A user-friendly form allows visitors to send messages directly. It includes fields for Name, Email, and Message, ensuring relevant information is captured.
- **Social Icons:** Links to LinkedIn and other social media platforms enable further professional connections.
- **Google Apps Script Integration:** The form is integrated with Google Sheets via Google Apps Script, enabling form submissions to be stored without the need for a backend server. A confirmation message is displayed upon successful submission, enhancing user feedback.

## 6. Footer Section:

- **Copyright Message:** Reinforces ownership of the website's content.
- **Personal Touch:** A "Made with ♥" statement adds a friendly and personal element to the footer, making the website feel more approachable.

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## 4. Key Features

### 1. Tabbed Interface in About Section:

- The tabbed layout organizes content into distinct categories (Skills, Experience, Education), allowing users to navigate information efficiently. JavaScript manages the activation of each tab, ensuring only the relevant content is displayed at any given time.

### 2. Background Video Integration:

- A looping background video in the header enhances visual appeal and creates an immersive experience for visitors. This feature contributes to a modern and dynamic first impression, setting the tone for the rest of the website.

### 3. Responsive Design with Dynamic Navigation:

- The navigation menu adapts to different screen sizes, with a hamburger icon appearing on smaller devices to toggle a side menu. JavaScript functions `openmenu` and `closemenu` control the visibility of the side menu, ensuring intuitive navigation on both desktop and mobile platforms.

### 4. Form Submission and Google Apps Script Integration:

- The contact form utilizes Google Apps Script to send form data to Google Sheets, providing a serverless solution for handling submissions. This integration simplifies data management and eliminates the need for a traditional backend, making it ideal for static websites. A success message is displayed upon form submission, providing immediate feedback to users.

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## 5. JavaScript Functionality

JavaScript plays a pivotal role in enhancing the interactivity and user experience of the portfolio website through the following functionalities:

### 1. Tab Switching (`opentab` Function):

- The `opentab(tabname)` function is triggered when a user clicks on a tab in the About section. It removes the "active" class from all tab links and tab contents, then adds the "active" class to the selected tab and corresponding content. This ensures that only the relevant information is displayed, maintaining a clean and organized interface.

## 2. Responsive Navigation Toggle (`openmenu` and `closemenu` Functions):

- The `openmenu` function sets the `right` property of the side menu to `0`, making it visible on the screen. Conversely, the `closemenu` function sets the `right` property to `-200px`, hiding the menu. These functions are bound to the hamburger and close icons, respectively, enabling users to easily navigate the website on mobile devices.

## 3. Form Submission Handling:

- JavaScript handles the form submission process asynchronously using the `fetch` API. When the form is submitted, the default behavior is prevented, and the form data is sent to a specified Google Apps Script URL. Upon successful submission, a confirmation message is displayed to the user, and the form fields are reset. Error handling is also implemented to log any issues that occur during the submission process.

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## 6. CSS Styling

**File:** `style.css`

### Styling Highlights:

- **Responsive Design:** Utilizes media queries to ensure the website adapts seamlessly to various screen sizes, maintaining usability and aesthetics on desktops, tablets, and mobile devices.
- **Color Scheme and Typography:** A modern and cohesive color palette is employed, complemented by readable and professional fonts. Consistent use of colors and typography enhances the visual appeal and reinforces the personal brand.
- **Layout and Spacing:** Thoughtful layout design and spacing ensure that content is well-organized and easily digestible. Elements are strategically positioned to guide the user's eye and facilitate smooth navigation.
- **Buttons and Icons:** Styled for uniformity and ease of interaction, buttons and icons are designed to stand out while maintaining harmony with the overall design theme. Hover effects and transitions add subtle interactivity.
- **Animations and Effects:** Subtle animations, such as hover effects on project images and smooth transitions for the navigation menu, contribute to a dynamic and engaging user experience without overwhelming the visitor.

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## 7. Code Snippet

### HTML Code Snippet:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Aman's portfolio</title>
  <link rel="stylesheet" href="style.css">
  <script src="https://kit.fontawesome.com/5d7280af83.js" crossorigin="anonymous"></script>

</head>
```

```

<body>
<div id="header">
  <div class="container">
    <div class="background-video">
      <video autoplay loop muted>
        <source src="images/856356-hd_1920_1080_25fps.mp4" type="video/mp4">
      </video>
    </div>
  </div>
  <nav>

    <ul id="sidemenu">
      <li><a href="#header">Home</a></li>
      <li><a href="#about">About</a></li>
      <li><a href="#services">Services</a></li>
      <li><a href="#projects">Projects</a></li>
      <li><a href="#contact">Contact</a></li>
      <i class="fa-solid fa-circle-xmark" onclick="closemenu()"></i>
    </ul>
    <i class="fa-solid fa-bars" onclick="openmenu()"></i>
  </nav>
  <div class="header-text">
    <p>Hey, I am</p>
    <h1><span>Aman Kumar</span></h1>
    <p>Software Developer</p>
  </div>
</div>
</div>
<!-- ABOUT SECTION -->
<div id="about">
  <div class="container">
    <div class="row">
      <div class="about-col-1">

      </div>
      <div class="about-col-2">
        <h1 class="sub-title">About Me</h1>
        <p class="about-text">A highly motivated graduate excelling in software development and team
collaboration. Swiftly masters new
and          skills, solves complex problems, and delivers high-quality projects. Committed to continuous learning
          leveraging technical expertise to drive innovation and achieve outstanding results.</p>

        <div class="tab-titles">
          <p class="tab-links active-link" onclick="opentab('skills')">Skills</p>
          <p class="tab-links" onclick="opentab('experience')">Experience</p>
          <p class="tab-links" onclick="opentab('education')">Education</p>
        </div>
        <div class="tab-contents active-tab" id="skills">
          <ul>
            <li><span>Programming Language</span><br>Core Java, Advance Java -Servlet, JSP, JDBC- , SQL,
HTML, CSS</li>
            <li><span>Technologies</span><br>Linux</li>
            <li><span>Others</span><br>Data Structures, Object-Oriented Programming</li>
          </ul>
        </div>
        <div class="tab-contents" id="experience">
          <ul>
            <li><span>Sept 2023 - Oct 2023</span><br>Industrial Training</li>

```

```

        </ul>
    </div>
    <div class="tab-contents" id="education">
        <ul>
            <li><span>Master's</span><br>Master's in Computer Applications<br><i>2024 -
CURRENT</i></li>
            <li><span>Bachelor's</span><br>Bachelor's in Computer Applications<br><i>2021 - 2024</i></li>
            <li><span>Senior Secondary Education</span><br>St. Karens Senior Secondary School<br><i>2019
- 2021</i></li>
        </ul>
    </div>
</div>
</div>
</div>
</div>
<!-- SERVICES SECTION -->
<div id="services">
    <div class="container">
        <h1 class="sub-title">My Services</h1>
        <div class="services-list">
            <div>
                <i class="fa-brands fa-android"></i>
                <h2>ANDROID DEVELOPMENT</h2>
                <p>Developing full stack android application. Excelling in UI and secure and understandable management
of data using different types of databases.</p>
            </div>
            <div>
                <i class="fa-solid fa-mobile-screen-button"></i>
                <h2>FLUTTER DEVELOPMENT</h2>
                <p>Since college experimented a lot with flutter. Self taught GetX, Provider etc and implemented to real
life problems.</p>
            </div>
            <div>
                <i class="fa-solid fa-database"></i>
                <h2>DATABASE MANAGEMENT</h2>
                <p>Different types of databases can be used as per the requirements of project and ask of clients.
Implemented Firebase, MongoDB, MySQL</p>
            </div>
        </div>
    </div>
</div>
</div>
</div>

```

### CSS Code Snippet:

```

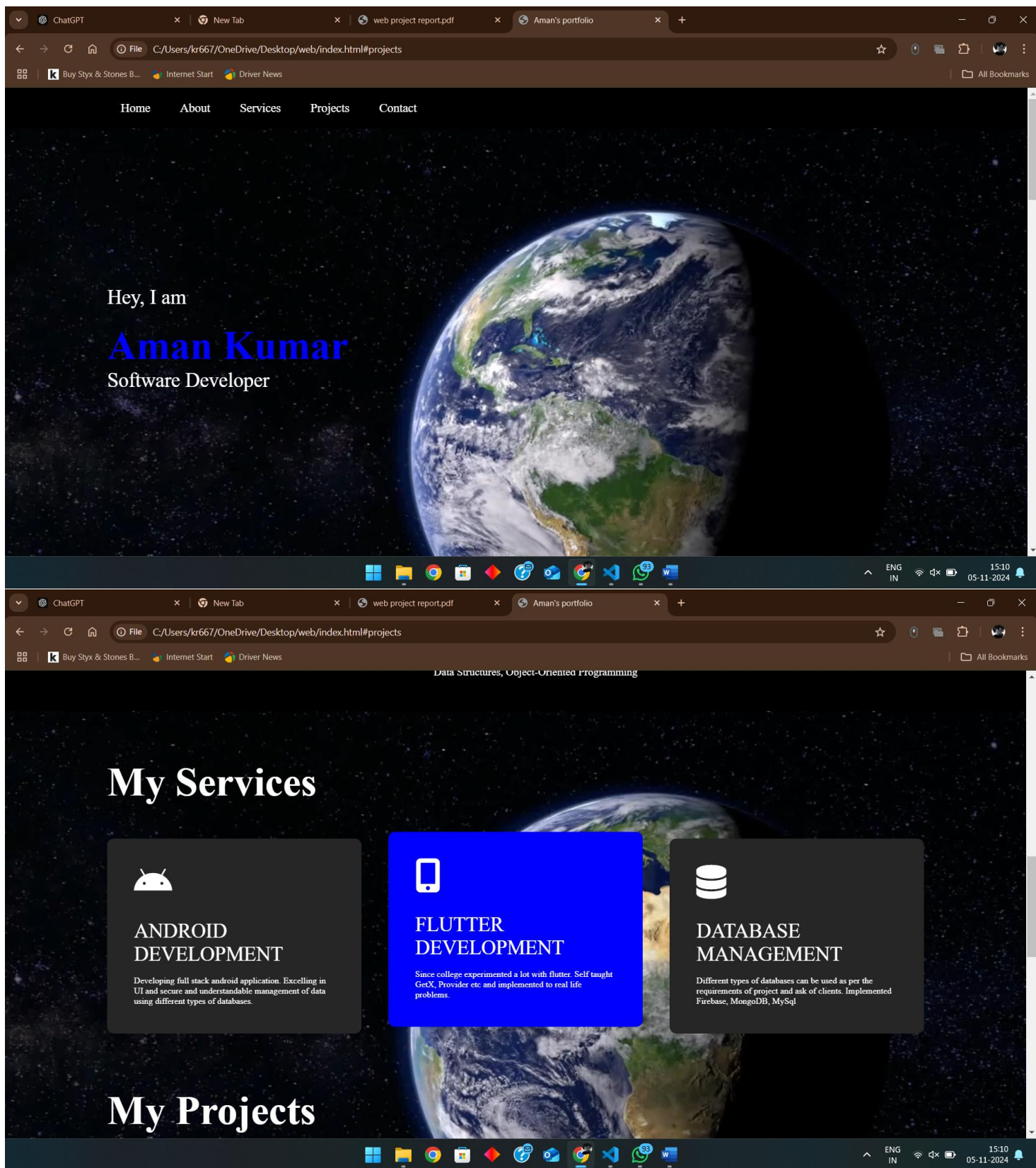
*{
    margin: 0;
    padding: 0;
    box-sizing: border-box;
}
html{
    scroll-behavior: smooth;
}
body{
    background: #080808;
    color: #fff;
}
#header{
    width: 100%;

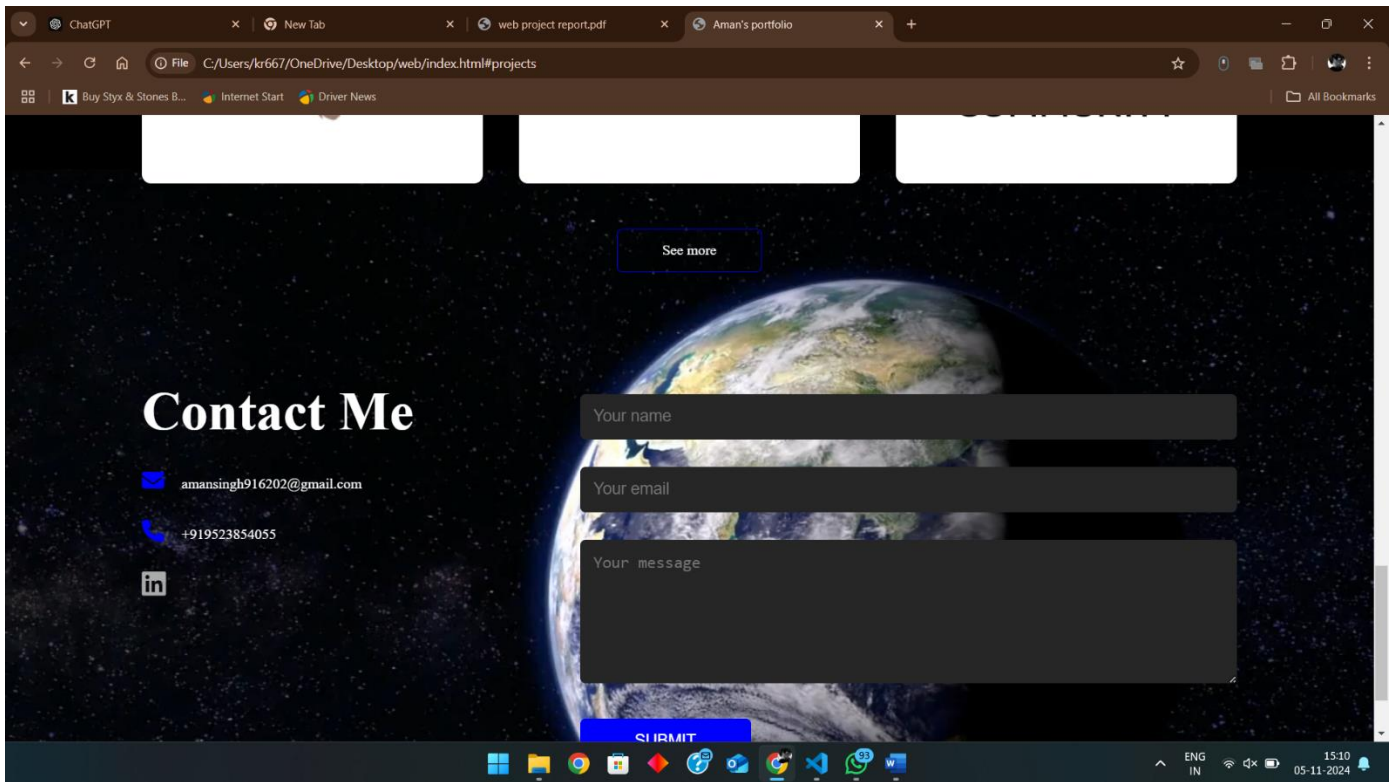
```

```
    height: 100vh;
}
.background-video {
    position: fixed;
    top: 0;
    left: 0;
    width: 100vw;
    height: 100vh;
    overflow: hidden;
    z-index: -1;
}
.background-video video {
    min-width: 100%;
    min-height: 100%;
    width: auto;
    height: auto;
    object-fit: cover;
}
.container{
    padding: 10px 10%;
}
nav{
    display: flex;
    align-items: center;
    justify-content: space-between;
    flex-wrap: wrap;
}
.logo{
    width: 180px;
}
nav ul li{
    display: inline-block;
    list-style: none;
    margin: 10px 20px;
}
nav ul li a{
    color: #fff;
    text-decoration: none;
    font-size: 18px;
    position: relative;
}
nav ul li a::after{
    content: "";
    width: 0;
    height: 3px;
    background: #0000ff;
    position: absolute;
    left: 0;
    bottom: -6px;
    transition: 0.5s;
}
nav ul li a:hover::after{
    width: 100%;
}
.header-text{
    margin-top: 20%;
    font-size: 30px;
}
```



## 8. Output





## 9. *External Resources*

- **Font Awesome:** Integrated via a CDN to provide a wide range of scalable icons used throughout the website. These icons enhance visual communication for services, contact information, and social media links.
- **Google Apps Script:** Utilized to handle form submissions by sending data to Google Sheets. This integration offers a straightforward method for managing contact form responses without the need for a dedicated backend server.
- **Background Video:** A high-quality video file is used for the header background, adding a dynamic and professional visual element to the website's introduction.

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## 10. *Future Improvements*

While the current portfolio website effectively meets its objectives, several enhancements can be considered to elevate its functionality and user experience further:

### 1. **Expanded Projects Section:**

- Adding more project entries with detailed descriptions and case studies can provide a comprehensive view of expertise and versatility. Incorporating filters or categories could also help users navigate projects based on their interests.

### 2. **Advanced Form Validation:**

- Implementing additional form validation rules, such as checking for valid email formats or limiting message length, can improve the reliability and user-friendliness of the contact form.

### 3. **Performance Optimization:**

- Optimizing media assets, such as compressing video and image files, can enhance page load times. Implementing lazy loading for images and asynchronous loading for scripts can further improve performance.
- 4. **SEO Enhancement:**
  - Incorporating search engine optimization (SEO) best practices, including meta tags, descriptive URLs, and alt texts for images, can increase the website's visibility in search engine results, attracting more visitors.
- 5. **Analytics Integration:**
  - Adding tools like Google Analytics can provide valuable insights into user behavior, traffic sources, and engagement metrics. This data can inform future improvements and marketing strategies.
- 6. **Interactive Elements:**
  - Introducing interactive elements such as sliders, lightboxes for project images, or animated infographics can make the website more engaging and interactive for visitors.
- 7. **Blog Section:**
  - Adding a blog can allow the individual to share insights, tutorials, and updates, further establishing authority in their field and improving SEO through regularly updated content.
- 8. **Dark Mode Toggle:**
  - Implementing a dark mode option can enhance user experience by providing an alternative color scheme that reduces eye strain and caters to user preferences.

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## 11. Conclusion

The development of this portfolio website marks a significant achievement in establishing a robust digital presence that effectively showcases professional capabilities and personal brand. The website seamlessly integrates aesthetic design with functional elements, creating a platform that is both visually appealing and highly functional. By incorporating a dynamic background video, responsive navigation, and an organized structure, the website offers an engaging user experience that caters to a wide range of visitors, from potential employers to prospective clients.

The structured layout, divided into clearly defined sections—Header, About, Services, Projects, Contact, and Footer—ensures that information is presented in a logical and accessible manner. The About section's tabbed interface allows for efficient navigation through skills, experience, and education, highlighting key qualifications without overwhelming the user. The Services section effectively communicates the range of offerings, supported by relevant icons that enhance visual comprehension. The Projects section serves as a testament to practical experience and technical proficiency, with each project thoughtfully presented to demonstrate a breadth of skills and successful outcomes.

JavaScript functionality enhances interactivity, enabling smooth navigation and user engagement through features like tab switching and responsive menu toggling. The integration of Google Apps Script for form submissions exemplifies a practical, serverless approach to handling user interactions, ensuring that contact data is managed efficiently and securely.

From a design perspective, the use of CSS ensures that the website is not only aesthetically pleasing but also responsive, catering to users on various devices and screen sizes. The consistent color scheme, typography, and layout contribute to a cohesive and professional appearance, reinforcing the individual's personal brand.

Looking ahead, the foundation laid by this portfolio website provides ample opportunities for future enhancements and scalability. Implementing additional features such as advanced form validation, performance optimizations, SEO strategies, and interactive elements can further elevate the website's functionality and user experience. Moreover, integrating analytics and expanding content offerings, like a blog, can drive greater engagement and provide deeper insights into user behavior and preferences.

In conclusion, this portfolio website successfully fulfills its intended purpose of serving as a comprehensive digital showcase for professional skills, experiences, and services. It stands as a versatile platform that not only highlights past achievements but also sets the stage for future growth and opportunities. By combining thoughtful design with robust functionality, the website effectively positions its owner as a competent and motivated professional in their field, ready to connect with potential collaborators, clients, and employers.