# VET INSTITUTE OF ARTS AND SCIENCE COLLEGE ERODE - 12.



# DEPARTMENT OF COMPUTER SCIENCE

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# VET Institute of Arts and Science

(Co-Education College)
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Orientation Program of MERN Stack-Web Development

On

"Passport Application Form"

**Master of Science in Computer Science** 

Submitted by

**SANJAY G** 

Under the guidance of

Internal Guide External Guide

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#### **Declaration**

I hereby declare that the internship report titled "Passport Application Form "submitted to the Department of Computer Science, VET Institute of Arts and Science (Coeducation) College, is a record of original work done by me, SANJAY G, during the internship period from 08.08.2024 to 14.08.2024 at XPLORE IT CORP. This report has not been submitted to any other institution for the award of any degree or diploma.

I have acknowledged all the sources of information used in the preparation of this report. The work presented in this report is my own and does not contain any content copied from other reports or sources without proper citation.

**SANJAY G** 

Acknowledgment

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#### **Abstract**

**Purpose:** This document serves as a formal request for a passport, a travel document issued by a government to its citizens to allow them to travel to and from foreign countries.

**Contents:** The form typically includes:

- **Personal Information:** Name, date of birth, place of birth, nationality, and address.
- **Identification:** Proof of identity, such as a birth certificate, driver's license, or national identity card.
- **Photographs:** Two or more recent passport-sized photographs.
- **Declaration:** A statement affirming the accuracy of the information provided and acknowledging the penalties for false statements.
- **Signature:** The applicant's signature.
- Additional Information: May include details about previous passports, travel history, or any special circumstances.

**Process:** After completing the form, applicants typically need to submit it along with supporting documents to a designated government office or embassy.

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# **Chapter 1: Introduction**

#### 1.1 Background:

VET Institute of Arts and Science College is a renowned educational institution dedicated to offering quality education in Arts, Science, Commerce, and Management. We aim to provide students with a well-rounded education and prepare them for successful careers.

#### **Programs Offered:**

- Undergraduate Degrees:
  - o Bachelor of Arts (BA)
  - o Bachelor of Science (BSc)
  - o Bachelor of Commerce (BCom)
  - Bachelor of Business Administration (BBA)
- Postgraduate Degrees:
  - Master of Arts (MA)
  - Master of Science (MSc)
  - Master of Commerce (MCom)
  - Master of Business Administration (MBA)

#### **Facilities:**

- Classrooms: Modern and equipped with the latest technology.
- Library: Extensive collection of books and digital resources.
- Laboratories: Well-equipped for science and computer studies.
- Auditorium: Space for events, seminars, and activities.
- Sports: Gym, sports fields, and indoor games.

#### **Faculty:**

Our experienced and dedicated teachers provide high-quality education and guidance to help students succeed.

#### **Student Life:**

- Cultural Activities: Music, dance, and drama events.
- Sports: Various physical activities and competitions.
- Clubs: Interest-based clubs for extra-curricular engagement.

#### **Admissions:**

- Eligibility: Varies by program. Check our website for details.
- How to Apply: Apply online or visit our admissions office.
- Important Dates: Available on our website.

#### **Mission:**

To offer quality education and support students in their academic and personal growth.

#### Vision:

To be a top choice for students seeking excellent education and career preparation.

#### 1.2 Objective of the Orientation Program of MERN Stack:

The MERN Stack is a set of technologies used to build full-stack web applications. It includes:

- MongoDB: NoSQL database for flexible data storage.
- Express.js: Framework for building server-side applications.
- React.js: Library for creating dynamic user interfaces.
- Node.js: JavaScript runtime for server-side logic.

#### **Program Structure:**

- 1. JavaScript Basics: Learn JavaScript fundamentals.
- 2. MongoDB: Set up and use MongoDB for data management.
- 3. Express.js: Build server-side applications and APIs.
- 4. React.js: Create interactive front-end components.
- 5. Node.js: Run server-side code and integrate with Express.js.
- 6. Integration: Connect MongoDB, Express.js, and React.js.
- 7. Deployment: Deploy your application and follow best practices.

#### **Learning Outcomes:**

- Build full-stack applications.
- Manage data with MongoDB.
- Create APIs with Express.js.
- Develop UIs with React.js.
- Deploy and maintain applications.

#### **Prerequisites:**

- Basic HTML, CSS, and JavaScript knowledge.
- Familiarity with Git and the command line is helpful.

#### 1.3 Scope of Work:

#### **Preparation Phase**

#### Tasks:

- Install and configure necessary software (Node.js, MongoDB, code editors).
- Set up version control (Git) and project repository.
- Responsibilities:
- Project Lead: Ensure all tools are installed and properly configured.
- Developers: Familiarize themselves with the development environment and tools.

#### **JavaScript Fundamentals**

#### Tasks:

- Learn and practice JavaScript basics, including functions, arrays, and objects.
- Study ES6 features like arrow functions, destructuring, and template literals.
- Responsibilities:
- Developers: Complete JavaScript exercises and mini-projects to strengthen understanding.
- Instructor/Coordinator: Provide resources, tutorials, and support for learning JavaScript.

#### MongoDB

#### Tasks:

- Design and create MongoDB databases and collections.
- Implement CRUD operations and learn aggregation techniques.
- Responsibilities:
- Developers: Design database schema and implement data operations.
- Project Lead: Review and ensure database design meets project requirements.

#### Express.js

#### Tasks:

- Set up an Express server and configure basic routes.
- Implement middleware for functionalities like authentication and error handling.
- Responsibilities:
- Developers: Build and test server-side logic and routes.
- Project Lead: Ensure the server setup aligns with project specifications.

#### React.js

#### Tasks:

- Create React components and manage state with hooks.
- Implement client-side routing using React Router.
- Responsibilities:
- Developers: Build the user interface and ensure component functionality.
- Designer: Provide UI/UX designs and feedback on the application's look and feel.

#### Node.js

#### Tasks:

- Write server-side scripts using Node.js.
- Integrate Node.js with Express to handle requests and interact with MongoDB.
- Responsibilities:
- Developers: Develop and test server-side logic and integrations.
- Project Lead: Oversee integration and ensure smooth communication between components.

#### 1.4 Report Organization:

#### I. Introduction

- Purpose of the form
- Brief overview of the passport application process

#### **II. Personal Information**

- Full name
- Date of birth
- Place of birth
- Nationality
- Current address

#### III. Identification

- Proof of identity (e.g., birth certificate, driver's license, national identity card)
- Issuing authority
- Date of issuance
- Expiry date

#### IV. Photographs

- Number of required photographs
- Size specifications
- Background requirements
- Recentness guidelines

#### V. Declaration

- Statement of accuracy of information provided
- Acknowledgment of penalties for false statements
- Consent to biometric data collection (if applicable)

#### VI. Signature

- Applicant's signature
- Date

# **VII. Supporting Documents**

- List of required documents (e.g., proof of address, previous passport, military service record)
- Instructions for submitting documents

#### VIII. Additional Information

- Space for any additional comments or questions
- Contact information for inquiries

#### **IX. Submission Instructions**

- Where to submit the form
- Deadline for submission
- Fees or charges associated with the application

#### **X.** Contact Information

- Contact details for the passport issuing authority
- Website address
- Email address
- Phone number

# **Chapter 2: Department Profile**

#### 1. Department Mission and Vision

- Mission: The Computer Science Department at VET Institute of Arts and Science is committed to fostering a robust educational environment that nurtures innovation, research, and practical skills in computing. Our mission is to produce graduates who are adept at solving complex problems and advancing technology, while also contributing to societal needs through impactful research and community engagement.
- Vision: Our vision is to be a pioneering department in computer science education and research, recognized globally for excellence in teaching, research, and professional development. We aim to lead advancements in technology and inspire the next generation of computing professionals.

#### 2. Academic Programs

- **Year of Establishment:** The Computer Science Department was established in 2020. It was part of the institution's broader mission to provide advanced education in emerging fields.
- Core Courses: Programming, Data Structures, Algorithms, Operating Systems, Computer Networks
- Specializations: Artificial Intelligence, Cybersecurity, Software Engineering
- **Program Expansion:** Master of Computer Science Department was established in 2024.
- **High-Performance Computing Lab:** Equipped with powerful servers and GPUs for intensive computational tasks.

#### **3.Student Resources:**

- **Technical Support:** Help desk for IT issues and software troubleshooting.
- Career Services: Assistance with internships, job placements, and career development workshops.
- Academic Advising: Personalized guidance for course selection and career planning.

# **Chapter 3: Orientation Tasks and Responsibilities**

#### 3.1 Orientation Tasks:

- 1. Welcome and Introduction: Greet applicants and introduce the passport application process.
- 2. Form Distribution: Provide applicants with the necessary forms and any accompanying documents.
- 3. Instructions and Guidance: Explain the purpose of each section of the form and provide clear instructions for completion.
- 4. Photograph Requirements: Clarify the specific requirements for passport photographs, including size, background, and recentness.
- 5. Supporting Documents: Explain the required supporting documents and provide guidance on how to obtain them.
- 6. Fees and Payments: Inform applicants about any fees associated with the application and payment methods.

#### **Responsibilities:**

- 1. Verification of Information: Ensure that applicants accurately complete the forms and provide correct information.
- 2. Document Check: Verify that all required supporting documents are submitted and that they meet the specified criteria.
- 3. Photo Verification: Ensure that passport photographs meet the required standards and are recent.
- 4. Fee Collection: Collect the appropriate fees from applicants and provide receipts.
- 5. Form Processing: Collect completed forms and supporting documents for further processing.
- 6. Information Provision: Answer any questions applicants may have about the passport application process.
- 7. Appointment Scheduling: If necessary, schedule appointments for applicants to return for their passports or for additional information.

#### 3.2 Tools and Technologies:

#### **Programming Languages**

#### 1. HTML (HyperText Markup Language)

- **Description:** The standard language for creating and structuring content on the web. It defines the elements of a web page such as headings, paragraphs, links, and other content.
- **Usage:** Structure the content of the web application, including headers, recipe details, and interactive elements.

#### **2.** CSS (Cascading Style Sheets)

- **Description:** A stylesheet language used to describe the presentation of a document written in HTML. It controls the layout, colors, fonts, and overall look of web pages.
- Usage: Style the HTML elements to make the web application visually appealing.

#### 3. JavaScript (JS)

- **Description:** A high-level, dynamic programming language used to create interactive effects within web browsers. It allows you to manipulate the DOM, handle events, and make asynchronous requests.
- **Usage:** Add interactivity to the web application, such as updating the recipe display or handling user inputs.

#### 4. ReactJS (JavaScript Library)

- **Description:** A JavaScript library for building user interfaces. React allows for the creation of reusable components and manages the state of these components efficiently.
- **Usage:** Develop the front-end of the web application, create interactive UI components, and manage the application's state.

#### **Tools**

#### 1. Visual Studio Code (VS Code)

**Description:** A popular code editor with built-in support for JavaScript and React. It features debugging capabilities, extensions, and integrated Git support.

• Usage: Write and edit code for HTML, CSS, JavaScript, and React components.

#### **2.** Git

- **Description:** A distributed version control system used to track changes in source code and collaborate with others.
- Usage: Manage version control of the codebase and collaborate with team members.

#### 3. Create React App

- **Description:** A command-line tool for setting up a new React project with a default configuration.
- Usage: Initialize a new React project with a pre-configured build setup.

#### 4. Postman

- **Description:** A tool for testing and interacting with APIs.
- **Usage:** Test API endpoints if the application needs to fetch or send data to a backend.

#### Software

#### 1. Node.js

- **Description:** A JavaScript runtime built on Chrome's V8 JavaScript engine. It allows you to run JavaScript code on the server side and manage packages using npm.
- Usage: Run development tools and manage project dependencies.

#### 2. npm (Node Package Manager)

- **Description:** A package manager for JavaScript that comes with Node.js. It allows you to install and manage libraries and tools.
- Usage: Manage project dependencies, including React and other libraries.

#### 3. Babel

- **Description:** A JavaScript compiler that allows you to use the latest JavaScript features and JSX syntax in React.
- Usage: Compile modern JavaScript and JSX code into a format compatible with older browsers.

#### 4. Webpack

- **Description:** A module bundler for JavaScript applications. It bundles JavaScript files and other assets into a single output file or smaller chunks.
- Usage: Bundle and optimize JavaScript, CSS, and other assets for deployment.

#### 5. Jest

- **Description:** A testing framework for JavaScript, particularly well-suited for testing React components.
- **Usage:** Write and run unit and integration tests to ensure the application functions correctly.

#### 6. React Testing Library

- **Description:** A library for testing React components with a focus on user interactions and behavior.
- **Usage:** Test React components to ensure they render and behave as expected.

#### Hardware

#### 1. Development Machine

- **Description:** A computer used by developers to write and test code. It typically includes sufficient RAM, CPU, and storage to handle development tasks.
- Usage: Run development tools, code editors, and local servers.

#### 2. Testing Devices

- Description: Various devices (e.g., desktops, laptops, tablets, smartphones)
  used to test the application's responsiveness and usability across different
  screen sizes and operating systems.
- Usage: Ensure the web application performs well on various devices and browsers.

#### 3. Server (Optional)

- **Description:** A server or cloud service for hosting the web application if using a custom backend or for deployment.
- Usage: Host the deployed application and manage user access.

#### 3.4 Implementation:

#### **Understanding the Requirements:**

Before implementing the form, it's crucial to gather specific requirements from the passport issuing authority. This includes:

- **Mandatory fields:** Which information is essential for the application?
- **Supporting documents:** What documents are required (e.g., birth certificate, proof of address)?
- **Photograph specifications:** Size, background, number of photos needed.
- **Fees:** Any associated fees or payment methods.
- **Processing time:** Estimated duration for passport issuance

#### .

#### **Additional Considerations:**

- Accessibility: Ensure the form is accessible to users with disabilities by following accessibility guidelines.
- **Data Validation:** Implement robust data validation rules (e.g., for dates, numbers, email addresses).
- Error Handling: Provide clear error messages to guide users in correcting mistakes.
- **Security:** Protect sensitive data (e.g., using HTTPS, avoiding storing passwords in plain text).
- **Server-Side Validation:** Consider server-side validation for added security and to prevent tampering.
- **Integration with Backend:** If necessary, integrate the form with a backend system for data processing and storage.

# **Chapter 4: Results**

The result of a passport application form typically depends on several factors, including:

#### **Completeness and Accuracy:**

- Ensure that all required fields are filled out accurately and completely.
- Double-check for any errors or inconsistencies in the information provided.

#### **Supporting Documents:**

- Submit all necessary supporting documents, such as birth certificate, proof of identity, and photographs.
- Ensure that the documents are clear, legible, and valid.

#### **Background Checks:**

- The government may conduct background checks to verify your identity and eligibility for a passport.
- Any previous criminal convictions or legal issues may affect the application process.

#### **Processing Time:**

- The processing time for passport applications can vary depending on the country, workload, and any additional requirements.
- It's advisable to submit your application well in advance of your planned travel to allow sufficient time for processing.

#### **Approval or Denial:**

- Once the application is reviewed, you will receive a decision regarding its approval or denial.
- If approved, you will be issued a passport.
- If denied, you will typically receive a notification explaining the reasons for the denial and any possible steps to reapply.

#### **Additional Considerations:**

- Fees: There may be associated fees for passport applications.
- **Expedited Processing:** Some countries offer expedited processing options for those who need their passport urgently.
- **Lost or Stolen Passports:** If your passport is lost or stolen, you will need to report it to the authorities and apply for a replacement.

# **Chapter 5: Conclusion and Future Enhancement**

#### **5.1 Conclusion:**

This response has provided a comprehensive guide to implementing a passport application form using HTML, CSS, and JavaScript. It includes the following key elements:

- **HTML Structure:** A well-organized HTML structure with clear field labels and input types.
- CSS Styling: Custom CSS styles to enhance the form's appearance and user experience.
- **JavaScript Validation:** Basic JavaScript validation to ensure data integrity and prevent errors.
- **Enhancements:** Suggestions for further improvements, such as additional fields, error handling, accessibility, and data validation.

#### **5.2 Future Enhancement:**

- Clearer HTML Structure: The form-group class is used to improve readability and maintainability.
- Additional Fields: You can add more fields as needed, such as date of birth, place of birth, nationality, passport expiry date, etc.
- **Customizable Styling:** The CSS can be further customized to match your desired design.
- **Error Handling:** Implement more robust error handling to provide specific feedback to the user.
- Accessibility: Ensure the form is accessible to users with disabilities by following accessibility guidelines.
- **Data Validation:** Implement more comprehensive data validation rules, such as checking for valid email addresses, phone numbers, and dates.
- **Server-Side Validation:** For production environments, consider performing server-side validation to prevent malicious attacks and ensure data integrity.

#### **Sample Code:**

#### **HTML Structure:**

```
<!DOCTYPE html>
<html>
<head>
  <title>Passport Application Form</title>
  <link rel="stylesheet" href="styles.css">
</head>
<body>
  <h1>Passport Application Form</h1>
  <form id="passportForm">
    <fieldset>
       <legend>Personal Information</legend>
       <div class="form-group">
         <label for="firstName">First Name:</label>
         <input type="text" id="firstName" name="firstName" required>
       </div>
      <div class="form-group">
         </div>
    </fieldset>
    <fieldset>
       <legend>Address</legend>
       <div class="form-group">
```

```
<label for="addressLine1">Address Line 1:</label>
         <input type="text" id="addressLine1" name="addressLine1" required>
       </div>
       <div class="form-group">
         </div>
    </fieldset>
    <fieldset>
       <legend>Passport Information</legend>
       <div class="form-group">
         <label for="passportNumber">Passport Number:</label>
         <input type="text" id="passportNumber" name="passportNumber" required>
       </div>
       <div class="form-group">
         </div>
    </fieldset>
    <fieldset>
       <legend>Declaration</legend>
       <textarea id="declaration" name="declaration" required></textarea>
    </fieldset>
    <button type="submit">Submit Application</button>
  </form>
</body>
</html>
```

# **CSS Styling:**

```
/* styles.css */
body {
  font-family: Arial, sans-serif;
}
form {
  max-width: 600px;
  margin: 0 auto;
  padding: 20px;
}
fieldset {
  border: 1px solid #ccc;
  padding: 10px;
  margin-bottom: 20px;
}
legend {
  font-weight: bold;
}
.form-group {
  margin-bottom: 15px;
}
label {
  display: block;
```

```
}
input[type="text"],
input[type="date"],
textarea {
  width: 100%;
  padding: 8px;
  border: 1px solid #ccc;
}
button[type="submit"] {
  background-color: #4CAF50;
  color: white;
  padding: 10px 20px;
  border: none;
  border-radius: 4px;
  cursor: pointer;
}
JavaScript Validation:
// Assuming you have a script tag in your HTML
const form = document.getElementById('passportForm');
form.addEventListener('submit',\,(event) => \{
  event.preventDefault();
```

margin-bottom: 5px;

```
// Add your validation logic here
// For example, you can check if required fields are filled, validate email addresses, etc.

if (isValid) {
    // Submit the form
    form.submit();
} else {
    // Display error messages
    alert('Please correct the errors and resubmit.');
}
```

});

# Output

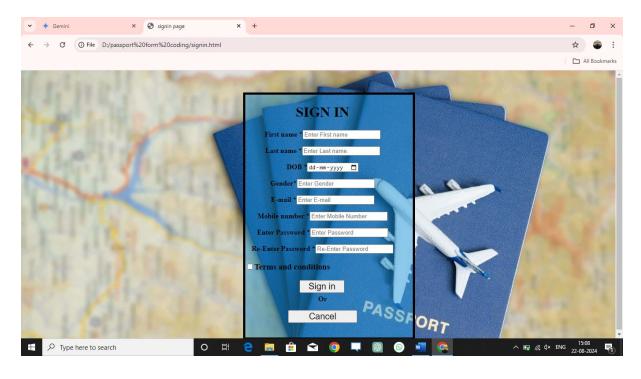
# Homepage:



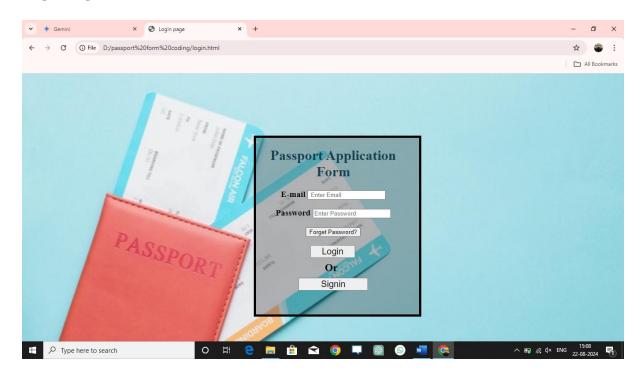




#### Sign in page:



#### **Login Page:**



#### **Application form page:**

