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Department of Artificial Intelligence, Machine Learning
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FRONT END UI/UX DEVELOPMENT

(BTOE361T5P)

CIA 3

PROJECT REPORT 1

Title: Online Resume Builder

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ABSTRACT

This project presents Resume Builder Pro, a responsive web-based application designed to simplify the process of creating professional resumes. Built using HTML5, CSS3, Bootstrap 5, JavaScript, and jQuery, the system provides an interactive interface where users can input their personal details, education, work experience, skills, and a short summary. The application dynamically updates a live preview of the resume alongside the input form, ensuring real-time feedback and ease of use.

The design emphasizes modern UI/UX practices, featuring a gradient background with pattern overlays, glassmorphism-inspired content cards, smooth hover effects, and a mobile-friendly responsive layout. Functionalities such as adding/removing education and experience fields, automatic rendering of structured preview sections, and skill-list generation are implemented using jQuery.

Additionally, the system includes a PDF download/print feature, enabling users to export their resumes instantly. With its simplicity, interactivity, and visually appealing design, Resume Builder Pro serves as a lightweight yet powerful tool for students and professionals to build and customize resumes efficiently without requiring advanced technical knowledge.

OBJECTIVES

1. To develop a user-friendly web application that allows users to create professional resumes without requiring design or coding knowledge.
2. To provide real-time preview functionality, ensuring that users can instantly visualize how their resume will appear while entering details.
3. To implement dynamic form handling for adding and removing multiple education, experience, and skill entries with ease.
4. To design a responsive and modern interface using HTML, CSS, and Bootstrap, ensuring compatibility across devices.
5. To integrate a resume export option that enables users to download or print their resumes in PDF format.
6. To enhance user experience with visually appealing UI elements such as gradients, hover effects, and glassmorphism styling.
7. To create a lightweight, browser-based tool that does not require server-side processing, making it fast and accessible.

SCOPE OF THE PROJECT

The Resume Builder Pro project is designed as a browser-based application to help students, job seekers, and professionals create structured and visually appealing resumes. The system covers the following aspects:

- In Scope:
 - Collecting and managing user inputs such as personal details, education, work experience, skills, and summaries.
 - Real-time dynamic resume preview that updates instantly as data is entered.
 - Adding or removing multiple education and experience entries as per user needs.
 - Generating a well-structured resume layout with clean formatting.
 - Allowing users to download or print resumes in PDF format using browser print functionality.
 - Providing a responsive, modern, and attractive user interface for desktop and mobile devices.
- Out of Scope:
 - Server-side storage or user authentication (no saving of resumes online).
 - AI-based suggestions, resume templates, or content recommendations.
 - Advanced customization such as theme selection, multiple design templates, or drag-and-drop editing.

TOOLS AND TECHNOLOGY USED:

TOOL/TECHNOLOGY	PURPOSE
HTML5	Structuring the content and layout of the resume builder using semantic elements (e.g., <form>, <section>, <footer>).
CSS3	Styling the webpage with colors, typography, spacing, hover effects, and visual hierarchy for better readability

Bootstrap 5	Using pre-designed components and a responsive grid system to create a mobile-friendly and modern layout.
Flexbox & Grid Layout	Arranging and aligning elements such as form fields and resume preview sections in a structured way.
Responsive Design	Ensuring the application adapts seamlessly across desktops, tablets, and mobile devices.
JavaScript(ES6)	Adding interactivity such as dynamic content updates, input validation, and form handling.
jQuery	Simplifying DOM manipulation, event handling, and real-time preview updates.
Browser Print API	Allowing users to download or print the generated resume as a PDF file
External Assets(Textures & Icons)	Using background textures and icons to enhance the visual appeal of the interface.

HTML STRUCTURE OVERVIEW:

The HTML structure of the **Resume Builder Pro** project is organized into a clean and responsive layout. The document begins with the `<!doctype html>` declaration and an `<html>` element with the language set to English. Inside the `<head>`, metadata such as character encoding, viewport settings, the page title, and links to Bootstrap and custom CSS are included. The `<body>` is divided into three main parts: the navigation bar, the main content area, and the footer. The navigation bar (`<nav>`) is styled with Bootstrap's dark theme and contains the project logo/title. The main content area is wrapped inside a Bootstrap container with a row divided into two columns. The left column contains the form section where users enter their personal details, education, experience, and skills, with options to dynamically add or remove fields. The right column serves as the resume preview, displaying the entered data in real time under sections like name, title, contact details, summary, education, experience, and skills. At the bottom, a footer provides a copyright note with a

styled background. Finally, external scripts, including jQuery and custom JavaScript, are loaded at the end of the document to manage form handling, real-time updates, and PDF download functionality.

CSS STYLE STRATEGY:

The styling strategy for Resume Builder Pro is based on creating a modern, clean, and user-friendly design that enhances readability and usability. The project uses a combination of custom CSS and Bootstrap 5 utility classes to balance flexibility and consistency.

The overall design begins with a linear-gradient background to create a professional and attractive look. A semi-transparent pattern overlay is applied using the ::before pseudo-element to give depth without distracting from the content. Sections such as the form and resume preview use glassmorphism-inspired cards with semi-transparent white backgrounds, rounded corners, blur effects, and drop shadows to provide a modern interface.

For layout, Bootstrap's grid system ensures responsiveness, while Flexbox and spacing utilities are applied to align form inputs, buttons, and preview elements neatly across devices. Interactive elements like buttons are styled with hover effects and smooth transitions, making the interface more engaging. A consistent color palette of blue (#2575fc) for highlights and dark backgrounds for contrast has been used, while typography is handled using Segoe UI and Tahoma for a clean, professional feel.

Finally, special attention is given to section titles, which include colored borders and bold text to improve visual hierarchy. The footer is styled with a dark background and soft shadows to provide a clear separation from the main content. Overall, the CSS strategy focuses on simplicity, responsiveness, and visual appeal, ensuring the resume builder remains professional yet easy to use.

KEY FEATURES :

Feature	Description
Personal Information Section	Fields for entering full name, job title, email, phone number, and a short professional summary, all dynamically reflected in the live resume preview.

Education Section	Ability to add multiple education entries with degree, institution, and year, along with options to remove or edit entries.
Experience Section	Supports multiple work experiences with role, company, duration, and description, dynamically updating the preview in real-time.
Skills Section	Input skills as a comma-separated list, automatically rendered as a clean bullet-point list in the resume preview.
Live Resume Preview	Real-time display of all entered data in a structured and professional layout, helping users visualize their resume instantly.
Dynamic Form Handling	Add/remove education and experience entries easily with interactive buttons, enhancing flexibility and usability.
Responsive and Modern UI	Uses Bootstrap grid, Flexbox, gradients, glassmorphism cards, and hover effects for a visually appealing and mobile-friendly design.
PDF Download / Print	Export the completed resume as a PDF using the browser's print functionality for easy sharing and printing..
Consistent Styling	Unified fonts, colors, spacing, and section titles to maintain a professional and cohesive look throughout the resume.

CHALLENGES FACED AND SOLUTIONS

Challenge	Solution
Cluttered resume preview layout	Used Bootstrap grid system and spacing utilities for clean organization.
Poor mobile responsiveness	Implemented Bootstrap's responsive classes and CSS media queries to ensure adaptability.
Difficulty in managing dynamic entries (Education/Experience)	Applied jQuery functions to add/remove items and update the preview in real-time.

Formatting issues in PDF export	Utilized browser window.print() with print-friendly CSS to maintain consistent layout.
Inconsistent styling across sections	Adopted a unified color palette, consistent typography, and Flexbox for even spacing.
Low user engagement in form filling	Added interactive buttons, hover effects, and real-time live preview to enhance usability.

FUTURE ENHANCEMENTS

The current version of Resume Builder Pro provides a simple and effective way to create professional resumes. However, there are several enhancements that can make the application more powerful and user-friendly in the future. One of the major improvements is the introduction of multiple resume templates and themes, allowing users to choose from different professional layouts instead of a single default design.

Another enhancement would be cloud storage and user account integration, enabling users to save their progress online and return later to edit or update their resumes. To improve content quality, AI-based suggestions could be added to help users generate professional summaries, recommend job-specific skills, and include industry-relevant keywords.

Currently, the tool supports only a single language. Adding multi-language support would allow a wider audience to benefit from the application. The skills section could also be improved by introducing skill rating bars or tag-style inputs to make resumes visually more appealing.

In terms of export options, the system currently supports PDF only. Future versions could include multiple export formats such as DOCX, PNG, or LinkedIn-ready templates. Finally, personalization features like profile photo upload, icons, and drag-and-drop section rearrangement can give users greater flexibility in designing resumes that suit their unique style.

SAMPLE CODE:

```
<!doctype html>
<html lang="en">
<head>
<meta charset="utf-8"/>
<meta name="viewport" content="width=device-width, initial-scale=1"/>
```

```
<title>Pro Resume Builder</title>

<link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.2/dist/css/bootstrap.min.css" rel="stylesheet"/>

<style>
body {
    font-family: 'Segoe UI', Tahoma, sans-serif;
    min-height: 100vh;
    background: linear-gradient(135deg, #6a11cb, #2575fc);
    color: #333;
    position: relative;
}

/* Pattern overlay */
body::before {
    content: "";
    position: absolute;
    top:0; left:0; right:0; bottom:0;
    background: url("https://www.transparenttextures.com/patterns/cubes.png");
    opacity: 0.15;
    pointer-events: none;
}

nav {
    box-shadow: 0 3px 12px rgba(0,0,0,.25);
}

.form-section, .resume-preview {
    background: rgba(255,255,255,0.9);
    backdrop-filter: blur(10px);
    border-radius: 20px;
    padding: 25px;
    box-shadow: 0 8px 20px rgba(0,0,0,.15);
    transition: transform .2s ease-in-out;
}
```

```
.form-section:hover, .resume-preview:hover {  
    transform: translateY(-3px);  
}  
  
}
```

```
.resume-preview h2 {  
    font-weight: bold;  
    color: #2575fc;  
}  
  
}
```

```
.section-title {  
    border-left: 4px solid #2575fc;  
    padding-left: 10px;  
    margin: 20px 0 10px;  
    font-weight: 600;  
    font-size: 1.2rem;  
    color: #2575fc;  
}  
  
}
```

```
footer {  
    background: rgba(0,0,0,0.85);  
    color: #fff;  
    text-align: center;  
    padding: 12px 0;  
    margin-top: 40px;  
    border-top-left-radius: 15px;  
    border-top-right-radius: 15px;  
    box-shadow: 0 -4px 10px rgba(0,0,0,.3);  
}  
  
}
```

```
.btn-outline-primary {  
    border-radius: 20px;  
    transition: all .2s;  
}  
  
.btn-outline-primary:hover {
```

```
background: #2575fc;
color: #fff;
}

</style>
</head>
<body>
<!-- Navbar -->
<nav class="navbar navbar-expand-lg navbar-dark bg-dark sticky-top">
<div class="container">
<a class="navbar-brand fw-bold fs-4" href="#">🌟 Resume Builder Pro</a>
</div>
</nav>

<!-- Main Content -->
<div class="container-fluid py-5">
<div class="row g-4">
<!-- Left Form -->
<div class="col-md-4">
<div class="form-section">
<h4 class="mb-3 text-primary">Fill Your Details</h4>
<form id="resumeForm">
<h6 class="text-muted">Personal Info</h6>
<input type="text" class="form-control mb-2" id="name" placeholder="Full Name"/>
<input type="text" class="form-control mb-2" id="title" placeholder="Job Title"/>
<input type="email" class="form-control mb-2" id="email" placeholder="Email"/>
<input type="text" class="form-control mb-2" id="phone" placeholder="Phone"/>
<textarea class="form-control mb-2" id="summary" placeholder="Short Summary" rows="3"></textarea>

<h6 class="text-muted mt-3">Education</h6>
<div id="educationList"></div>
<button type="button" class="btn btn-sm btn-outline-primary mb-3" id="addEducation">+
Add Education</button>
```

```
<h6 class="text-muted">Experience</h6>
<div id="experienceList"></div>
<button type="button" class="btn btn-sm btn-outline-primary mb-3" id="addExperience">+
Add Experience</button>

<h6 class="text-muted">Skills</h6>
<textarea class="form-control mb-3" id="skills" placeholder="E.g. JavaScript, HTML,
CSS"></textarea>

<button type="button" class="btn btn-success w-100" id="downloadBtn">  Download as PDF</button>
</form>
</div>
</div>

<!-- Right Preview -->
<div class="col-md-8">
<div class="resume-preview" id="resumePreview">
<h2 id="p_name">Your Name</h2>
<h5 id="p_title" class="text-muted">Job Title</h5>
<p><span id="p_email">email@example.com</span> | <span id="p_phone">+91
1234567890</span></p>
<p id="p_summary">Write a short professional summary here...</p>

<div id="p_education">
<div class="section-title">Education</div>
<ul></ul>
</div>

<div id="p_experience">
<div class="section-title">Experience</div>
<ul></ul>
</div>

<div id="p_skills">
```

```

<div class="section-title">Skills</div>
<ul></ul>
</div>
</div>
</div>
</div>
</div>

<!-- Footer -->
<footer>
  <small>© 2025 Resume Builder Pro | Crafted with ❤</small>
</footer>

<!-- Scripts -->
<script src="https://code.jquery.com/jquery-3.7.1.min.js"></script>
<script>
$(function() {
  // Update text fields
  $("#name").on("input", ()=>$("#p_name").text($("#name").val()||"Your Name"));
  $("#title").on("input", ()=>$("#p_title").text($("#title").val()||"Job Title"));
  $("#email").on("input", ()=>$("#p_email").text($("#email").val()||"email@example.com"));
  $("#phone").on("input", ()=>$("#p_phone").text($("#phone").val()||"+91 1234567890"));
  $("#summary").on("input", ()=>$("#p_summary").text($("#summary").val()||"Write a short professional summary here..."));

  $("#skills").on("input", ()=>{
    const skills = $("#skills").val().split(",");
    const $ul = $("#p_skills ul").empty();
    skills.forEach(s=>{ if(s.trim()) $ul.append("<li>" + s.trim() + "</li>"); });
  });
}

// Add Education
$("#addEducation").click(()=>{
  $("#educationList").append(`

<div class="edu-item mb-2 p-2 border rounded">

```

```

<input type="text" class="form-control mb-1 edu-degree" placeholder="Degree"/>
<input type="text" class="form-control mb-1 edu-inst" placeholder="Institution"/>
<input type="text" class="form-control mb-1 edu-year" placeholder="Year"/>
<button type="button" class="btn btn-sm btn-danger remove-edu">Remove</button>
</div>
);
});

// Add Experience
$("#addExperience").click(()=>{
  $("#experienceList").append(
    <div class="exp-item mb-2 p-2 border rounded">
      <input type="text" class="form-control mb-1 exp-role" placeholder="Role"/>
      <input type="text" class="form-control mb-1 exp-comp" placeholder="Company"/>
      <input type="text" class="form-control mb-1 exp-year" placeholder="Years"/>
      <textarea class="form-control mb-1 exp-desc" placeholder="Description"></textarea>
      <button type="button" class="btn btn-sm btn-danger remove-exp">Remove</button>
    </div>
  );
});

// Dynamic update
$(document).on("input",".edu-item input",updateEducation);
$(document).on("click",".remove-edu",function(){ $(this).closest(".edu-item").remove();
  updateEducation(); });
$(document).on("input",".exp-item input,.exp-item textarea",updateExperience);
$(document).on("click",".remove-exp",function(){ $(this).closest(".exp-item").remove();
  updateExperience(); });

function updateEducation(){
  const $ul = $("#p_education ul").empty();
  $(".edu-item").each(function(){
    const degree=$(this).find(".edu-degree").val();
    const inst=$(this).find(".edu-inst").val();

```

```
const year=$(this).find(".edu-year").val();
if(degree||inst||year) $ul.append(`<li><strong>$ {degree}</strong>, ${inst} (${year})</li>`);
});

}

function updateExperience(){
const $ul = $("#p_experience ul").empty();
$(".exp-item").each(function(){
const role=$(this).find(".exp-role").val();
const comp=$(this).find(".exp-comp").val();
const year=$(this).find(".exp-year").val();
const desc=$(this).find(".exp-desc").val();
if(role||comp||year||desc) $ul.append(`<li><strong>$ {role}</strong> at ${comp}
(${year})<br><small>$ {desc}</small></li>`);
});
}

// PDF Download
$("#downloadBtn").click(()=>{ window.print(); });
});

</script>
</body>
</html>
```

SCREENSHOTS OF FINAL OUTPUT:

The screenshot shows a resume template from 'Resume Builder Pro'. The resume is for a Java Developer named Alice. It includes sections for Personal Info, Education, Experience, and a summary. Alice's profile is summarized as follows:

Alice
Java Developer
alice@gmail.com | +91 9876654321
Results-driven Java Developer with hands-on experience in designing, developing, and maintaining scalable applications. Proficient in Core Java, Object-Oriented Programming, and frameworks such as Spring and Hibernate. Skilled in building RESTful APIs, integrating databases, and writing clean, efficient, and maintainable code. Strong problem-solving abilities with a focus on delivering high-quality software solutions within deadlines.

Education

- btech in computer science, christ university (2028)

Experience

- Java programmer at abc.pvt.ltd (3 years)
Developed and maintained Java-based applications using Core Java, Spring, and Hibernate. Designed and optimized database interactions with MySQL/Oracle. Collaborated with teams to gather requirements and deliver scalable solutions. Performed debugging, code reviews, and implemented reusable components. Worked with Git, Jira, and Agile methodologies across the SDLC.

The screenshot shows the 'Resume Builder Pro' interface. On the left, there are input fields for adding education and experience. The 'Experience' section is filled with the following details:

Java programmer
abc.pvt.ltd
3 years
Worked with Git, Jira, and Agile methodologies I across the SDLC.
Remove

On the right, there is a large blue area labeled 'Methodologies' which is currently empty.

Download as PDF

The screenshot shows a 'Print' dialog box overlaid on the 'Resume Builder Pro' interface. The dialog box has the following settings:

- Destination: Microsoft Print to PDF
- Orientation: Portrait
- Pages: All
- Color mode: Color
- More settings: Print using the system dialog...

The background shows the resume content for Alice, including her personal info, education, and work experience.

CONCLUSION:

The **Resume Builder Pro** project successfully demonstrates how a web-based application can simplify the process of creating professional resumes. By combining **HTML, CSS, Bootstrap, JavaScript, and jQuery**, the system provides users with an interactive and responsive platform to input their details and view a real-time preview of their resume. Features such as dynamic form handling, live updates, and PDF export make the tool practical and easy to use, even for non-technical users.

The project also emphasizes **modern design principles** like responsive layouts, consistent styling, and user-friendly navigation, ensuring accessibility across devices. While challenges such as maintaining formatting, managing dynamic entries, and ensuring mobile responsiveness were encountered, they were effectively solved through structured coding strategies and the use of frameworks like Bootstrap.

Overall, this project highlights the importance of combining **clean design, usability, and functionality** in web development. With future enhancements such as multiple templates, AI-driven suggestions, cloud storage, and multi-language support, Resume Builder Pro has the potential to evolve into a comprehensive tool that caters to diverse user needs in the competitive job market.

REFERENCES:

L&T LMS: <https://learn.lntedutech.com/Landing/MyCourse>