

Digital Portfolio

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D. PARTMENT:II-YEAR-BSC COMPUTER SCIENCE-B

COLLEGE:SHREE RAGAVENDHRA ARTS AND SCIENCE

COLLEGE

PROJECT TITLE

Javascript framework and
libraries

AGENDA

- 1. Problem Statement**
- 2. Project Overview**
- 3. End Users**
- 4. Tools and Technologies**
- 5. Portfolio design and Layout**
- 6. Features and Functionality**
- 7. Results and Screenshots**
- 8. Conclusion**
- 9. Github Link**

PROBLEM STATEMENT

Modern web applications demand rich interactivity, high performance, and maintainable code. Traditional JavaScript, while powerful, becomes complex and hard to manage as application size grows. Developers face challenges like state management, DOM manipulation, and component reusability. This project explores how JavaScript frameworks and libraries (such as React, Angular, Vue, and jQuery) solve these challenges, streamline development, and improve user experience.

PROJECT OVERVIEW

This project focuses on exploring popular JavaScript frameworks and libraries that simplify and accelerate web development. It highlights the need for structured, efficient, and scalable code in modern web applications.

The project provides a comparative study of key frameworks and libraries such as React, Angular, Vue.js, and jQuery-analyzing their core features, use cases, advantages, and limitations.

WHO ARE THE END USERS?

Web developers:

They use these tools to build interactive, efficient, and maintainable web applications.

Businesses and organisations:

They benefit from faster development cycles and better user experiences on their websites or web apps.

Website visitors/users:

They experience improved performance, responsiveness, and richer interfaces powered by these frameworks.



TOOLS AND TECHNIQUES

Tools

- Code editors and IDEs.
 - Package managers.
 - Build tools.
 - Version control.
 - State management libraries.
- Techniques:
- Component based architecture.
 - State management.
 - Virtual DOM.
 - Two way data binding.

POTFOLIO DESIGN AND LAYOUT

1. Home/Introduction

Brief intro with animated typing effect (using React or Vue).

Showcase key skills with smooth fade-ins or slides

2. About me

Interactive timeline or card layout with hover animations.

Use transitions for profile picture and skill badges.

3. Project section

Grid or carousel of projects built with different frameworks (React, Angular, Vue).

Each project card includes animated hover effects and modal pop-ups with details.

FEATURES AND FUNCTIONAL

Component based:

breaks UI into reusable, self-contained component

Declarative programming

Allow developer to describe the UI state, and the framework handles rendering

Efficient DOM manipulation

Uses techniques like virtual DOM to update only necessary part of the page



A screenshot of a code editor interface. At the top, there are tabs for "HTML", "CSS", "JS", and "Result". To the right of the tabs are two small icons: a gear and a dropdown arrow. Below the tabs, the HTML code for a navigation bar and an "about" section is displayed. The code includes links for "About", "Skills", "Projects", and "Contact". A red exclamation mark icon is positioned next to the opening tag of the "about" section. The main content area of the website features a large blue header with the name "Ramya" in white. Below the header, the text "Aspiring Developer | Creative Thinker | Tech Enthusiast" is displayed. At the bottom, a black footer bar contains the navigation links "About", "Skills", "Projects", and "Contact".

```
</header>

<nav>

  <a href="#about">About</a>

  <a href="#skills">Skills</a>

  <a href="#projects">Projects</a>

  <a href="#contact">Contact</a>

</nav>

<section id="about" class="about">
```

RESULTS AND SCREENSHOTS

CONCLUSION

JavaScript frameworks and libraries simplify web development by making code more organized, efficient, and scalable. They help build dynamic, responsive, and user-friendly applications faster. Choosing the right tool depends on your project needs.

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**THANK
YOU**

