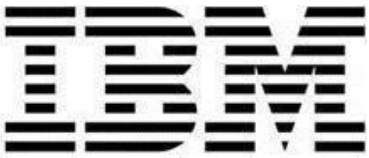

COLLEGE CODE: 9504

COLLEGE NAME: DR.G.U.POPE COLLEGE OF ENGINEERING

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DATE: 22-09-2025

Completed the project SINGLE PAGE APPLICATION Phase-03

TECHNOLOGY PROJECT NAME: IBM-FE- SINGLE PAGE APPLICATION

SUBMITTED BY,

NAME: Suresh Kumar R

Mobile: 9524918976

Phase 3 – MVP Implementation Checklist

Project Setup:

Set the foundation for your SPA.

Tasks:

- ✓ Initialize project with a framework/library (e.g., React, Vue, Angular).
- ✓ Configure project structure (folders for components, pages, services, etc.).
- ✓ Set up build tools (e.g., Vite, Webpack, Create React App).
- ✓ Install dependencies (e.g., React Router, Axios, etc.).
- ✓ Set up GitHub repository and push initial commit.

Example (React):

bash

```
npx create-react-app spa-project
cd spa-project
npm install react-router-dom axios
git init
git remote add origin https://github.com/yourusername/spa-project.git
git push -u origin main
```

Core Features Implementation:

Tasks (example):

- User Authentication (login/logout or session handling).
- Dynamic Routing (React Router or Vue Router).
- CRUD Operations (e.g., Create, Read, Update, Delete for posts, tasks, etc.).
- State Management (useState, Context API, Vuex, etc.).
- Responsive UI (with CSS or UI library like Tailwind, Bootstrap).

Data Storage:

Choose between local state or a backend database.

Options:

Local State:

- Use `useState`, `useReducer`, or Context API (for React).
- Data stored in-memory, possibly in `localStorage`.

Database:

- Connect to a backend (Firebase, Supabase, Express + MongoDB, etc.).
- Store/retrieve data with HTTP requests (Axios, Fetch).
- Implement API endpoints if backend is custom.

Example (Firebase):

```bash
npm install firebase
```

Testing Core Features:

Ensure the app's core logic works as expected.

Tasks:

- ❖ Unit Tests (e.g., with Jest or Vitest).
- ❖ Component Tests (React Testing Library or Cypress).
- ❖ Test API calls and data handling logic.
- ❖ Manual testing for navigation, form handling, etc.

Example (Jest + React Testing Library):

```bash
npm install --save-dev @testing-library/react jest
```

Version Control (GitHub):

Track changes and maintain history of development.

Tasks:

- ➢ Commit frequently with clear messages.
- ➢ Use feature branches for different parts of the app.
- ➢ Merge branches via pull requests (optional).
- ➢ Tag a release version for MVP (`v1.0.0`).

Example:

```bash
git checkout -b feature/login
git add .
git commit -m "Implement login form with validation"
git push origin feature/login
```

Optional Enhancements (Post-MVP):

If time permits, add:

- UI polish with animations.
- Error boundaries.
- Pagination / filtering.
- Unit + e2e test coverage reports.
- Deploy via Netlify, Vercel, or GitHub Pages.