

SPA for a Travel Agency

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1. Project Description

The goal of this project is to develop a responsive Single Page Application (SPA) for a travel agency that allows users to manage tour packages (Create, Read, Update, Delete). The application uses:

- **Frontend:** Vue.js (Vue CLI), Vue Router, Axios, Tailwind CSS
- **Backend:** Node.js, Express.js, MySQL
- **Database:** MySQL relational database
- **Styling:** Tailwind CSS (no pre-built UI kits)

The SPA consists of three main pages: Home, Tour Packages, and About. It communicates asynchronously with the backend using RESTful APIs and displays data dynamically without reloading the page.

2. Technologies Used

Technology	Purpose
Vue.js	Frontend SPA framework
Vue Router	Page navigation within SPA
Axios	HTTP communication between frontend and backend
Tailwind CSS	Responsive UI styling

Node.js	Backend runtime
Express.js	RESTful API backend
MySQL	Relational data storage
CORS, body-parser	API configuration/middleware

3. Installation Commands

Backend Setup

```
npm init -y
npm install express cors mysql2 body-parser nodemon
```

Frontend Setup

```
npm install -g @vue/cli
vue create travel-agency-frontend
cd travel-agency-frontend
npm install axios vue-router
```

Tailwind CSS Setup

```
npm install -D tailwindcss postcss autoprefixer
npx tailwindcss init -p
```

Tailwind Configuration

```
content: [
  "./index.html",
  "./src/**/*.vue",
  "./src/**/*.js",
  "./src/**/*.ts",
  "./src/**/*.jsx",
  "./src/**/*.tsx",
]
```

Tailwind Imports

```
@tailwind base;
@tailwind components;
@tailwind utilities;
```

4. API Endpoints

Endpoint	Method	Description
/api/packages	GET	Get all tour packages
/api/packages/:id	GET	Get package by ID
/api/packages	POST	Add a new tour package
/api/packages/:id	PUT	Update a package
/api/packages/:id	DELETE	Delete a package

5. MySQL Table Schema

```
CREATE TABLE packages (
  id INT AUTO_INCREMENT PRIMARY KEY,
  name VARCHAR(100),
  description TEXT,
  price DECIMAL(10,2),
  image VARCHAR(255),
  category VARCHAR(50)
);
```

6. Project Structure

```
project-root/
├── backend/
```

```
|   ├── server.js
|   └── routes/packageRoutes.js
└── frontend/
    ├── src/
    │   ├── components/
    │   ├── views/
    │   ├── router/
    │   ├── App.vue
    │   └── main.js
```

7. GitHub Repository Link

<https://github.com/vaish-1995/travel-agency-spa>

8. Oral Presentation Topics

- SPA structure and component hierarchy
- Vue Router and state management
- Styling using Tailwind CSS
- CRUD via RESTful API
- Use of Axios for asynchronous communication
- Reasons for choosing Express and MySQL