Front End Engineering-II

Project Report

Semester-IV (Batch-2022)

Travel and Tourism Website

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ABSTRACT

Our Travel and Tourism website is dedicated to tour and travel to various locations India. The site may be focused on travel reviews, trip fares, or a combination of both. Many travel websites are online travelogues or travel journals, usually created by individual travelers and hosted by companies that generally provide their information to consumers for free. The purpose of website is established fact that Internet users are increasing today. One of the main purposes of the website is to facilitate the offline customer online because customers cannot spend their precious time in markets trying to find out the best deal. India is a country where in a few days holiday, you can enjoy a lot. The problem is that we although having many websites but they offer different kind of services. The customers are enjoying a lot but there is a lack of relationship between travel agency and customers and hence we are establishing that relationship by caring and serving all customers in the same manner that we wish to be served.

We need to build a world class team armed with knowledge and backed by technology to advise customers in planning of their holidays and to answer their queries. We will be putting an effort to provide the right choice to the people when they plan a holiday and beware them from the false advertising. We will provide them services which they need in duration of their holiday and we'll like to hear from our customers because customer feedback will encourage us to improve our services. We also manage some entertainment services during travel if you required. In this website you can choose any package of tour and travel services and enjoy a lot. We provide best hotel for relaxation, best food and water for your health, best travel services, hot water and shower for your better refreshment.

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1.INTRODUCTION

Tour and travels websites have become an essential tool for planning and booking travel experiences for millions of people worldwide. The use of technology in the travel industry has made it easier for travelers to research, plan, and book their trips. React.js is a popular JavaScript library that can be used to build user interfaces for web applications. Its popularity has grown steadily, making it an excellent choice for building tour and travels websites.

React.js is a library that provides a set of tools and components that enable developers to build web applications with ease. It is an open-source project that has been around since 2013 and is maintained by Facebook and the wider React community. React.js uses a declarative programming model, making it easy for developers to create reusable UI components that can be easily integrated into larger applications. Tour and travels websites require an engaging and user-friendly interface to attract and retain users. React.js is well-suited for this task since it provides a fast and responsive user interface that is essential for delivering an excellent user experience.

The library allows developers to create complex UI components, such as dropdown menus, carousels, and modals, with ease. This helps to create a visually appealing website that is easy to use and navigate. One of the significant benefits of using React.js for tour and travels websites is the ability to create a single-page application (SPA). SPA is a web application that loads a single HTML page dynamically and updates the page dynamically as the user interacts with the website. This reduces the amount of time required to load pages, resulting in a faster website.

With React.js, developers can create a SPA that feels like a desktop application, providing a seamless and engaging experience for users. React.js also provides developers with the ability to manage state and handle user input effectively. This is critical for tour and travels websites since users must be able to search and filter through different travel packages, view their itinerary, and make bookings. With React.js, developers can create complex forms and input fields with ease, allowing users to enter their details with minimal effort. Developers can also use the library's state management system to keep track of user interactions and update the UI accordingly. Another significant advantage of using React.js for tour and travels websites is the ability to optimize performance. Performance is critical for any web application, and tour and travels websites are no exception. Users expect fast-loading pages, and any delays can lead to a poor user experience.

1.2 Background

People wish to see the website in an even better and organized form always. The use of this website is to book online packages and online hotel reservation etc. for fun have become a favorite pass time of the people. Features vary from website to website. Usually, this website focuses on the different types of packages, adventure and destination, what they want. This tour and travel website is based on .net 4.5 platform. Along with several architecture domains, Applications Architecture from the pillars of a solution architecture. Application architecture is used for an internal structure of an application. These apps have become common trend now. Online Tour and Travel is a web-based application made in the Asp.Net. So, with the help of this project user can apply for packages of tour and room reservation. All details of packages, adventure, destination and hotels are added by Admin on the Admin panel. User can search more attractive packages, destination etc. you will create web pages that visitors can interact with in wonderful ways.

1.3 OBJECTIVES

The main objective of a travel and tourism website is to streamline travel planning and booking by offering comprehensive destination guides, integrated booking systems, and personalized recommendations. It aims to enhance user experience with a user-friendly interface, secure transactions, and real-time updates. Additionally, it fosters user engagement through reviews and profiles, establishing the site as a trusted resource for travel information and bookings.

This system provides Online Registration, Tour Package Information, Bus ticket booking and all other destinations. The purpose of this project is very clear that user can find room facilities easily & hotel service providers also get good customers very easily. Customer can register in the website & can create his own registration then he can receive email for his room status related to his reservation and book all packages. User can register hotel for different types of room what they want. The Main Goal of this project is to provide a very faster room reservation services and also booking services for different types of packages so any user can get this service very easily.

- Our objective is to make strong relationship with customers so that they can enjoy the holiday of their dreams.
- It saves lots of time, now a days there is a fast process world any one can work quickly so, this project helps that people who are searching for reservation inorganization, so they can easily fill up the form and search rooms and different tourist place.
- Possess complete back up services.

1.4 Significance

A travel and tourism website centralizes information, simplifies booking, and offers personalized recommendations, enhancing convenience and trust for travelers. For businesses, it expands global reach, generates revenue, and strengthens brand presence. Overall, it bridges the gap between travelers and service providers, ensuring a seamless and efficient travel experience.

1. For Travelers:
   - **Centralized Information**: Provides detailed destination guides, travel tips, and real-time updates.
   - **Booking Convenience**: Allows seamless booking of flights, hotels, and tours in one place.
   - **Personalized Recommendations**: Offers tailored suggestions based on user preferences.
   - **User Experience**: Ensures a user-friendly interface and secure transaction process.
2. For Businesses:
   - **Global Reach**: Expands audience reach to a global market.
   - **Revenue Generation**: Generates income through bookings, partnerships, and advertisements.
   - **Brand Building**: Enhances brand presence and reputation in the travel industry.
   - **Customer Engagement**: Facilitates interaction through reviews, ratings, and personalized services.
3. Overall:
   - **Efficiency**: Bridges the gap between travelers and service providers, ensuring a seamless and efficient travel experience.

2. PROBLEM DEFINITION AND REQUIREMENTS

2.1 Problem Definition

The purpose of tour and travel is mainly to provide online booking services for the user. This statement describes the problem definition of the proposed system. The purpose of this site is to book online ticket for hotels and all tourist places of Himachal Pradesh. The problem definition of the vacation-o-city is to book online ticket for hotel and tourist place where user wants to visit. It is a Web Based Application to develop website in which end user interact with the web-app easily. In this website, Customer or User can search and book all tourist places and all hill stations and all hotels of Himachal Pradesh. The problem is that we although have many websites but they offer a different kind of services. The customers are enjoying a lot but there is a lack of relationship between travel agency and customers and hence we are establishing that relationship by carrying and servicing all customers in the same manner that we wish to serve.

2.2 Feasibility Study

The feasibility study is undertaken to determine the possibility of either improving the present system or developing a completely new system. It helps to obtain an overview of the problem and get an idea whether a feasible solution exists.

2.2.1 Operational Feasibility Study

The current system is manual. Thus, processing large amount of data becomes a cumbersome activity. Reports that are generated are difficult to prepare manually and are also error prone. Operationally the Proposed system is feasibility because there are sufficient supports for project from management. It will be running smoother and faster that of existing system.

2.2.2 Technical Feasibility Study

Generally, new system brings new technology into an organization. The proposed system requires technology and equipment, which can be obtained. the operating system has the technical capacity to hold the data required to use the proposed system. The present equipment technology assures technical guarantee of accuracy, reliability and ease of access.

2.2.3 Legal/Ethical Feasibility Study

Determines whether the proposed system conflicts with legal requirements.

2.2.4 Schedule Feasibility Study

A project will fail if it takes too long to be completed before it is useful. Typically, this means estimating how long the system will take to develop, and if it can be completed in given time period using some methods like payback period. Schedule feasibility is a measure of how reasonable the project timetable is. Given our technical expertise, are the project deadlines reasonable? Some projects are initiated with specific deadlines. You need to determine whether the deadlines are mandatory or desirable.

2.2.5 Resource Feasibility Study

This involves questions such as how much time is available to build the new system, when it can be built, whether it interferes with normal business operations, type and number of resources required, dependencies.

2.2.6 Cultural Feasibility Study

In this stage, the project's alternatives are evaluated for their impact on the local and generated culture. For example, environmental factors need to be considered and these factors are to be well known. Further an enterprise's own culture can clash with the results of the project.

2.3 Software and Hardware Requirements

2.3.1 Software Requirements

Operating System: Windows 10 or later, macOS 10.14 or later

Node.js and npm: Node.js (version 14.x or later), npm (version 6.x or later)

Text Editor/IDE: Visual Studio Code, WebStorm, Sublime Text, or any other

Browser: Latest versions of Google Chrome, Firefox, Safari, or Edge

Version Control System: Git (for source code management)

React and Related Libraries: React (version 16.8 or later), Redux.

2.3.2 Hardware Requirements

Processor: Dual-core processor

Memory (RAM): 8 GB or more

Storage: SSD with 20 GB or more free disk space for faster performance

Display:1366x768 resolution

Network: Stable internet connection for downloading dependencies, libraries, and for communication.

2.4 Existing System:

1. All Work are done Manually.
2. In Manual Booking System Customer has to go to the Tours and Travel agency.
3. Ask Inquiry for Travelling then Book ticket Finally Pay Payment & Collect Receipt.
4. Difficult To Maintain the Customer Details of Package and Payment Receipt in Register.
5. They Register Tour Package in the notebook.
6. Add advertisement in Local newspaper or Local Market.
7. Use Travelling Facility for the Limited Area or Person.

2.5 Proposed System:

1. To Create Web Based Application For our Organization.
2. To Provide Search Facility for Customer.
3. To Generate Different Types of Reports.
4. To Provide the online Package Ticket Booking and online Payment facility for Customer.
5. To Provide package Details.
6. Services provided by Tour and travels System –
    - VIEW PACKAGE
    - SEARCH PACKAGE
    - BOOKING
    - ONLINE PAYMENT

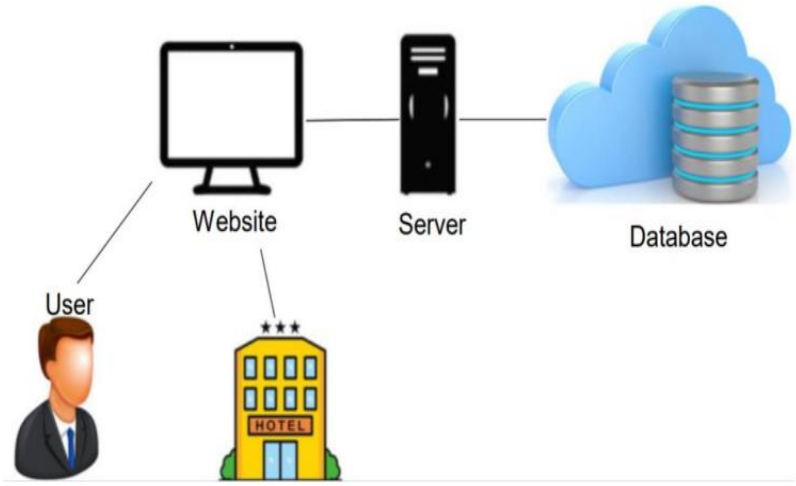


Figure 1 System Architecture of Proposed System

3. PROPOSED DESIGN / METHODOLOGY

3.1 Methodology

The methodology for developing this tourism website using React.js involves a systematic and structured approach, ensuring that each component and functionality is implemented efficiently and effectively. This methodology ensures a systematic approach to developing a tourism website using React.js, focusing on modularity, responsiveness, and user experience. Each step, from planning to deployment, is designed to build a robust, maintainable, and user-friendly application. By following this structured approach, the development process becomes more efficient, and the final product is more reliable and engaging for users.

There are 4 sections in our website-

- Home
- Package
- Review
- Rating
- Contact

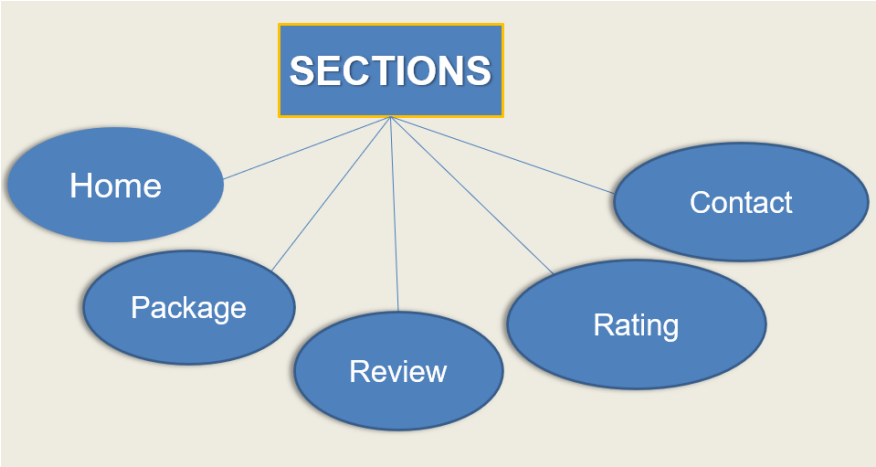


Figure 2 Sections

Here's a detailed description of the methodology used:

1. Planning and Requirements Gathering

- **Objectives**: To define the primary goals of the website, including showcasing travel packages, providing booking options, and engaging users with multimedia content and user reviews.
- **Feature Identification**: List of features implemented:
  - Header with navigation links
  - Home section with a promotional video
  - Packages section displaying travel packages
  - Review section for user feedback
  - Footer with additional information and quick links

2. Design

- **Responsive Design**: We have provided a responsive design to provide a seamless user experience across various devices and screen sizes.

3. Setting Up the Development Environment

- **Tools and Libraries**: Used Create React App to set up the initial project structure. Manage dependencies with npm and install necessary packages
- **File Organization**: We have organized project files for maintainability:
  - src/components for reusable components
  - src/images and src/videos for media assets
  - src/styles for CSS files

4. Development

a. Header Component

The Header component consists of a search form and an add to cart functionality along with the navigation links to different sections.

- **Navigation and Icons**: It consists of navigation links and FontAwesome icons for search and add to cart functionalities.
- **Search Form**: A search form for user interactions, enabling users to search for content on the website.
- **Add to cart**: Allows users to select and store travel packages in a virtual shopping cart, purchase multiple packages.

b. Home Section

- **Video Integration**: Embed a promotional video in the Home Section component using the HTML5 <video> tag.

c. Packages Section

- **Display Travel Packages**: Develop the Packages Section component to display travel packages. Each package includes:
    - Image
    - Description
    - Price
    - Rating using FontAwesome stars
    - Booking add to cart button
- **Styling**: CSS is used to style the packages and ensure visual consistency.

d. Review Section

- **Placeholder for Reviews**: Implemented a Review Section component, which includes user-generated reviews and star ratings.

e. Footer Component

- **Informational Links**: Created the Footer component with various informational links and sections:
    - About Us

  - Branch Locations
  - Quick Links
  - Social Media Links
- **Credit Section**: Included a credit section to acknowledge the creators.

5. Styling

- **CSS Integration**: Used CSS for styling components, ensuring a consistent look and feel across the website. Imported the CSS file in the main index.css.
- **Responsive Design**: Applied responsive design principles to ensure the website works well on different screen sizes.

6. Testing

- **Component Testing**: Test individual components to ensure they render correctly and handle user interactions as expected.
- **Integration Testing**: Test the integration between components to verify that data flows correctly and the user experience is seamless.

7. Deployment

- **Build Process**: Used the npm run build command to create a production-ready build of the React application.
- **Hosting**: Deploy the build to a hosting service such as Netlify, Vercel, or GitHub Pages for public access.

8. Maintenance and Updates

- **Performance Monitoring**: Implement tools like Google Analytics to monitor website performance and user engagement.
- **User Feedback**: Gather user feedback to identify areas for improvement and new feature requests.

3.2 Flowcharts

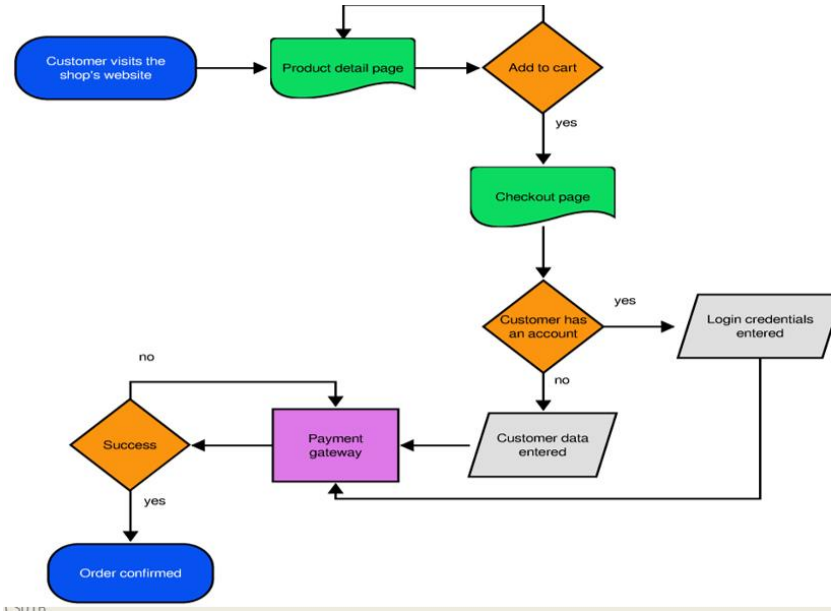


Figure 3 Add to cart

- The "Add to Cart" process on a tourism booking website starts when a user visits the site and begins browsing available packages and hotels. As they explore different offerings, they can select a package or hotel that interests them to view more detailed information.

- On the details page, the user reviews the price, images, descriptions. If the user decides to proceed, they click the "Add to Cart" button.The selected package or hotel is then added to the user's cart, and a confirmation message is displayed. The user can choose to continue shopping or view their cart to proceed to checkout.

- This flow ensures a seamless experience, accommodating both new and returning users, and enhancing their overall interaction with the website.

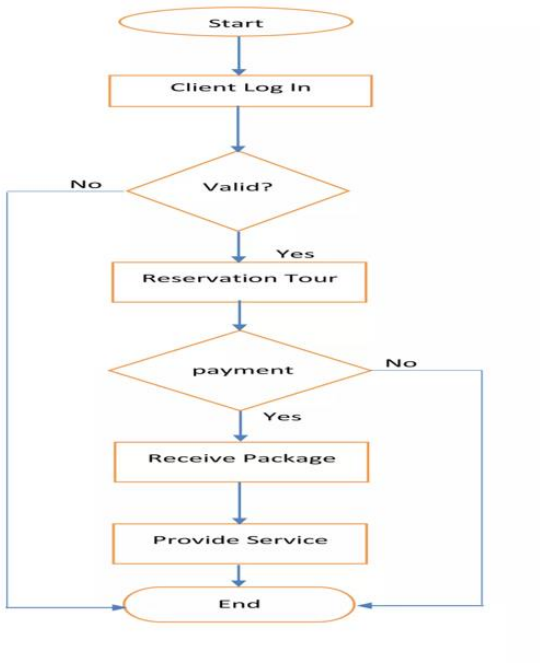


Figure 4 Exploring Package

- The "Exploring Packages" flowchart for a tourism booking website outlines the steps a user takes to browse and filter vacation packages. The process begins when the user visits the homepage of the website, where they are presented with various navigation options. The user selects the "Packages" section from the menu, which leads them to a range of available packages.
- Here the user is greeted with multiple filters, such as destination city, price range, dates, and other preferences. The user can input their desired criteria to narrow down the search results. The system dynamically updates the displayed packages based on the selected filters, ensuring that the user sees the most relevant options.
- As the user reviews the filtered packages, they can click on any package that catches their interest and add it to the cart for potential booking.. This detailed view includes the package name, price, images, details. If the user wants to see more options, they can return to the main packages page and adjust the filters or browse further.
- This exploration flow is designed to be intuitive and user-friendly, allowing users to easily find packages that meet their preferences and making the decision-making process more efficient and enjoyable.

3.3 Features

There are 4 main features of our website that enhances the performance and makes it user friendly. The features are:

1. **Add to cart:**

   The "Add to Cart" functionality in the tourism website allows users to select and store travel packages in the shopping cart. This feature provides a seamless way for users to purchase multiple packages.

   Components and State Management

   - **App Component**: This is the main component that holds the state for the cart items and passes down necessary props to other components.
   - **Header Component**: Displays the number of items in the cart.
   - **Packages Section Component**: Lists all the available travel packages and includes a button to add a package to the cart.
   - **Cart Component**: Displays the items added to the cart and the total price.

2. **Package Filter:**

   The tourism package filter function allows users to refine their search for travel packages based on specific criteria such as location, price range according to their budget. This enhances the user experience by helping them find packages that match their preferences more easily.

   Components and State Management

   - **App Component**: The main component managing the state for all packages, filtered packages, and the criteria used for filtering.
   - **Filter Component**: Provides UI elements (like dropdowns, sliders, and checkboxes) for users to input their filtering criteria.
   - **PackagesSection Component**: Displays the travel packages that meet the filter criteria.

3. **Review and Star Rating:**

   The review and star rating section of a tourism website allows users to read and submit reviews for travel packages. It includes a star rating system to give a quick visual representation of the quality of the package based on user feedback. This section enhances the user experience by providing valuable insights from other travelers.

   Components and State Management

   - **App Component**: Manages the state for reviews and handles the submission of new reviews.
   - **Review Section Component**: Displays the list of reviews and the form for submitting new reviews.
   - **Star Rating Component**: Provides a star rating input system for users to rate the packages.

4. RESULTS

4.1 Code snippets of Travel and Tourism Website

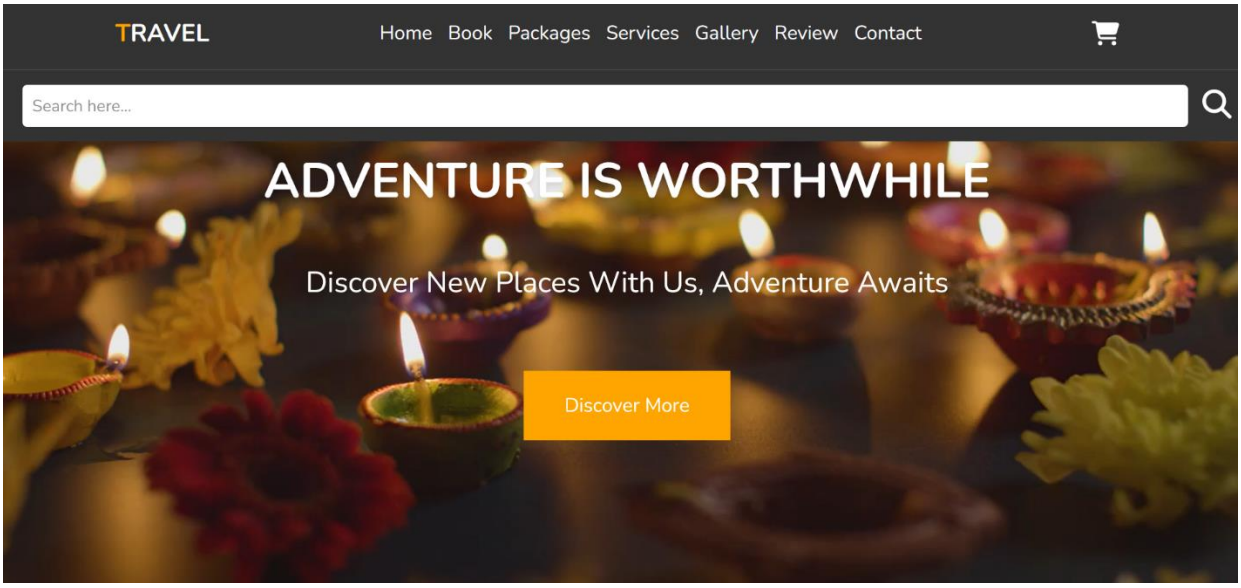


Figure 5 Home Page

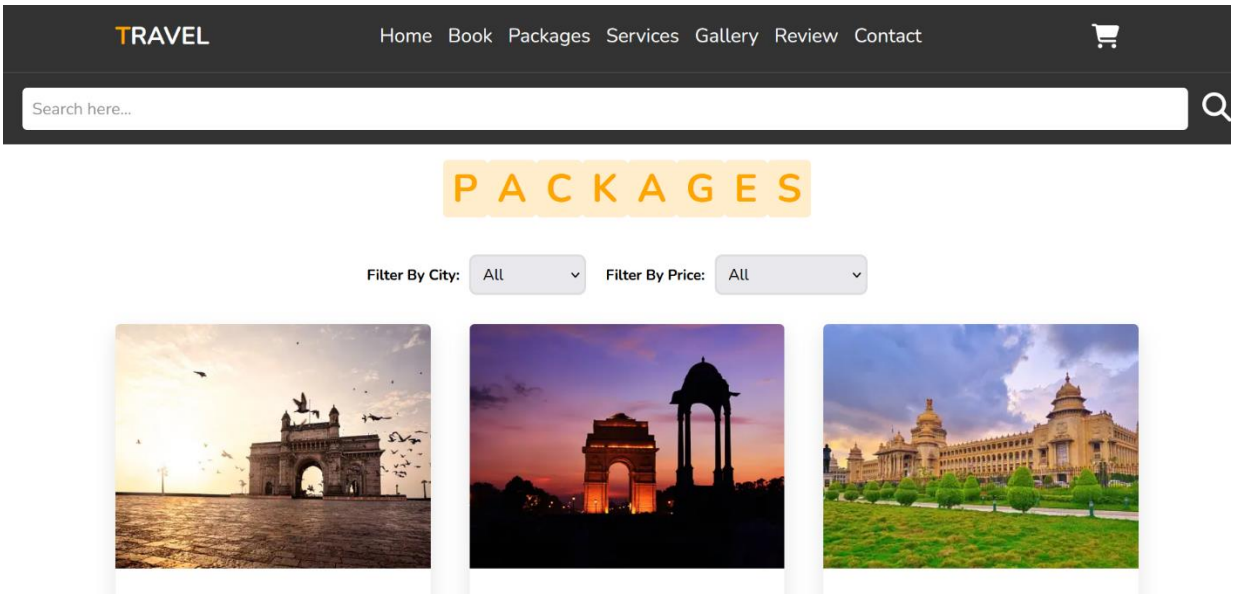


Figure 6 Package Section

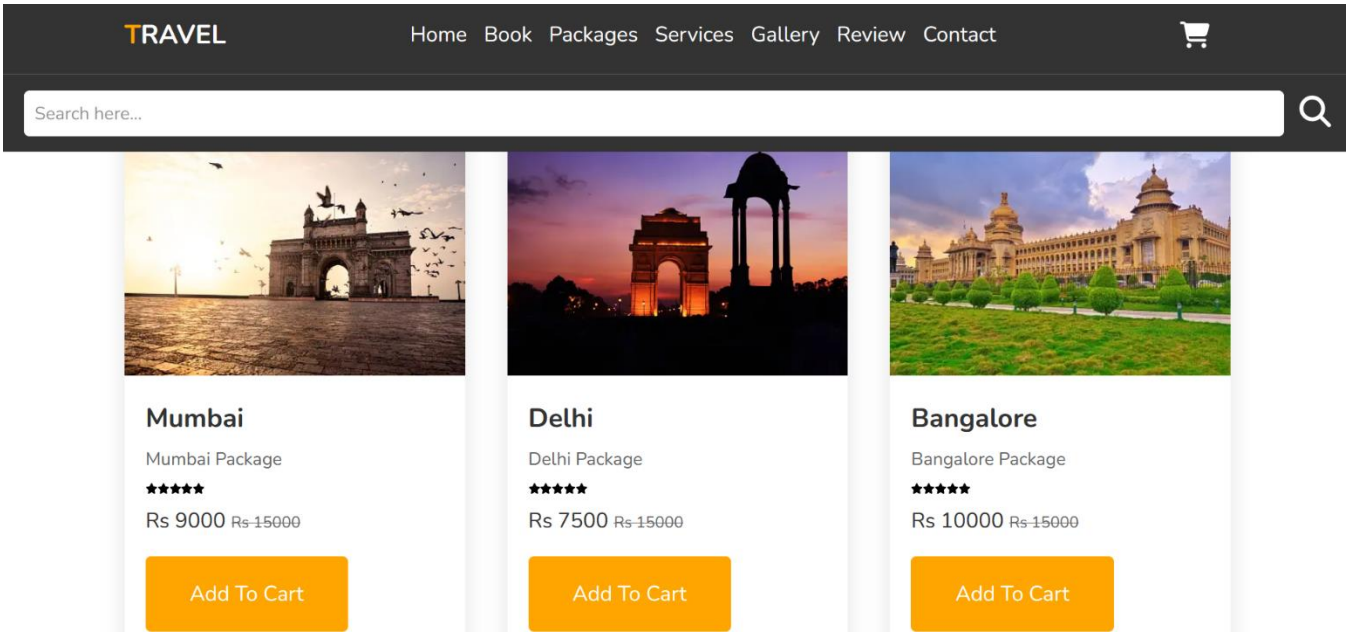


Figure 7 Packages

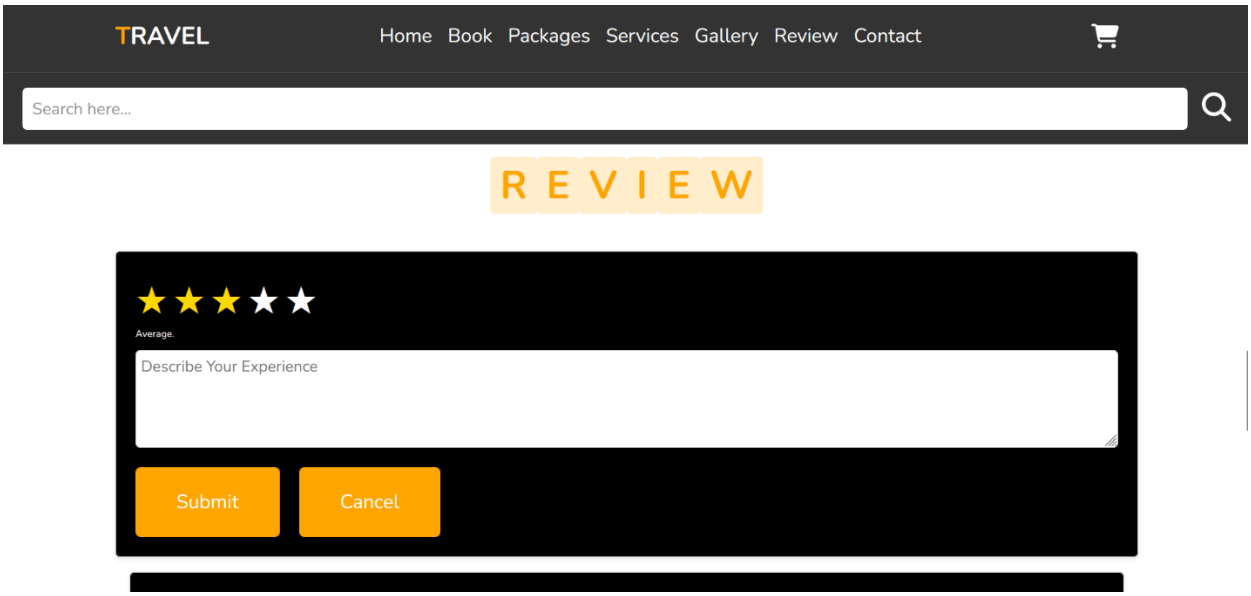


Figure 8 Review Section

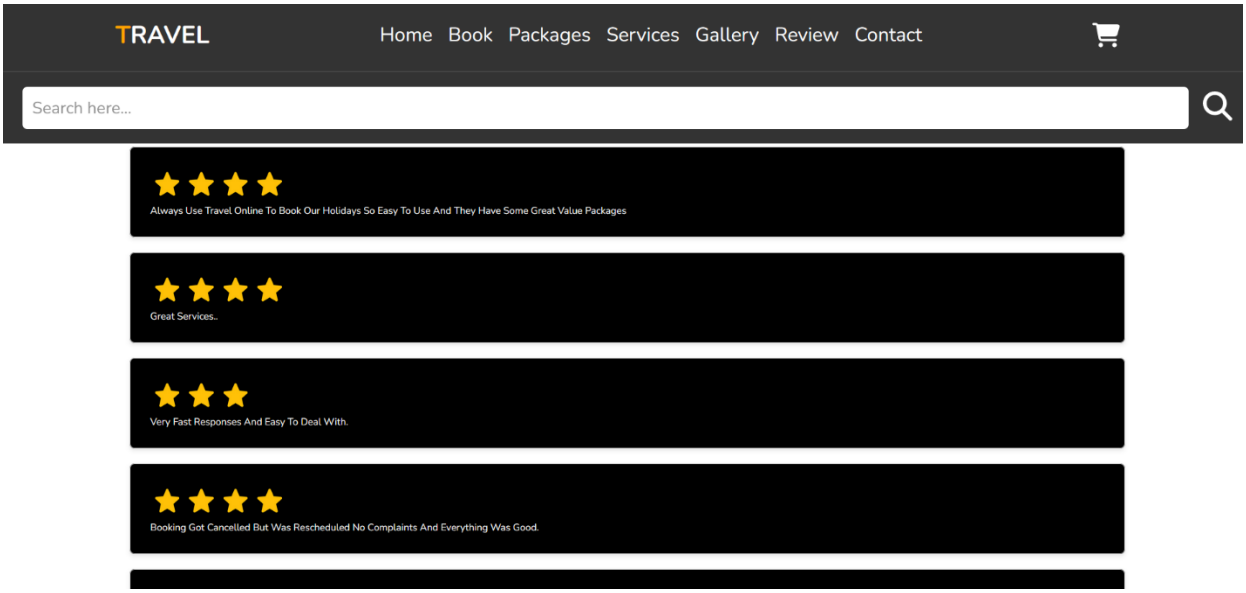


Figure 9 Rating Section

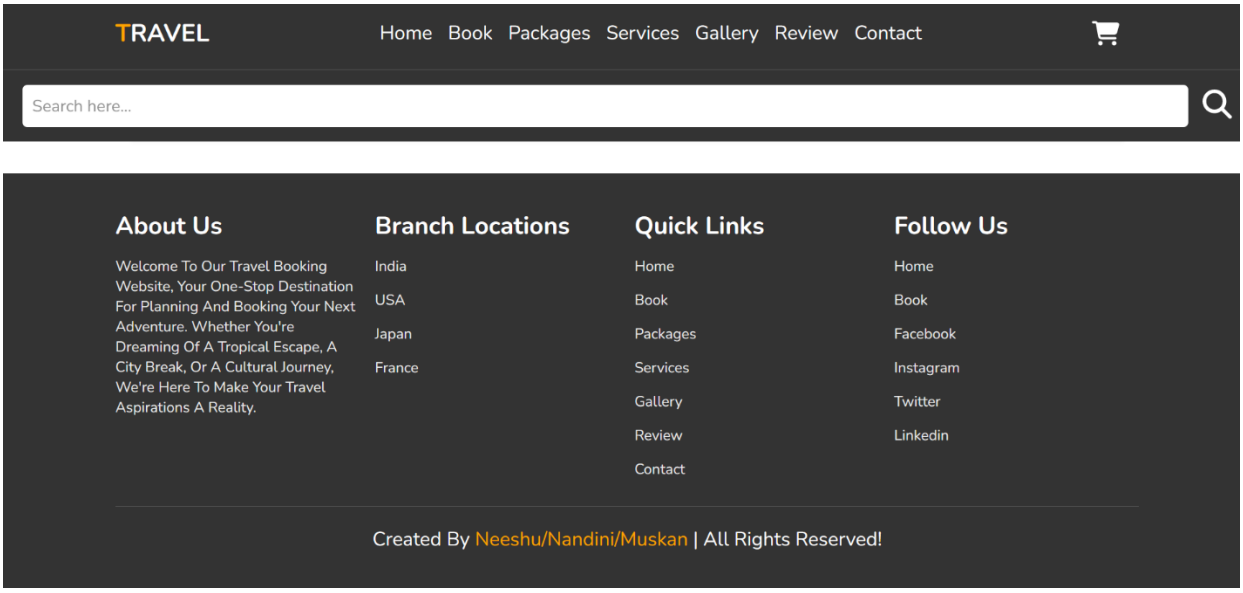


Figure 10 Footer Section

4.2 Code snippets of App.js

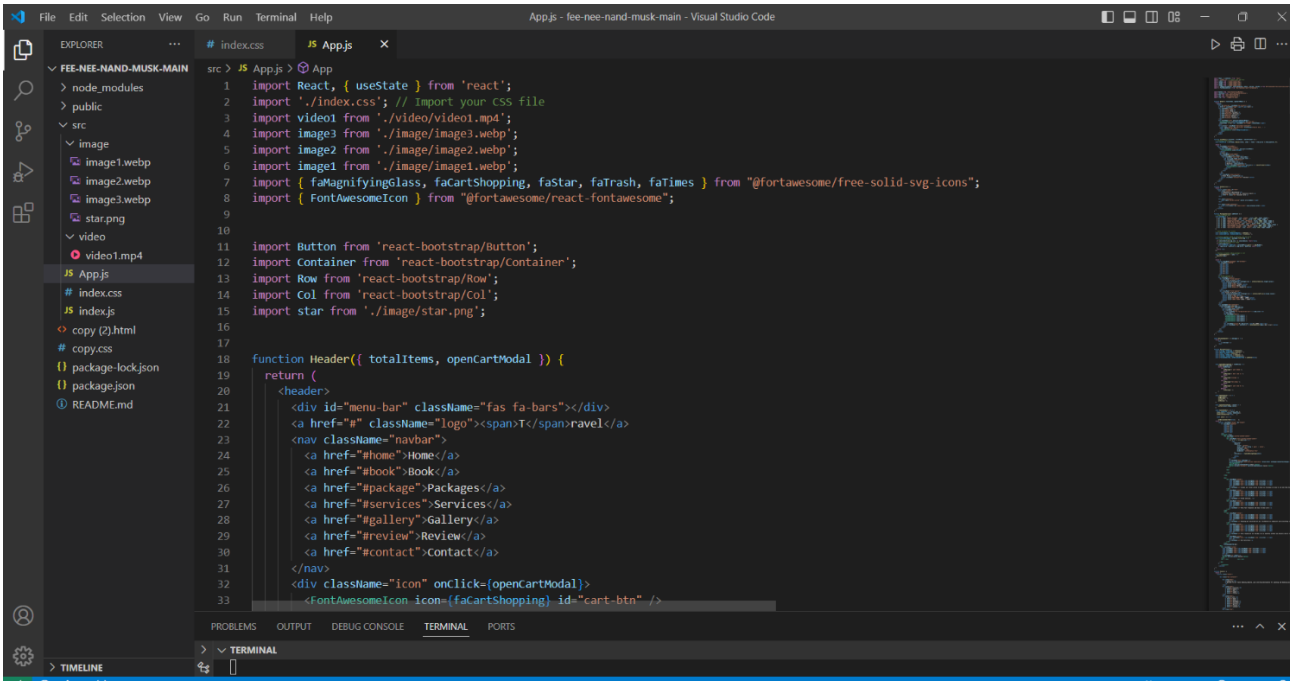


Figure 11 App.js

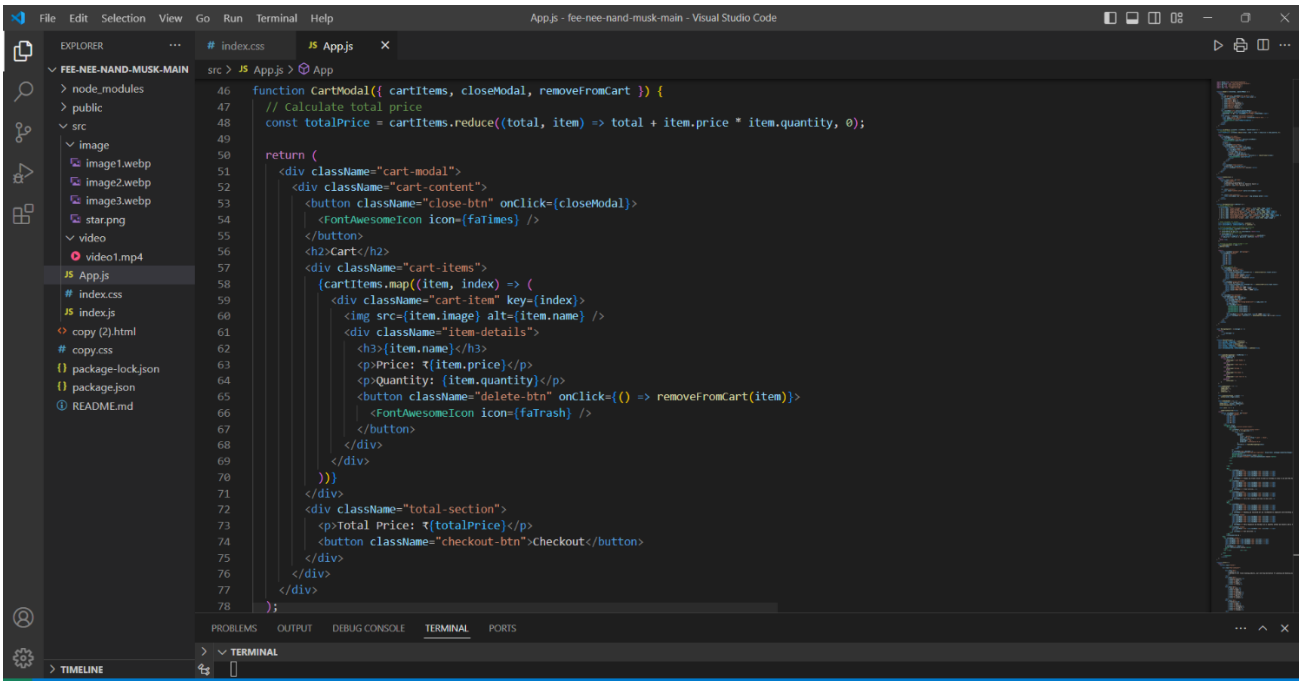


Figure 12 App.js

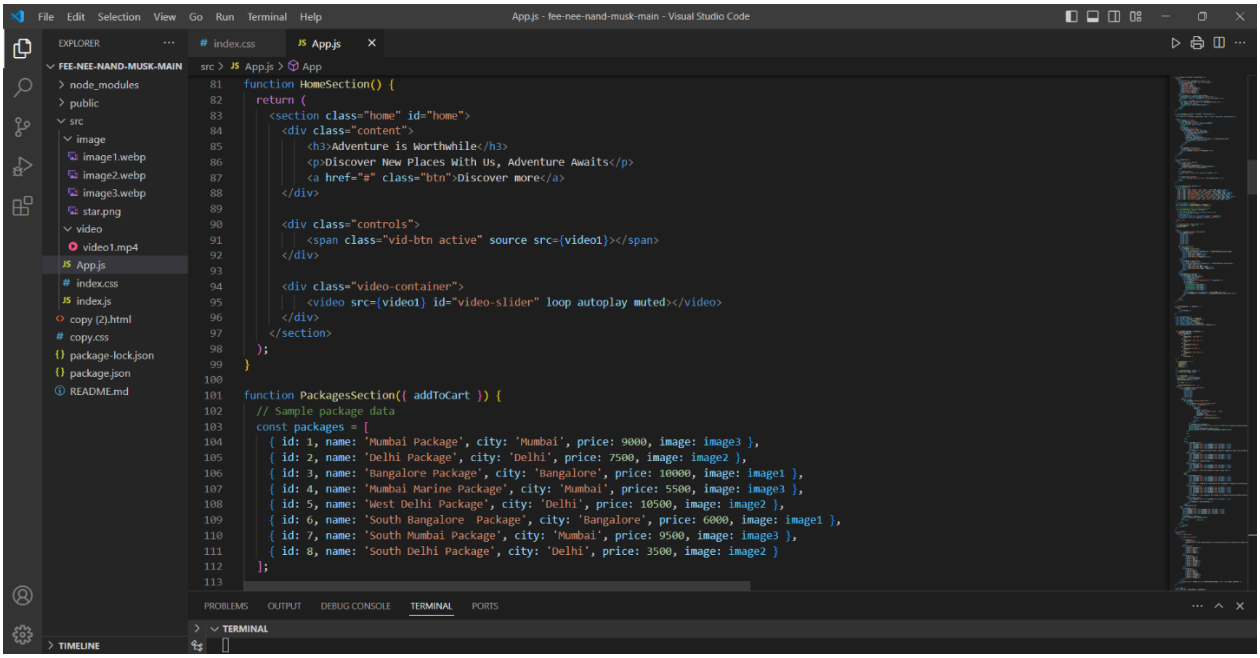


Figure 13 App.js

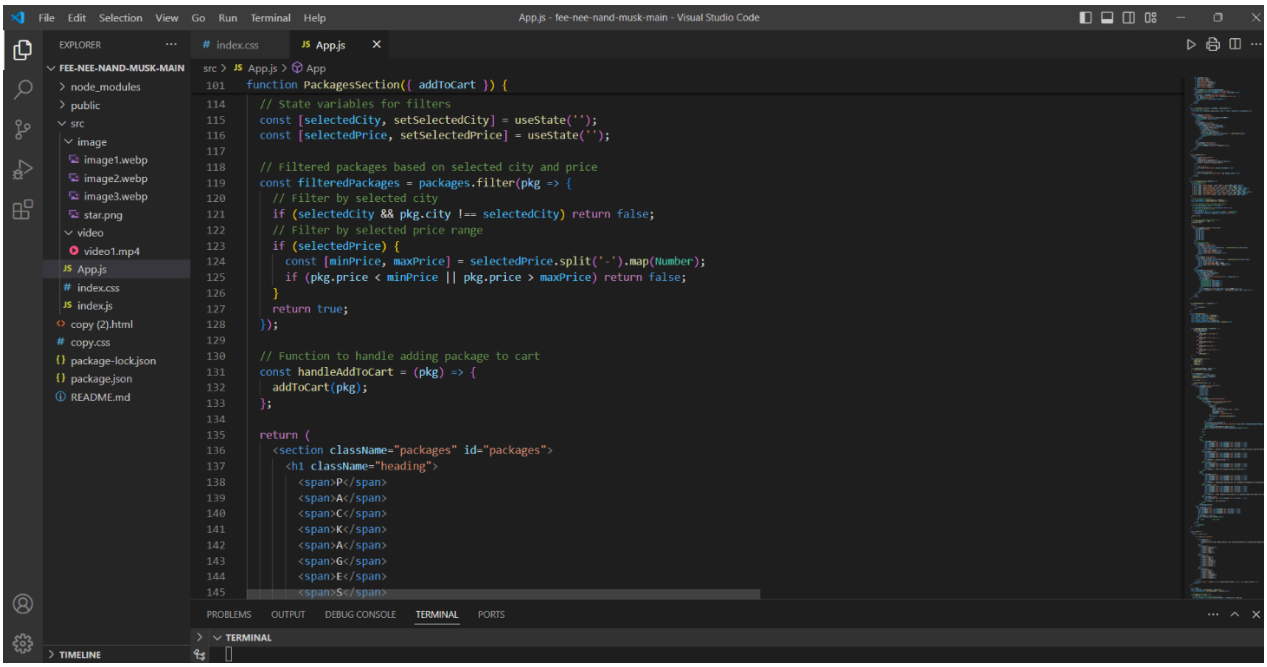


Figure 14 App.js

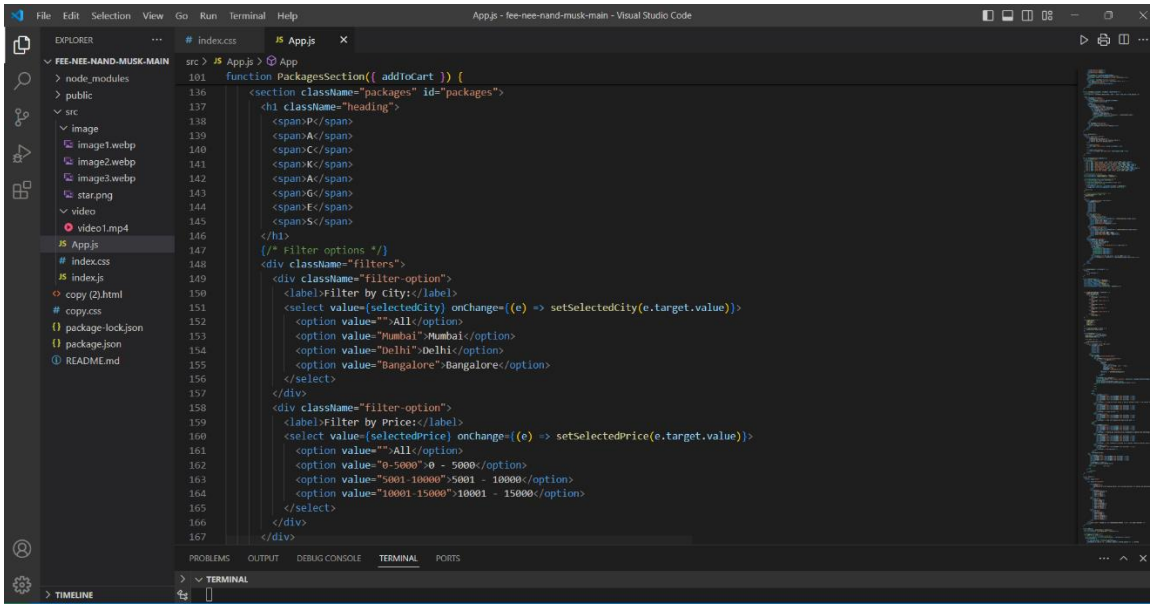


Figure 15 App.js

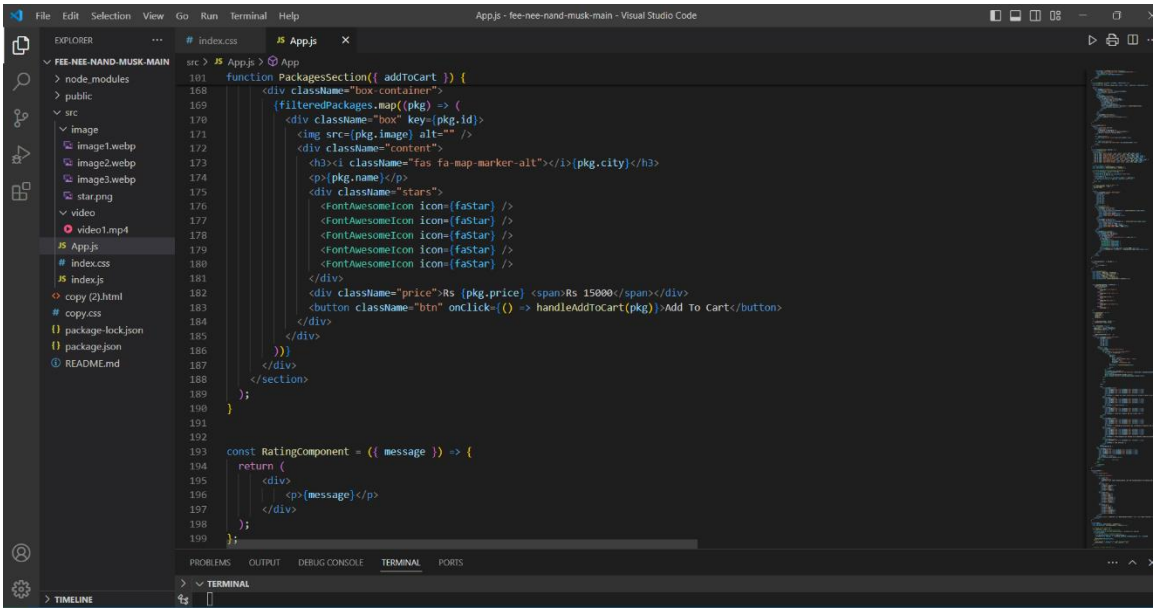


Figure 16 App.js

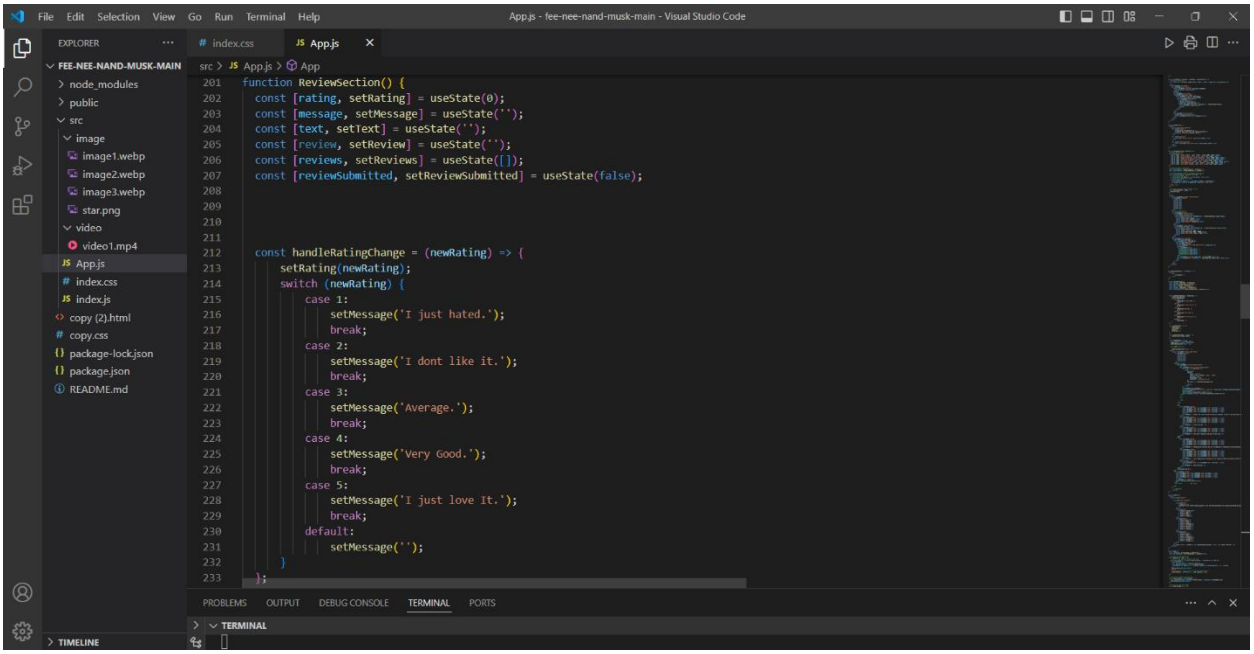


Figure 17 App.js

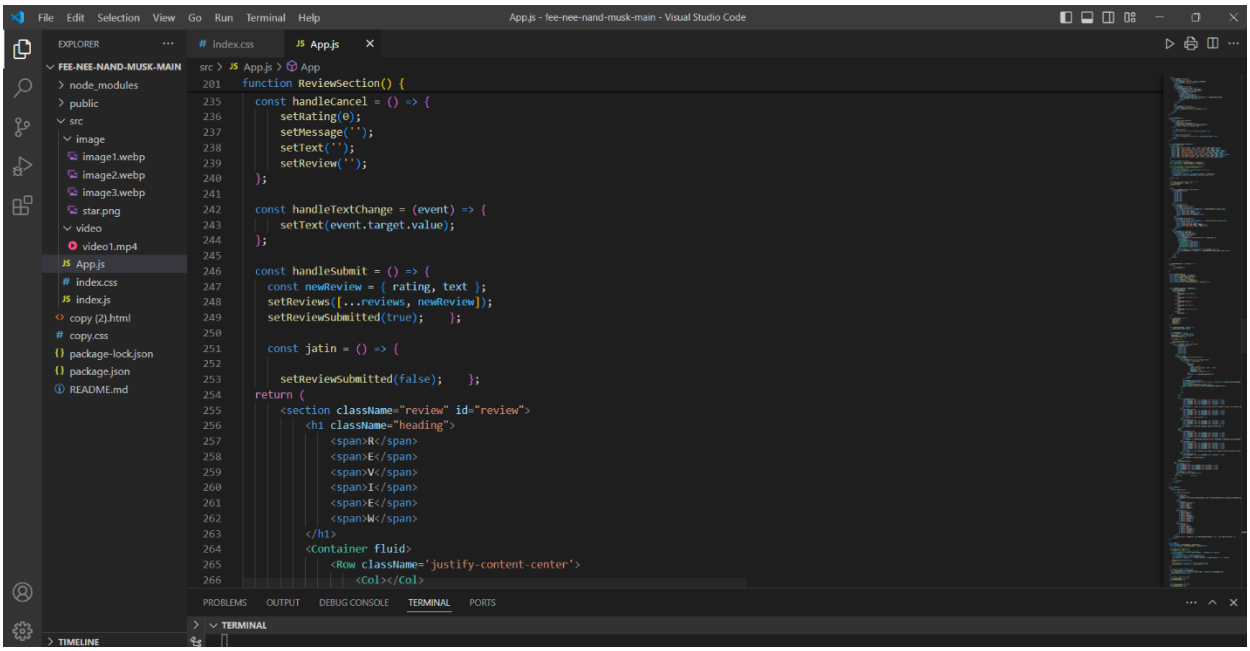


Figure 18 App.js

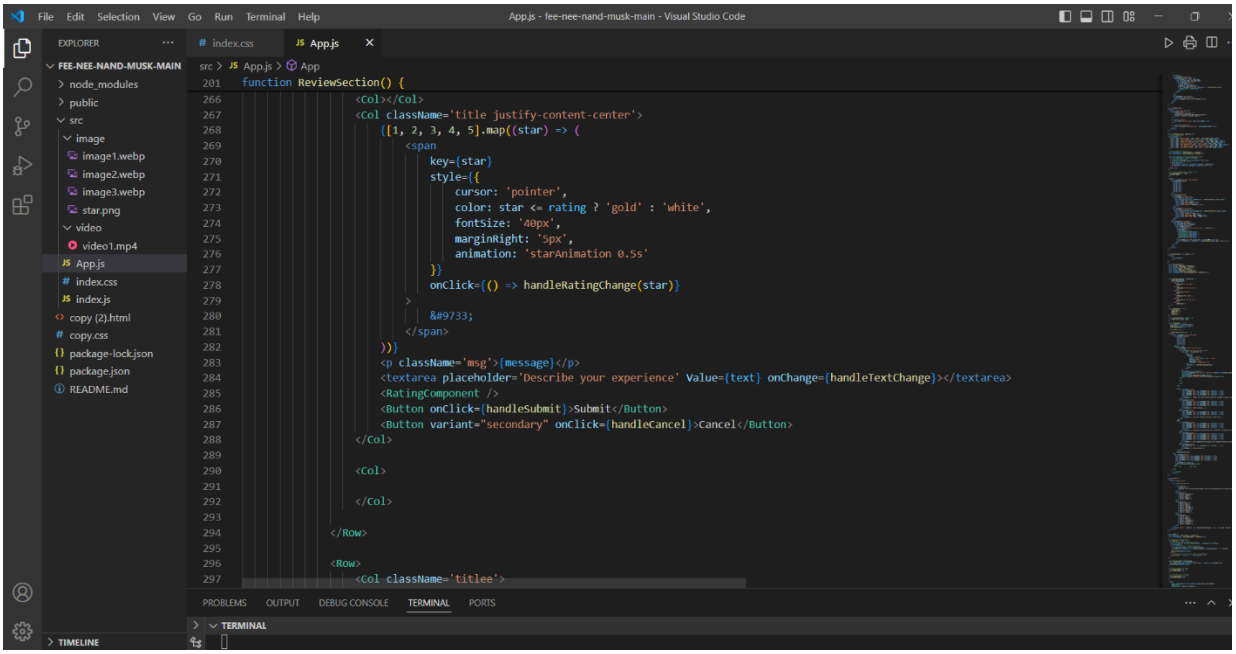


Figure 19 App.js

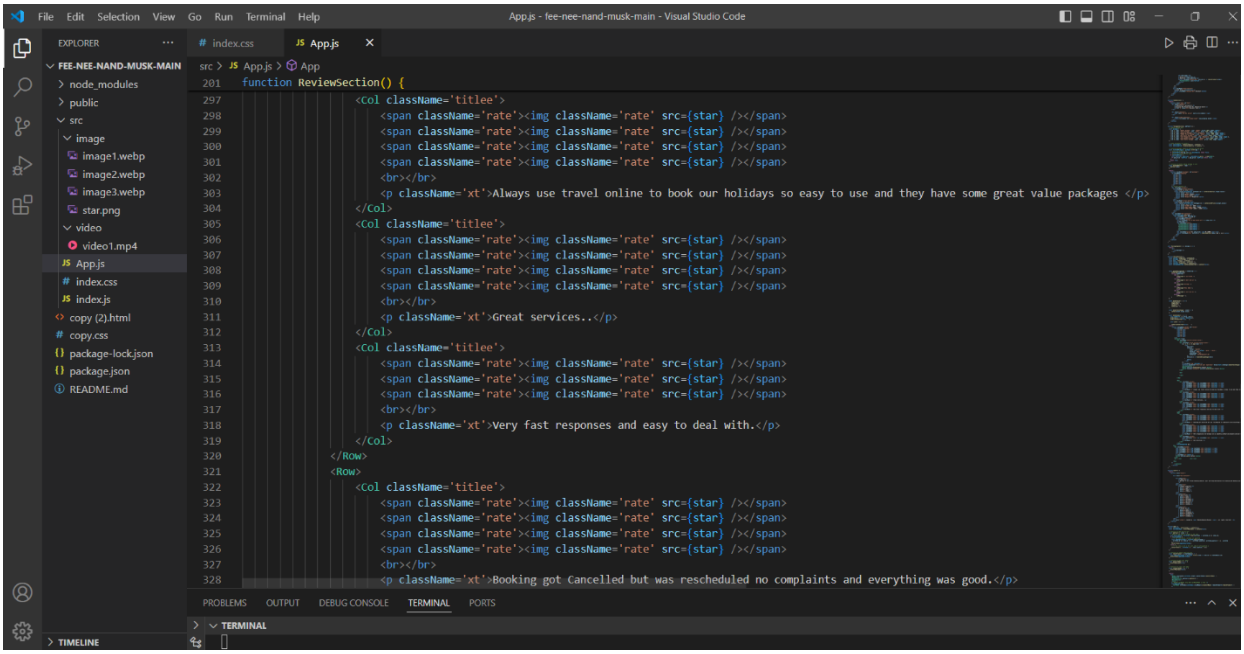


Figure 20 App.js

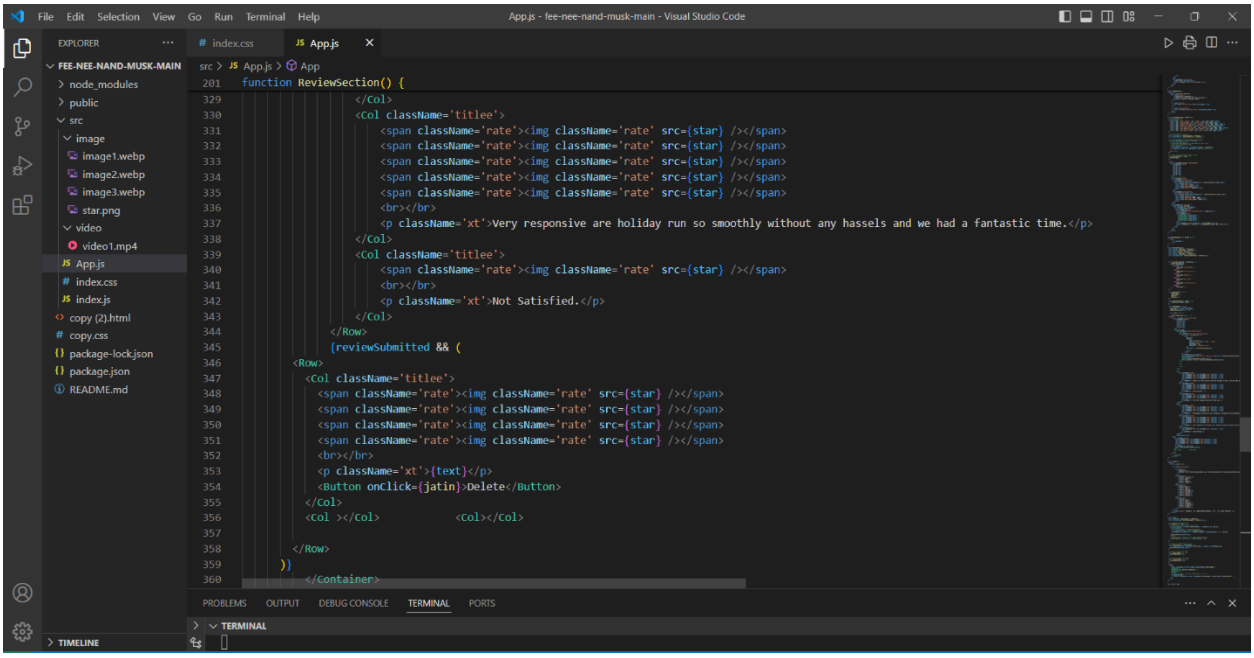


Figure 21 App.js

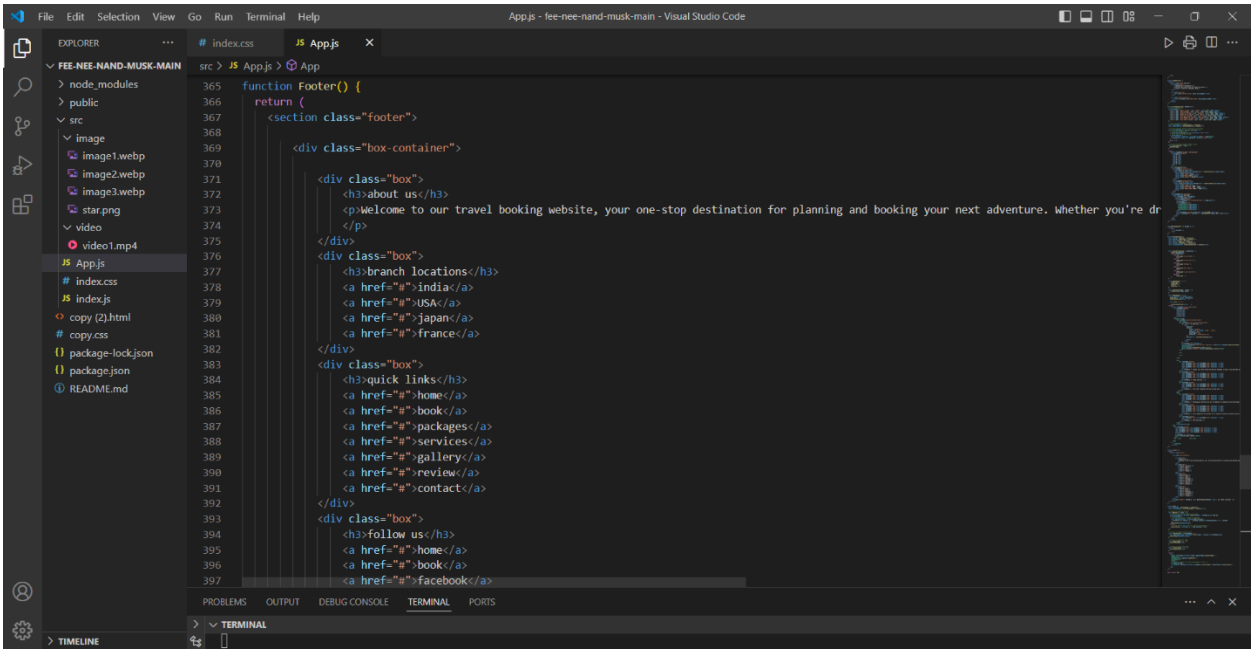


Figure 22 App.js

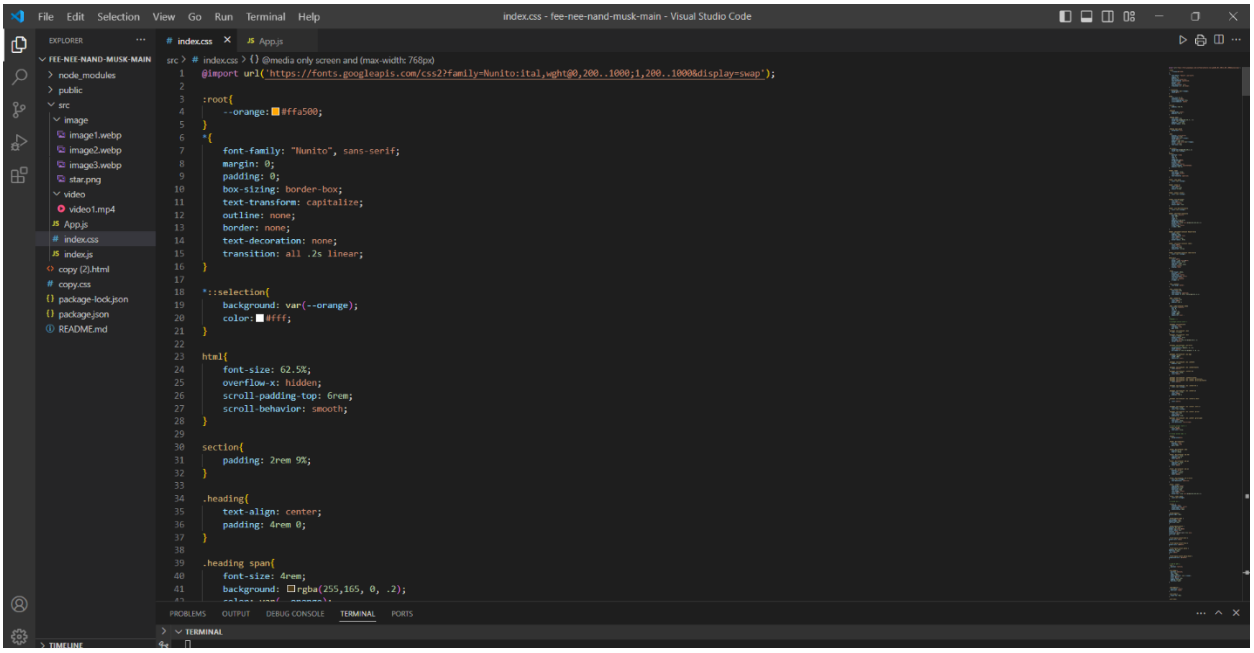
```
408 function App() {
409   const [cartItems, setCartItems] = useState([]);
410   const [cartModalOpen, setCartModalOpen] = useState(false);
411
412   // Function to add item to cart
413   const addToCart = (item) => {
414     // Check if the item is already in the cart
415     const existingItem = cartItems.find((cartItem) => cartItem.id === item.id);
416     if (existingItem) {
417       // If the item exists, increase its quantity
418       const updatedCartItems = cartItems.map((cartItem) =>
419         cartItem.id === item.id ? { ...cartItem, quantity: cartItem.quantity + 1 } : cartItem
420       );
421       setCartItems(updatedCartItems);
422     } else {
423       // If the item is not in the cart, add it with quantity 1
424       setCartItems([...cartItems, { ...item, quantity: 1 }]);
425     }
426   };
427
428   // Function to remove item from cart
429   const removeFromCart = (itemToRemove) => {
430     const updatedCartItems = cartItems.filter((item) => item.id !== itemToRemove.id);
431     setCartItems(updatedCartItems);
432   };
433
434   // Function to open cart modal
435   const openCartModal = () => {
436     setCartModalOpen(true);
437   };
438
439   // Function to close cart modal
440   const closeCartModal = () => {
```

Figure 23 App.js

```
408 function App() {
433
434   // Function to open cart modal
435   const openCartModal = () => {
436     setCartModalOpen(true);
437   };
438
439   // Function to close cart modal
440   const closeCartModal = () => {
441     setCartModalOpen(false);
442   };
443
444   return (
445     <div>
446       <Header totalItems={cartItems.length} openCartModal={openCartModal} />
447       <HomeSection />
448       <PackagesSection addToCart={addToCart} />
449       <ReviewSection />
450       <Footer />
451       {/* Render CartModal only when cartModalOpen is true */}
452       {cartModalOpen && (
453         <CartModal cartItems={cartItems} closeModal={closeCartModal} removeFromCart={removeFromCart} />
454       )}
455     </div>
456   );
457 }
458
459 export default App;
```

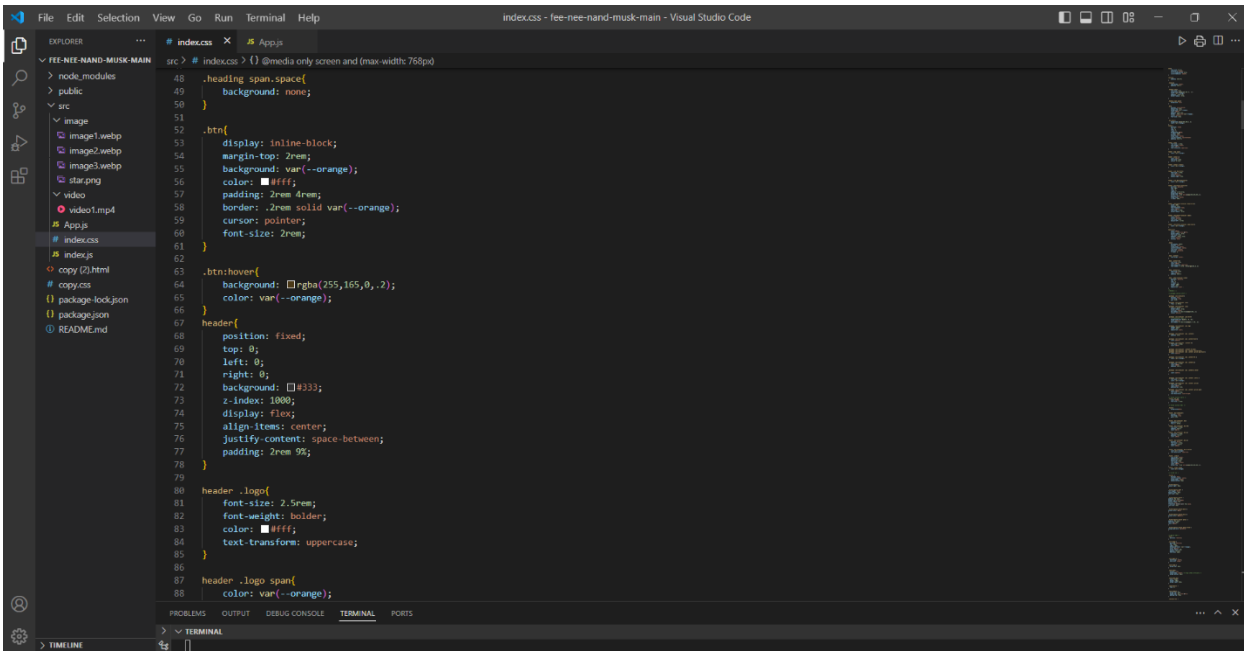
Figure 24 App.js

4.3 Code snippets of Index.css



```
@import url('https://fonts.googleapis.com/css2?family=Nunito:ital,wght@0,200..1000;1,200..1000&display=swap');

:root{
    --orange: #ffa500;
}
*{
    font-family: "Nunito", sans-serif;
    margin: 0;
    padding: 0;
    box-sizing: border-box;
    text-transform: capitalize;
    outline: none;
    border: none;
    text-decoration: none;
    transition: all .2s linear;
}

*::selection{
    background: var(--orange);
    color: #fff;
}

html{
    font-size: 62.5%;
    overflow-x: hidden;
    scroll-padding-top: 6rem;
    scroll-behavior: smooth;
}

section{
    padding: 2rem 9%;
}

.heading{
    text-align: center;
    padding: 4rem 0;
}

.heading span{
    font-size: 4rem;
    background: rgba(255,165, 0, .2);
```

Figure 25 Index.css



```
.heading span.space{
    background: none;
}

.btn{
    display: inline-block;
    margin-top: 2rem;
    background: var(--orange);
    color: #fff;
    padding: 2rem 4rem;
    border: .2rem solid var(--orange);
    cursor: pointer;
    font-size: 2rem;
}

.btn:hover{
    background: rgba(255,165,0,.2);
    color: var(--orange);
}
header{
    position: fixed;
    top: 0;
    left: 0;
    right: 0;
    background: #333;
    z-index: 1000;
    display: flex;
    align-items: center;
    justify-content: space-between;
    padding: 2rem 9%;
}

header .logo{
    font-size: 2.5rem;
    font-weight: bolder;
    color: #fff;
    text-transform: uppercase;
}

header .logo span{
    color: var(--orange);
```

Figure 26 Index.css

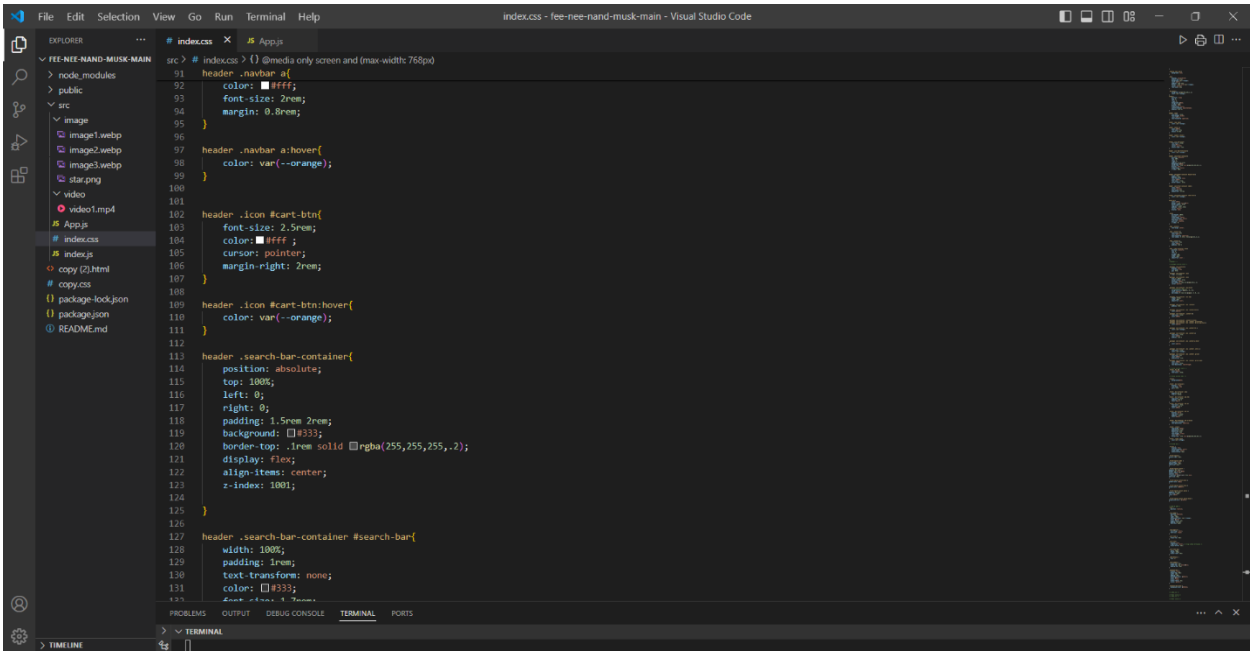


Figure 27 Index.css

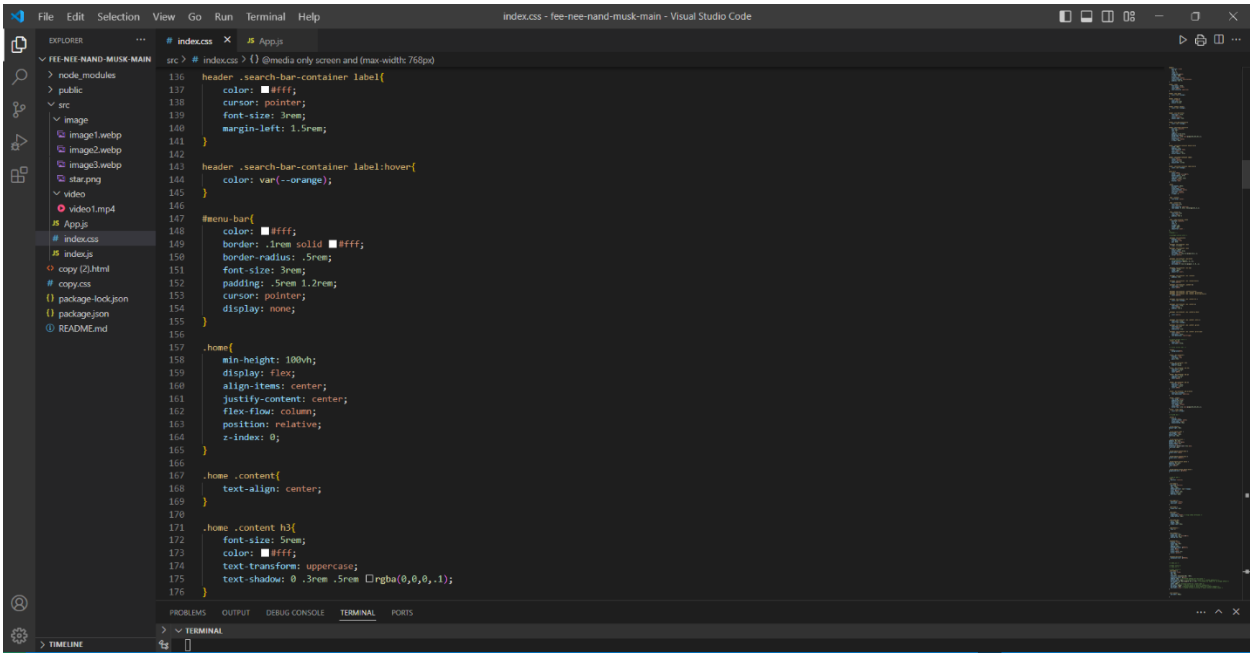


Figure 28 Index.css

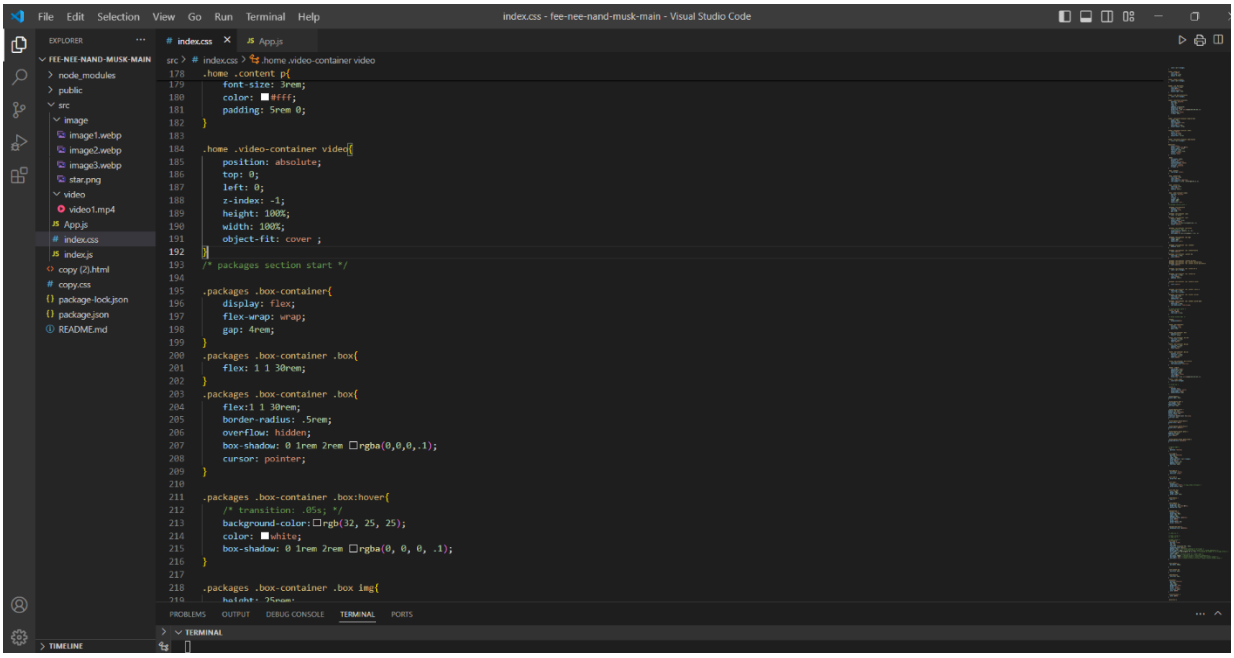


Figure 29 Index.css

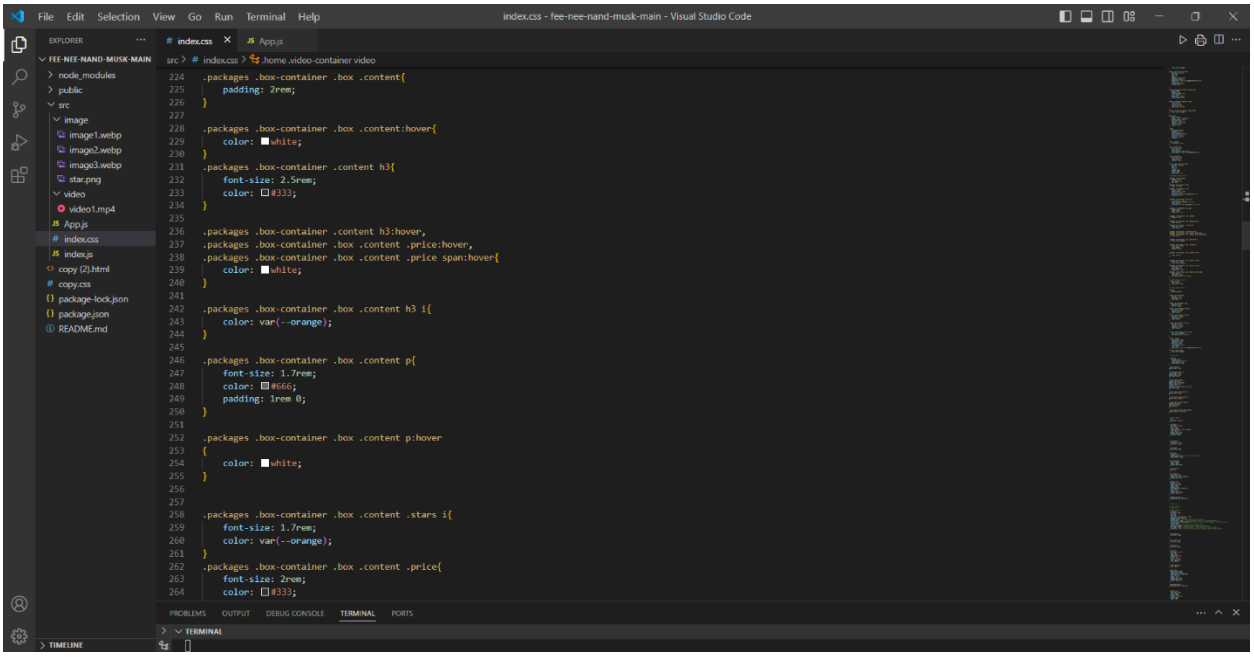


Figure 30 Index.css

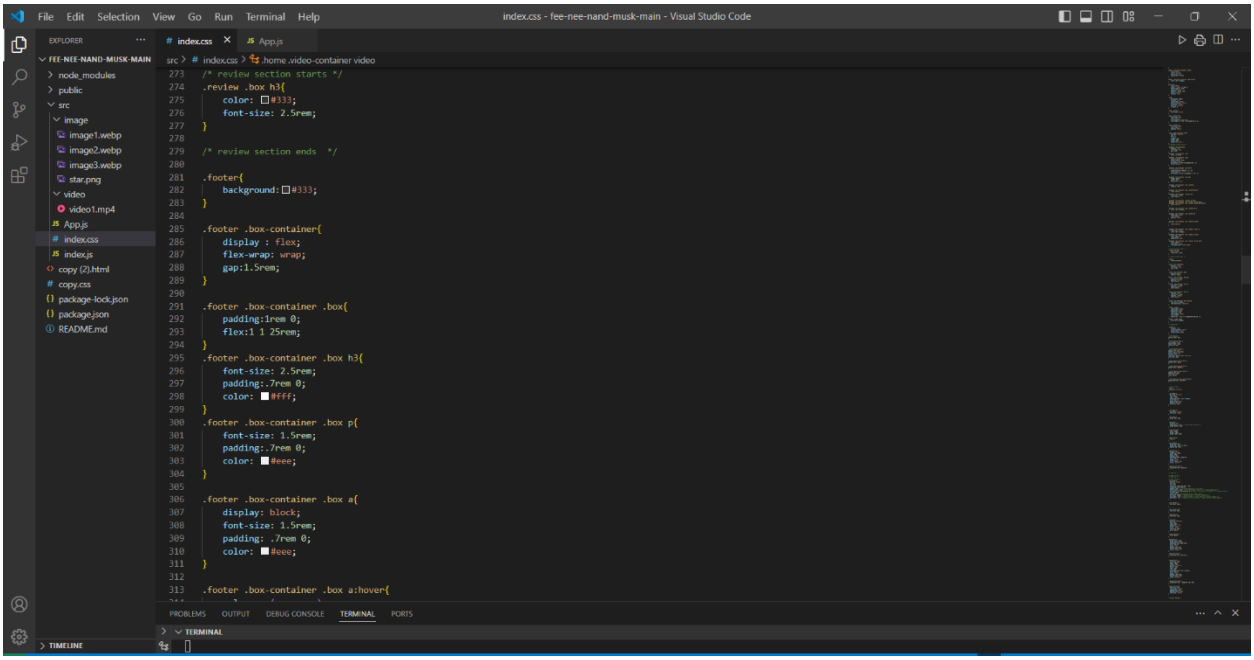


Figure 31 Index.css

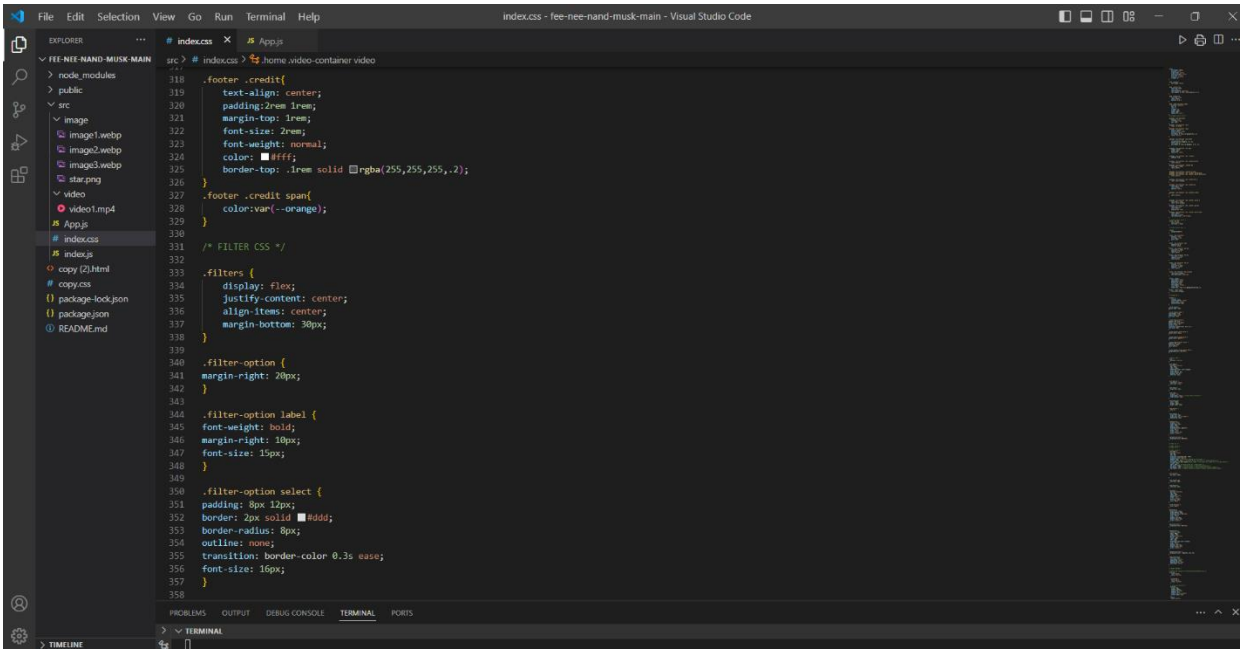


Figure 32 Index.css

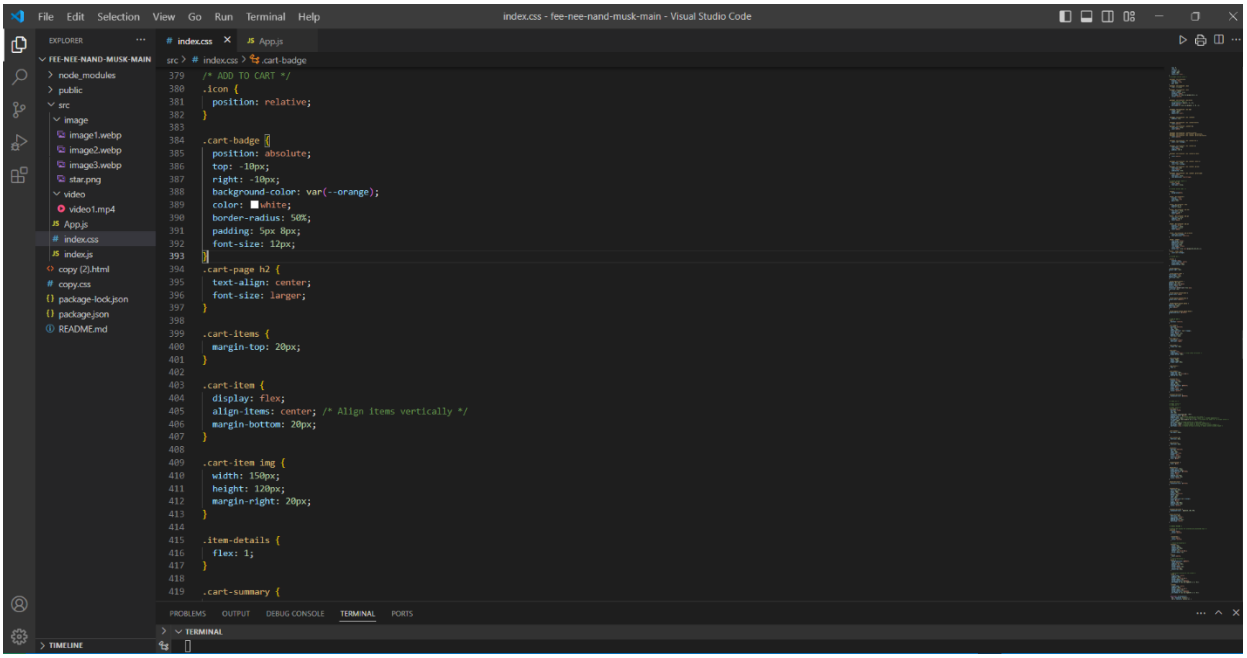


Figure 33 Index.css

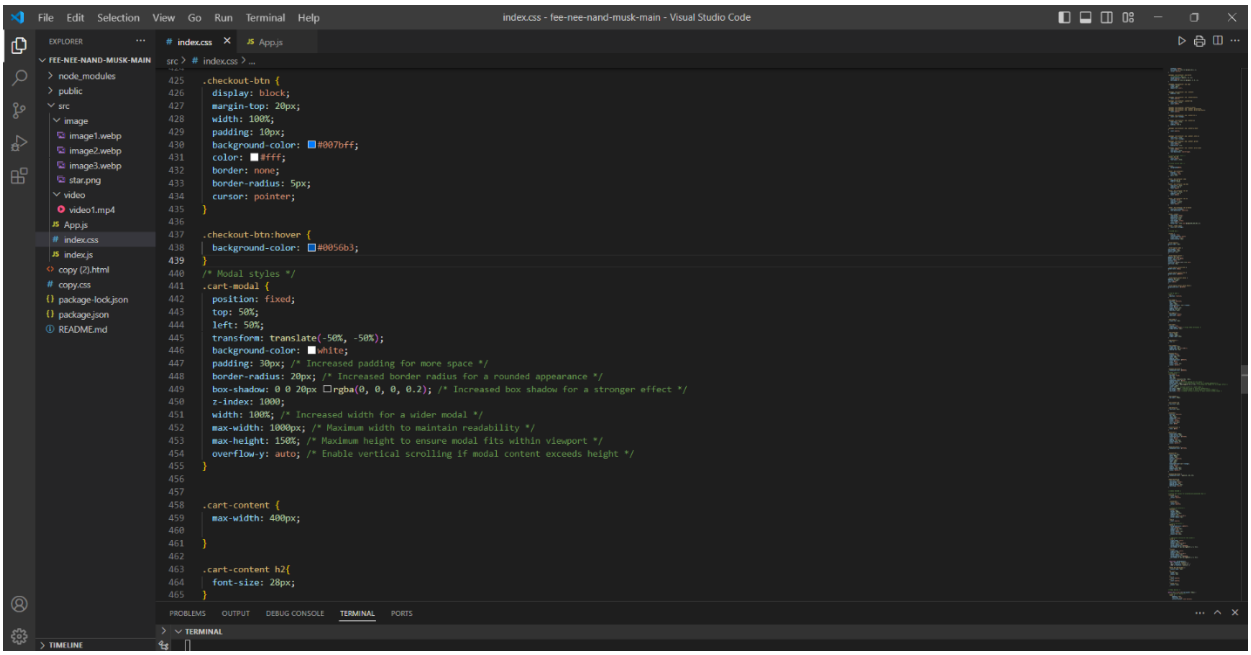


Figure 34 Index.css

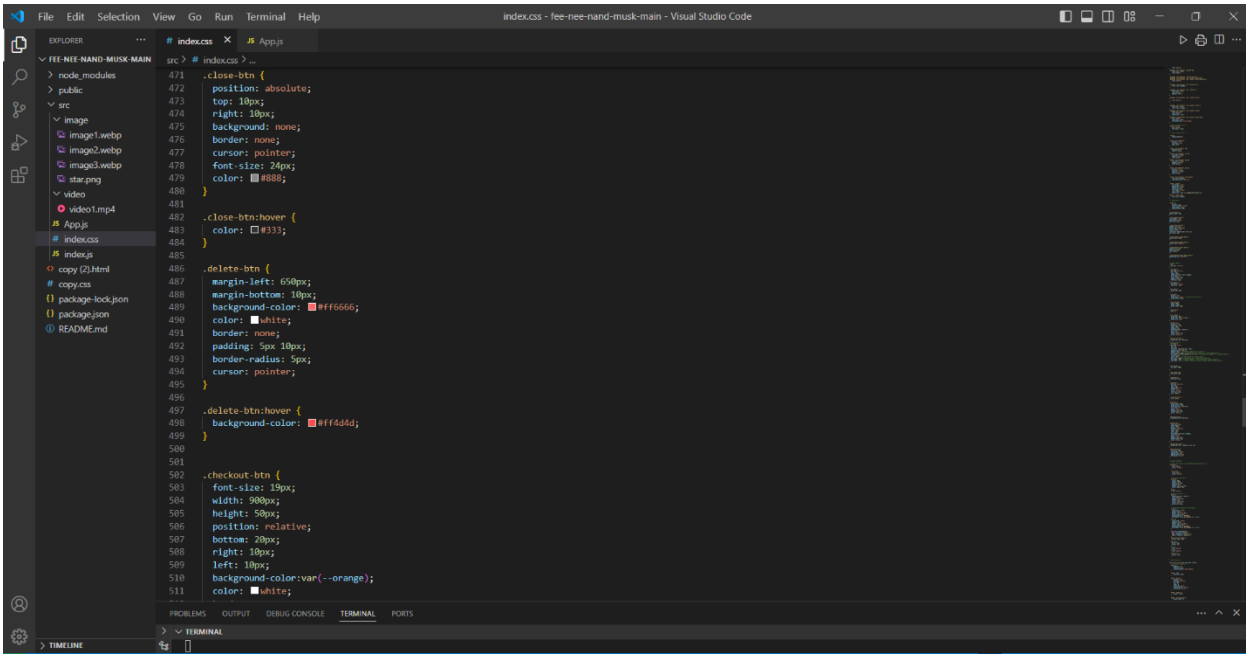


Figure 35 Index.css

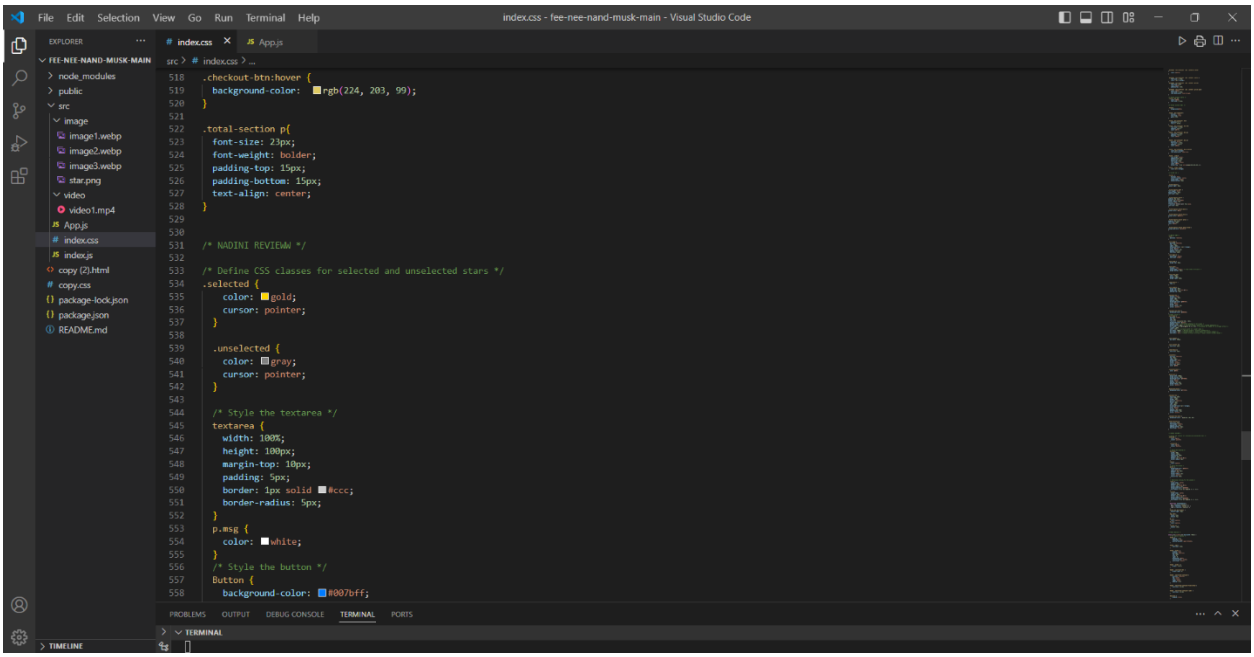


Figure 36 Index.css

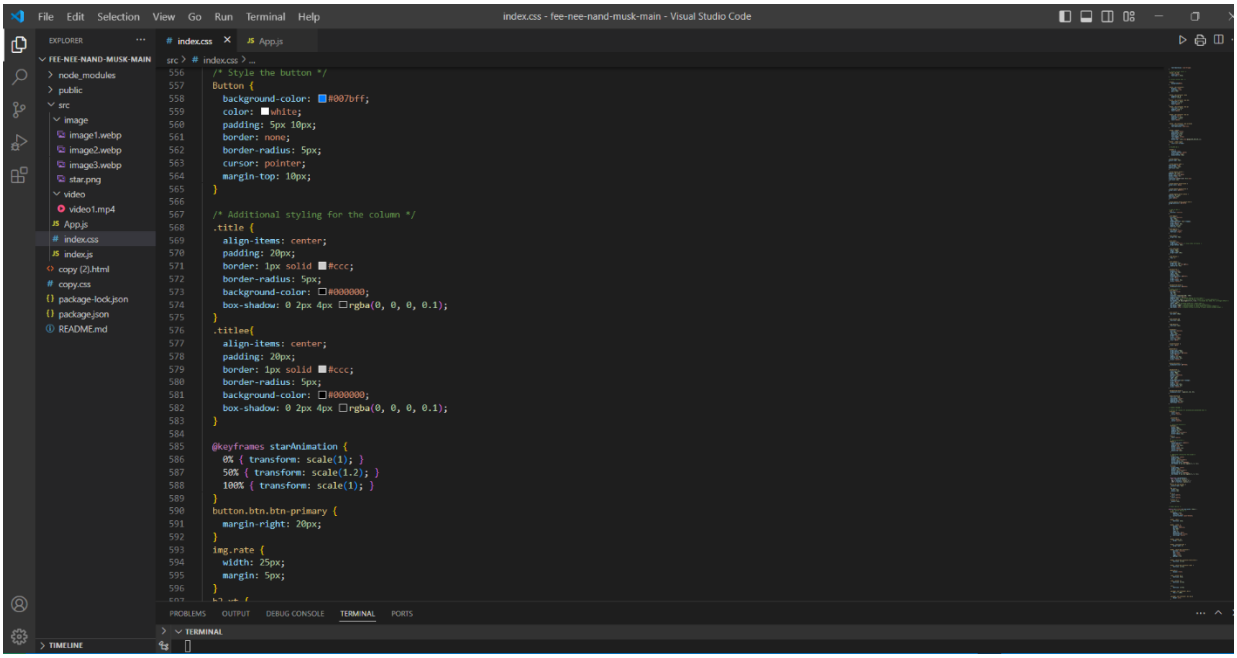


Figure 37 Index.css

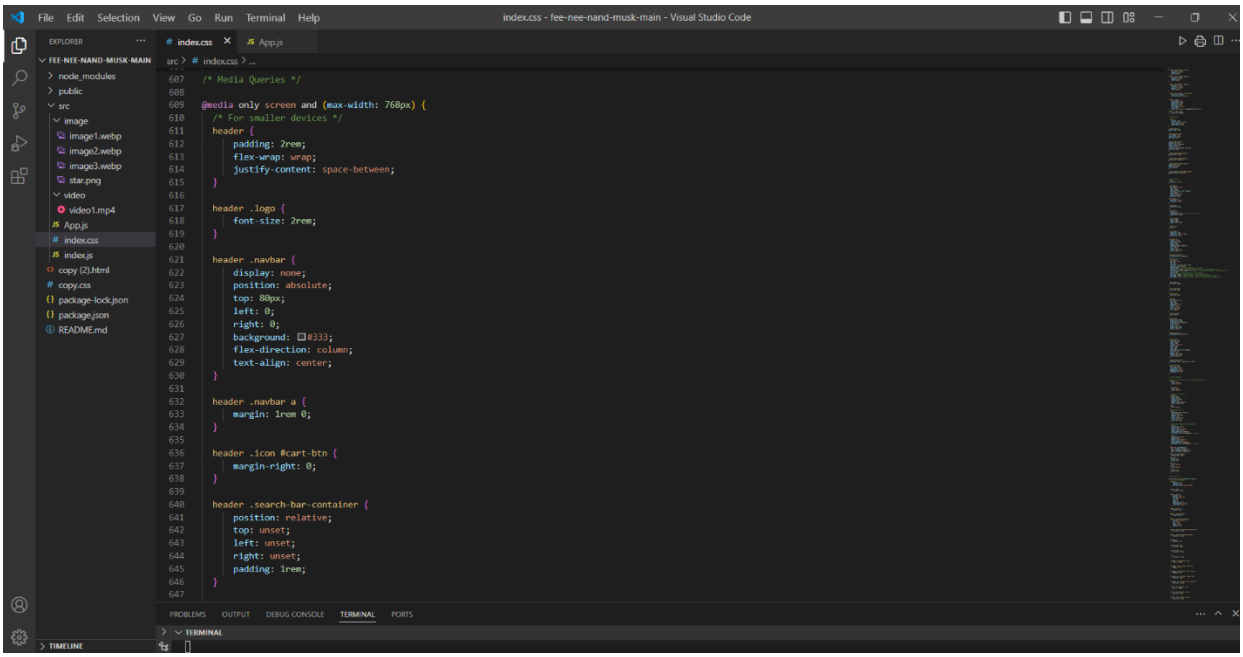


Figure 38 Index.css

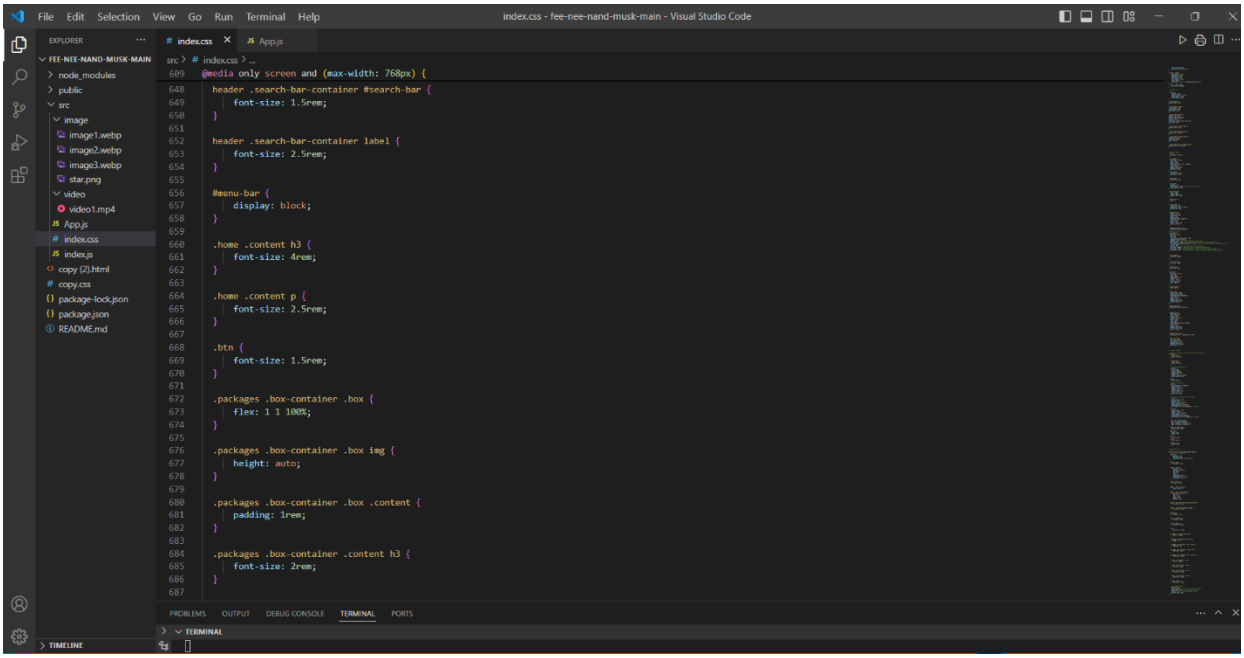


Figure 39 Index.css

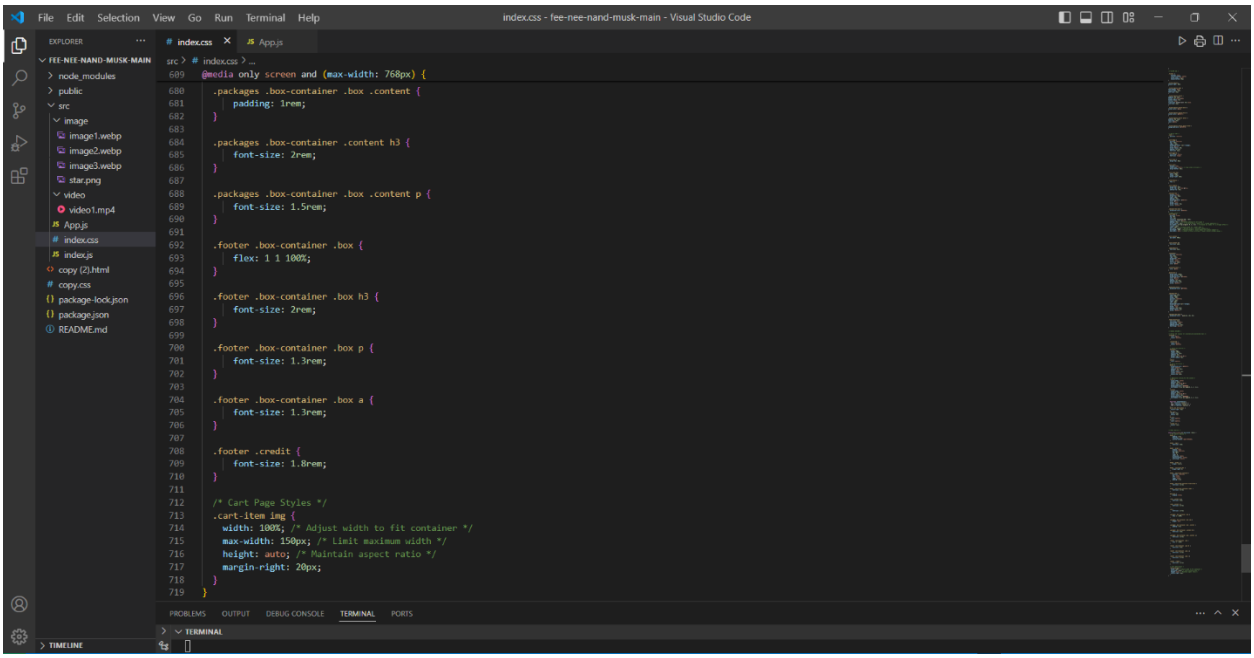


Figure 40 Index.css

4.4. REFERENCES

[1] https://stackoverflow.com
[2] https://www.incredibleindia.org
[3] https://www.makemytrip.com