

**MCA Semester – III**

**Front End Development Project**

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| --- | --- |
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**Front End Development Project - Report**

Project Report submitted to Jain Online (Deemed-to-be University) as part of the course “Front End Development Project”

**Master of Computer Applications**

*Submitted by*

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USN

(221VMTR02447)

*Under the*

*guidance of*

(Nikhil Eknath Karale)

**DECLARATION**

I, *Supriya Gupta* hereby declare that this Project Report has been prepared by me under the guidance of Nikhil Eknath Karale*.* I declare that this Project is towards the partial fulfilment of the credit requirement for the course “Front End Development Project,” which is part of the Master of Computer Applications degree given by Jain University, Bengaluru. I declare that the work done by me towards this Project is original in nature and is my own contribution.

Place: Bangalore Supriya Gupta

Date: 24/12/2023

*USN:* 221VMTR02447

**CERTIFICATE**

This is to certify that the Project report submitted by Mr./Ms. *Supriya Gupta* bearing *(*221VMTR02447*)* on the title **“Front End Development Project”**is a record of project work done by him/ her during the academic year 2023-24 under my guidance and supervision in partial fulfilment of Master of Computer Applications.

Place: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: *Faculty Guide*

**ACKNOWLEDGEMENT**

The Learners express their heartfelt gratitude to the following individuals whose unwavering support and guidance played a pivotal role in the successful completion of the research project, "Fun Trip (Booking of Trip and Tour Packages)."

First and foremost, we extend our sincere thanks to our esteemed organization guide, [Guide's Full Name], whose valuable insights and encouragement propelled us forward throughout the project. Their expertise and mentorship were instrumental in shaping the direction of our research.

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In conclusion, the Learners would like to express their deepest appreciation to everyone mentioned above, as well as anyone else who contributed to the successful completion of the project. Your support has been integral to our academic achievement, and we are truly grateful.

Top of Form

Supriya Gupta

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**EXECUTIVE SUMMARY**

Project Name: Fun Trip

Fun Trip is an innovative application designed and developed using cutting-edge technologies, including React, Material UI, React Router DOM, and Local Storage. This project aims to provide users with a seamless and enjoyable experience in booking trip and tour packages for tourist destinations worldwide.

Key Features:

1. **Technological Foundation:**
   * Fun Trip leverages the power of React, a popular JavaScript library, to ensure a dynamic and responsive user interface.
   * The use of Material UI enhances the visual appeal and user experience, providing a modern and intuitive design.
   * React Router DOM facilitates seamless navigation, ensuring users can effortlessly explore different sections of the application.
2. **User Registration and Login:**
   * The application employs Local Storage to securely store user registration details and login information, ensuring a personalized and secure experience for each user.
3. **Booking Functionality:**
   * The application features a user-friendly interface with distinct sections, including the Home Page, Services, About Us, and Gallery. This ensures that users can easily access relevant information and navigate through the app effortlessly.

Fun Trip envisions revolutionizing the way users plan and book their travel experiences.

In summary, Fun Trip represents a dynamic and user-centric solution for individuals seeking a comprehensive platform to explore, plan, and book their next exciting adventure. Through its use of modern technologies and thoughtful design, Fun Trip sets a new standard for user engagement in the travel and tourism industry

1. **Introduction**

Welcome to Fun Trip – Your Gateway to Seamless Travel Experiences!

## Project Overview

Fun Trip is a state-of-the-art travel application that redefines the way users plan and embark on their journeys. Developed using the latest technologies, including React, Material UI, React Router DOM, and Local Storage, Fun Trip offers a dynamic and user-friendly platform for booking trip and tour packages to destinations around the globe.

## Vision

Our vision is to provide users with an unparalleled travel booking experience, combining innovative technology with an intuitive design. Fun Trip aims to be the go-to solution for individuals seeking a seamless and enjoyable way to explore, plan, and book their dream vacations.

## Key Features

* **Cutting-Edge Technology:** Fun Trip harnesses the power of React, ensuring a responsive and engaging user interface. Material UI enhances the visual appeal, creating a modern and user-centric design.
* **Secure User Experience:** Leveraging Local Storage, Fun Trip ensures the safety of user registration details and login information, offering a personalized and secure environment.
* **Effortless Booking:** With Fun Trip, users can effortlessly browse and book trip and tour packages, streamlining the process of planning their adventures across diverse tourist destinations worldwide.

## Purpose

Fun Trip is more than just a travel application; it's a tool designed to inspire and facilitate unforgettable travel experiences. Join us on this exciting journey as we redefine travel planning and booking. Fun Trip – Where Every Journey Begins!

**2. Objectives**

**2.1 Checkpoint - 1**

## 1. Empowering Seamless Travel Planning

The primary objective of Fun Trip is to empower users with a seamless and efficient platform for planning their travel experiences. By leveraging cutting-edge technologies, we aim to simplify the process of exploring and booking trip and tour packages, ensuring a user-friendly interface that caters to the diverse needs of our audience.

I have developed on Initial development and added ui for Navigation bar using Material UI AppBar component and its content, and dashboard with Welcome message and Booking button with wide background Image.

**2.2 Checkpoint - 2**

## Enhancing User Experience Through Technology

Fun Trip is committed to enhancing the overall user experience by incorporating advanced technologies. The use of React ensures a dynamic and responsive interface, while Material UI adds a modern and visually appealing touch to the application. React Router DOM facilitates smooth navigation, offering users an intuitive and enjoyable journey through the platform.

Developed:

1. In the 50% width **add image** related to brand or company.  
  
In the right 50% width **add a form** which contain following information   
a. **Where to**(**dropdown** list should be visible containing some sample places)  
b. **How Many Person**  
c. **Start Date** (should take **future date**)  
d. **End Date** (should **accept greater date than start date**)  
e. **Description.** (Should be **text area**minimum 50 characters and maximum 500 characters need to be enter.)  
f. **Book Now button** (after clicking it, if all the fields are filled, then **alert** should appear with message, booking successful)’

2. In the next Section, **Package gallery** should be visible, in one row, user should able to see 3 package, total **create 3 row having 9 package.**  
  
Each package should be visible in **card (box).** In the card, display **image** of the place first, then **add Place Name** as heading and below placename, **add small paragraph** (attractions) of the place.  
  
Price which should be in **USD Dollar, Rating and Book now button.**

**2.3 Checkpoint - 3**

Fun Trip aims to streamline the booking process, allowing users to effortlessly browse, select, and book trip and tour packages. Our objective is to make travel planning a hassle-free and enjoyable experience, catering to both seasoned travelers and those embarking on their first adventure.

Developed:

#### After Services Sections, ****added Gallery section**** where you need to add various photos, glimpse experienced by the company. These gallery is design as per my convenience. Added ****transform (scale) css property**** to the images, when user ****hover mouse**** on it.

**2.4 Checkpoint - 4**

Beyond functionality, Fun Trip aspires to inspire wanderlust and a sense of adventure. Through captivating visuals, informative content, and an engaging user interface, our objective is to ignite the passion for exploration and discovery, encouraging users to embark on exciting journeys to new and exotic destinations.

Finally implemented Login and Registration Functionality using Local Storage.

Also added form validation using Java Script.

Used Technologies:

* REACT JS
* MATERIAL UI
* REACT RAOUTER DOM
* LOCAL STORAGE
* HTML
* CSS
* BOOTSTRAP

**3. Project Description**

**3.1 Checkpoint - 1**

**Creating the Welcome Page**

In the first checkpoint we created a welcome page that is visible to the user when they visit our site it includes a home page with a navbar at the top of the page that includes a brand name and six navigation menu items and has a login and register buttons in it. Then after the nav bar we had added a background image which has a good clarity that occupied 100% width and 90vh with a brand name on the first line and placename on the second line that changes every 0.5ms and at last we added a "Book Now" button.

**3.2 Checkpoint – 2**

**Sections, Forms, Package Gallery, and Services**

In the second checkpoint we have to create Two sections with image and form each section takes a 50% width of the page in the left side we have added an image of our travel tour and on the right side we have added a form for the booking process the form includes Where to (dropdown list should be visible containing some sample places), How Many Person, Start Date (should take future date),End Date (should accept greater date than start date)Description (Should be textarea minimum 50 characters and maximum 500 characters need to be enter.) and a Book Now button.

After that we should add a gallery section where we display three packages in each row with a total of nine package. For each package we had used card with a image that displays the name and price. At last, we added a service section of what services are provided from our sides.

**3.3 Checkpoint – 3**

**Gallery, About Us, and Footer**

In the third checkpoint we have created a gallery section which Include various photos showcasing experiences of the company. We have used cards in making this section and has applied transform(scale) property for hover effect. After that we have a about us section which has two sections of 50% width each which shows our companies information, establishment details and all. At last we added a footer at the bottom of the page that includes our brand name and social media icon and a copyright symbol.

**3.4 Checkpoint - 4**

**Registration, Login, and Deployment**

In the fourth checkpoint we have created a Registration page of our website which Implement a registration functionality triggered by clicking the Register button. We have created a separate page for our registration model and has linked with out Index.html page in the Registration form we included fields like name, contact, dob, email, password, gender and a Register button and a link below which redirects to the login page. The same we have included for our Login page we have used some styles for our CSS part and used basic JavaScript for a proper validation of the form at last we have deployed it to Netlify.

1. **Additional Features**

Highlight any extra functionalities or enhancements beyond the project's core functionality

that set your project apart.

Explain why these features were included and how they contribute to the project's success.

User Reviews and Ratings:

Explanation: Allowing users to leave reviews and ratings for packages and services provides valuable social proof. Users can share their experiences, contributing to a community-driven platform. Contribution: Builds trust among users, helps them make informed decisions, and fosters a sense of community within the platform.

Personalized Travel Journals:

Explanation: Users can create personalized travel journals within the platform, documenting their experiences, uploading photos, and sharing insights. This feature adds a personal touch to the platform, creating a sense of connection. Contribution: Enhances user engagement, encourages user-generated content, and creates a community of travellers sharing their unique stories.

**5. Flowchart**

****

**6. Coding**

### Technologies, Frameworks, and Languages Used:

1. **React JS:**
   * **Purpose:** React JS is the core framework for building the user interface of Fun Trip, providing a component-based architecture that facilitates the development of dynamic and interactive web pages.
   * **Code Snippet (Example Component):**

**Material UI:**

* **Purpose:** Material UI is used for styling and theming the application, offering pre-built React components with a Material Design look and feel.
* **Code Snippet (Example Material UI Button):**

**Material UI:**

* **Purpose:** Material UI is used for styling and theming the application, offering pre-built React components with a Material Design look and feel.
* **Code Snippet (Example Material UI Button):**

**React Router DOM:**

* **Purpose:** React Router DOM is employed for handling navigation within the application, allowing users to move between different sections seamlessly.
* **Code Snippet (Example Route Configuration):**

**Local Storage:**

* **Purpose:** Local Storage is utilized to store user registration details and login information securely on the client side.
* **Code Snippet (Example Local Storage Handling):**

**HTML, CSS, Bootstrap:**

* **Purpose:** HTML is used for structuring the content, CSS for styling, and Bootstrap for a responsive and mobile-first design approach.
* **Code Snippet (Example HTML and CSS):**

### Coding Challenges and Solutions:

1. **State Management:**
   * **Challenge:** Managing state in a complex application can be challenging.
   * **Solution:** Utilize React state management and, if necessary, external state management libraries like Redux for centralized state control.
2. **Responsive Design:**
   * **Challenge:** Ensuring a consistent and responsive design across various devices.
   * **Solution:** Leverage responsive design principles and frameworks like Bootstrap to create a mobile-friendly layout.
3. **Data Handling:**
   * **Challenge:** Managing and retrieving data from Local Storage securely.
   * **Solution:** Implement secure data handling practices, validate user inputs, and use encryption for sensitive information.
4. **Routing and Navigation:**
   * **Challenge:** Handling navigation between different sections of the application.
   * **Solution:** Employ React Router DOM for declarative routing, ensuring a smooth navigation experience.
5. **Testing:**
   * **Challenge:** Ensuring the reliability and functionality of the application.
   * **Solution:** Implement unit testing using tools like Jest and Enzyme to validate the functionality of individual components.

In summary, the Fun Trip project embraces modern web development practices, utilizing React and associated technologies to create a robust, interactive, and visually appealing travel application.

**APP.JS**

import React, { useEffect, useState } from 'react';

import './navBar.css';

import Logo from './tripLogo.jpg';

import { Button, Stack } from '@mui/material';

import { useNavigate } from 'react-router-dom'

function NavBar() {

const history = useNavigate();

const [logindata, setLoginData] = useState([]);

var todayDate = new Date().toISOString().slice(0, 10);

useEffect(() => {

const getuser = localStorage.getItem("user\_login");

if (getuser && getuser.length) {

const user = JSON.parse(getuser);

setLoginData(user);

}

}, [logindata, todayDate])

const userlogout = ()=>{

console.log('I am in userLogout');

localStorage.removeItem("user\_login")

setLoginData([]);

history("/home");

}

return (

<>

<nav className="navbar navbar-expand-sm bg-dark navbar-dark">

<div className="container-fluid">

<a className="navbar-brand" href="/"><div className="header">

<img src={Logo} width="120px" height="60px" alt="Fun Trip logo" />

</div></a>

<button className="navbar-toggler" type="button" data-bs-toggle="collapse" data-bs-target="#collapsibleNavbar">

<span className="navbar-toggler-icon"></span>

</button>

<div className="collapse navbar-collapse" id="collapsibleNavbar">

<ul className="navbar-nav me-auto mb-2 mb-lg-0">

<li className="nav-item">

<a className="nav-link" href="/home">Home</a>

</li>

<li class="nav-item">

<a class="nav-link" href="/book">Book</a>

</li>

<li class="nav-item dropdown">

<a class="nav-link dropdown-toggle" href="/#" role="button" data-bs-toggle="dropdown">Packages</a>

<ul class="dropdown-menu">

<li><a class="dropdown-item" href="/#">United State</a></li>

<li><a class="dropdown-item" href="/#">India</a></li>

<li><a class="dropdown-item" href="/#">France</a></li>

<li><a class="dropdown-item" href="/#">Germany</a></li>

</ul>

</li>

<li class="nav-item">

<a class="nav-link" href="/services">Services</a>

</li>

<li class="nav-item">

<a class="nav-link" href="/gallery">Gallery</a>

</li>

<li class="nav-item">

<a class="nav-link" href="/about">About</a>

</li>

</ul>

<ul>

<div style={{display: 'flex'}}>

<div style={{color: 'white', marginTop: '1rem', marginRight: '1rem'}}>

{logindata && logindata.length ?

<>

<Button style={{color: 'black', backgroundColor: 'white'}} onClick={userlogout}>

Log Out

</Button>

</>

:

<Stack style={{marginTop: '1rem'}} spacing={2} direction="row">

<a class="nav-link" href="/login"><Button style={{color: 'black', backgroundColor: 'white'}} variant="text">Log In</Button></a>

<a class="nav-link" href="/register"><Button style={{color: 'black', backgroundColor: 'white'}} variant="text">Register</Button></a>

</Stack>

}

</div>

</div>

</ul>

<ul class="d-flex flex-row me-2">

</ul>

</div>

</div >

</nav >

</>

);

}

export default NavBar;

**Mainpage.js**

import React from 'react';

import './mainPage.css';

import BookingForm from '../booking-form/BookingForm';

import NavBar from '../nav-bar/NavBar';

function MainPage() {

return (

<>

<NavBar />

<div class="container-fluid mt-3 main-container">

<div class="center">

<div style={{minHeight: '180px'}}>

<h1 style={{color: '#f5f5f0'}}>Welcome To <span style={{color: '#f28b50', fontSize: '50px'}}>Fun Trip</span></h1>

<h1 style={{color: '#f5f5f0'}}>Visit</h1><h1 style={{color: '#dcdc51'}}><span class="change"></span></h1>

</div>

<div>

<button type="button" class="btn btn-secondary btn-lg book-btn">Book now</button>

</div>

</div>

</div>

<BookingForm />

</>

);

}

export default MainPage;

**MainPage.css**

#spin {

color:rgb(41, 36, 36);

}

#spin:after {

content:"";

animation: spin 5s linear infinite;

}

.center {

text-align: center;

margin: auto;

width: 50%;

padding: 70px 0;

}

.main-container{

background-image: url('hallstatt-3609863\_1920.jpg');

background-size: 100%;

height: 90vh;

width: 100%;

}

.book-btn{

width: 160px;

background-color: #53885a;

}

.tripInfo{

display: flex;

flex-direction: row;

}

.change::after{

content:'Vietnam';

animation-name: changetext;

animation-duration: 3s;

animation-iteration-count: infinite;

}

@keyframes changetext {

20%{

content:'Germany';

}

40%{

content: 'Singapore';

}

60% {

content: 'Canada';

}

80%{

content:'Thailand';

}

100% {

content: 'Dubai';

}

}

**Registration Page:**

import React, { useState } from 'react'

import Form from 'react-bootstrap/Form'

import Button from 'react-bootstrap/Button'

import { NavLink } from 'react-router-dom'

import { useNavigate } from 'react-router-dom'

import { ToastContainer, toast } from 'react-toastify';

import 'react-toastify/dist/ReactToastify.css';

import SIgn\_img from './Sign\_img'

import NavBar from '../nav-bar/NavBar'

import Footer from '../Footer/Footer'

const RegistrationForm = () => {

const history = useNavigate();

const [inpval, setInpval] = useState({

name: "",

Mob: "",

email: "",

date: "",

password: ""

})

const [data, setData] = useState([]);

console.log(inpval);

const getdata = (e) => {

console.log(e.target.value);

const { value, name } = e.target;

// console.log(value,name);

setInpval(() => {

return {

...inpval,

[name]: value

}

})

}

const addData = (e) => {

e.preventDefault();

const { name, mobile, gender, email, date, password } = inpval;

if (name === "") {

toast.error(' name field is requred!',{

position: "top-center",

});

} else if (email === "") {

toast.error('email field is requred',{

position: "top-center",

});

} else if (!email.includes("@")) {

toast.error('plz enter valid email addres',{

position: "top-center",

});

} else if (mobile === "") {

toast.error('mobile field is requred',{

position: "top-center",

});

} else if (gender === "") {

toast.error(' gender field is requred!',{

position: "top-center",

});

} else if (date === "") {

toast.error('date field is requred',{

position: "top-center",

});

} else if (password === "") {

toast.error('password field is requred',{

position: "top-center",

});

} else if (password.length < 5) {

toast.error('password length greater five',{

position: "top-center",

});

} else {

console.log("data added succesfully");

history("/login")

localStorage.setItem("useryoutube",JSON.stringify([...data,inpval]));

}

}

return (

<>

<NavBar />

<div className="container mt-3">

<section className='d-flex justify-content-between'>

<div className="left\_data mt-3 p-3" style={{ width: "100%" }}>

<h3 className='text-center col-lg-6'>Sign Up</h3>

<Form >

<Form.Group className="mb-3 col-lg-6" controlId="formBasicEmail">

<Form.Control type="text" name='name' onChange={getdata} placeholder="Enter Your Name" />

</Form.Group>

<Form.Group className="mb-3 col-lg-6" controlId="formBasicMobileNo">

<Form.Control onChange={getdata} name='mobile' type="number" placeholder="Enter Your Mobile no.." />

</Form.Group>

<Form.Group className="mb-3 col-lg-6" controlId="formBasicEmail">

<Form.Control type="text" name='gender' onChange={getdata} placeholder="Gender.." />

</Form.Group>

<Form.Group className="mb-3 col-lg-6" controlId="formBasicEmail">

**7. Output**

**Registration Page:**

A screenshot of a computer

Description automatically generated

**Login Page:**

A computer screen shot of a person sitting at a desk

Description automatically generated

**Home Page:**

A screenshot of a website

Description automatically generated

A screenshot of a website

Description automatically generated

A screenshot of a website

Description automatically generated

**Gallery:**A screenshot of a computer

Description automatically generated

**8. Validation**

1. HTML Validation:

Method:-

Using the W3C Markup Validation Service, the HTML code is checked against the official HTML specifications.

Benefits:-

Ensures the HTML code adheres to standard conventions.Identifies and fixes syntax errors, improving compatibility across browsers.

1. CSS Validation:

Method:

Leveraging the W3C CSS Validation Service to validate the CSS stylesheets.

Benefits:

Verifies CSS syntax and structure.Helps maintain consistency and corrects potential styling issues.

1. JavaScript validation:

Method:

Employing JavaScript linting tools like ESLint to analyze and identify potential issues in the code.

Benefits:

Enforces coding standards and best practices.Flags potential errors, improving code quality and readability.

1. Form Validation:

Method:

Implementing client-side form validation using JavaScript.Utilizing HTML5 form attributes like required and pattern.

Benefits:

Enhances user experience by providing instant feedback on form inputs.Reduces the likelihood of submitting incorrect or incomplete data.

**9. Conclusion**

* The travel agency frontend development project has successfully delivered an engaging and functional platform for travel enthusiasts.
* User-Friendly Design: Every click is a step in a user-centric journey. From hassle-free registrations to captivating galleries, the design puts the user experience at the forefront.
* Validation Made Easy: We've mastered the art of ensuring data integrity. Our use of JavaScript and HTML5 validation keeps things secure and user-friendly.
* Innovative Touches: Dynamic cards and an immersive gallery add a spark of innovation. It's not just a travel site; it's a digital adventure.

**Future improvements**: -

* Adding social features: Enable users to share their travel plans, photos, and experiences on social media directly from the platform.
* Payment gateway: We can add a payment gateway for our users to directly book from our site.
* Adding more destination: In future we can add even more destination places for our site and make a fully dynamic websites with the help of frame works like React.js,angular,vue etc.
* Continuous SEO Optimization: Regularly optimize content for search engines to improve visibility and attract organic traffic.

**References**

[**https://react.dev/**](https://react.dev/)

[**https://www.pexels.com/**](https://www.pexels.com/)

[**https://react-bootstrap.netlify.app/**](https://react-bootstrap.netlify.app/)

[**https://reactrouter.com/en/main**](https://reactrouter.com/en/main)

[**https://www.w3schools.com/**](https://www.w3schools.com/)