Project Report on

InfyTech – A Complete Tech Store

at

Webcreta Technologies



25 Years excellence in innovative technical education in shaping engineers

External Guide:

Mr. Anurag Vaishnav

Internal Guide :

Prof. Dhiren Prajapati

Prepared By:

Mr. Kaushal Vibhakar (19012011091)

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Submitted to,
Department of Computer Engineering
U.V. Patel College of Engineering
Ganpat University, Kherva - 384 012

U.V. PATEL COLLEGE OF ENGINEERING



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13/05/23

CERTIFICATE

TO WHOM SO EVER IT MAY CONCERN

This is to certify that Mr. Kaushal Vibhakar student of B.Tech. Semester VIII (Computer Engineering) has completed his full semester on site project work titled "InfyTech" satisfactorily in partial fulfillment of the requirement of Bachelor of Technology degree of Computer Engineering of Ganpat University, Kherva, Mehsana in the year 2022-2023.

Prof. Dhiren Prajapati, College Project Guide. Dr. Paresh M. Solanki, HOD, Computer Engineering.



Internship Completion Letter

Date - 03/05/2023

This is to certify that **Mr. Kaushal Vibhakar**, student of Ganpat University, has successfully completed his 4-Months training as **"React.js Developer"** commencing from January 02 2023 to May 02 2023, under the guidance of Mr. Anurag Vaishnav at Webcreta Technologies Pvt Ltd.

His Internship activates includes

- Web Development
- API Development
- Review of Project Requirements
- An Ecommerce Website Project

During the training period with us, he was exposed to various processes and was found diligent and inquisitive.

We wish him every success in his life and career



WEBCRETA TECHNOLOGIES

1506, Rudram Icon, near Silver Oak Engineering Collage, opp. LAMBDA HOUSE, Gota, Ahmedabad, Gujarat 382481

Tel +91 9825041187 | info@webcreta.com | www.webcreta.com

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It is my pleasure to be indebted to various people, who directly or indirectly contributed to this world's development and influenced our thinking, behavior and acts during the course of study.

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I express my thanks to all the teaching faculty of the Department of Computer Engineering, whose suggestions during reviews helped me in the accomplishment of our project.

I would like to thank my parents, friends, and classmates for their encouragement throughout our project period.

- Kaushal Vibhakar [19012011091]

ABSTRACT

Business in any field has a lot of competition. They always look out for a proven way to increase their business revenue. Restaurants, Retails Shops and many businesses want to increase their sales and since the world is going online in every aspect of life, if this kind of business doesn't have an e-commerce website, they are leaving money on the table. The world has moved online - a fact that all businesses have to accept and put up a responsive website to address. Amazon and Flipkart are prime examples of websites with all the key elements making up a good e-commerce site. Almost all websites were initially put together with HTML, CSS and JavaScript. But as time progressed and different frameworks came into the picture, the website got a makeover. Through this project we'll discover a way to build a functional e-commerce website, relying on React and its libraries.

My project is "InfyTech – A Complete Tech Store" which is a React Ecommerce Website. This website will be useful for everyone to find and buy all types of computer products on the Internet. It is useful in a way that it makes it an easier way to buy products online. This project is an interactive e-commerce solution providing users with an opportunity to buy their desired products easily. In this project, users can log in/signup and buy the products from the website and can find various types of deals and offer on the available products. The UI is created in such a way that any user can find it easy to access this website.

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1. Introduction

1.1 Project Introduction:

Online shopping or e-commerce is to buy products or services directly from the seller through the Internet. It is in trend as more people than before are using e-commerce to shop for a variety of items and daily needs. With this project, we will convert the retail business into a digital business. With the help of an e-commerce website, the shop is available for customers anytime. Customers don't need to go outside to purchase or inquire about the product. Every possible product is available on the website.

Nowadays people have multiple options to choose their platform to buy and sell the products. Consumer attitudes towards online shopping are usually determined by two factors: one is trust and another is benefits. Therefore, trust and benefits seem to be the critical presumption of consumer behavior towards e-commerce platforms. Moreover, information quality, website design, transaction capability, payment, security/privacy, fast delivery, and customer service are strongly predictive of online shopping satisfaction. The e-commerce store which utilizes value-added mechanisms in the search engine and provides customers with a good experience may increase customers' shopping enjoyment.

1.2 Objective:

The central concept of the application is to allow customers to shop virtually using the Internet and allow customers to buy the items and articles they desire from the store. On our website, every type of product is available like electronics items. The website is designed into two modules: one in which customers can search and buy products and the other module is for admin where he can perform CRUD operations. The end user of this product is a departmental store where the application is hosted on the web and the administrator maintains the products.

The following are the steps used for designing the website:

- The first task, once we get the development environment ready, will be to set up the React Router.
- Once we have everything in place, we can start with creating the website header which will serve as the navigation bar, as in most modern websites. Next up is the home page building. In this project, we'll be keeping it simple by showing all our product categories on the homepage.
- Then we'll be setting up the React Context API. The Context API is a component structure provided by the React framework, which enables us to share specific

states across all levels of the application. In our project, we'll need to manage two states: basket (to manage the shopping cart) and user (for managing the details of the currently logged user).

- For setting up the payments functionality, we'll be using APIs provided by Stripe. Handling our database and authentication needs to be supported and we'll be using Firebase for the same.
- We will use separate databases for storing login and product information.
- Once we have everything set up, we can work on the Login page of our application.
- Successful implementation of the above requirements will lead to the completion of the core implementation of our e-commerce solution. Next up, deploy!

1.3 Basic Workflow:

Register > Login > Home Page > Products > Cart > Checkout > Logout

1.4 Benefits:

This application will have no ads and no subscription requirements and so it's completely free to use.

1.5 Project Duration:

16 Weeks.

2. Feasibility Study

2.1 Study of the Current System:

Many sites are available on the internet for online shopping. There are some more popular than others. Amazon and Flipkart are prime examples. They provide various functionalities like viewing all products, adding or removing product/s in the cart, managing personal profiles, ordering product/s, cancelling the order, making online payments, giving an option of offline payment, managing various delivery addresses, tracking the product, returning or replace the product, customer care supports, product feedbacks, and many other features. They use courier services to deliver the products. Multiple vendors are available on those sites. So we also call them multi-vendor sites. Also, they give facilities for the vendors to register on the site to sell their products.

2.2 Requirements for a New System:

- All the existing systems are non-responsive and full of ads.
- Most of the current systems are bloated with unnecessary features which confuse new customers and lead to a bad user experience.
- We might not be able to visit the vendor's physical location to resolve our issue/s.
- When we apply for the replacement of products, it will take a long time. It takes around 7 to 10 days.
- Only customers who have premium accounts can fast-order deliveries.

Whenever a new system (hardware or software) is to be introduced, there is a need to study the new system in every aspect or manner before working on it. It gives the idea of whether the project is adequate or not. This is where the Feasibility study comes in. The three key considerations that are involved in the feasibility analysis are as under:

2.3 Technical Feasibility:

It refers to technical know-how.

Existing technology supports the system completely. Hence our system is technically feasible.

2.4 Operational Feasibility:

It means that it's possible to practically implement the project. While installing this software, the hardware and software requirements should be specified.

Our system will be easy to install and use. Hence our system is operationally feasible.

2.5 Economical Feasibility:

It refers to the financial support required. Meaning, finance incurred during the development of the project.

Economical Feasibility is mainly concerned with the cost incurred in the implementation of the software. Since this project is developed using React with JavaScript and Firebase Server which is most commonly available and even the cost involved in the installation process is not high. Hence this project has good economical feasibility.

2.6 Hardware and Software Requirements:

Hardware Requirements:

• Processor : Intel Pentium 4 or More

• RAM: 1 GB or More

- Internet Connectivity is a must for this purpose.
- Basic Peripherals

Software Requirements:

- HTML, CSS and JavaScript
- React.js and Strapi
- SOLite.
- Firebase Database Servers
- Microsoft Visual Studio 2008

3. System Requirements Study

3.1 Functional Requirements:

These are the requirements that the end user specifically demands as basic facilities that the system should offer. All these functionalities need to be incorporated into the system as a part of the contract. These are represented or stated in the form of input to be given to the system, the operation performed and the output expected. They are the requirements stated by the user which one can see directly in the final product, unlike the non-functional requirements.

Examples: Register & Login.

- : Verification Email is sent when the user registers for the first time.
- : OTP is sent when the user registers with a mobile number.
- : Login via Google Account.

3.2 Non-functional Requirements:

These are the quality constraints that the system must satisfy according to the project contract. The priority or extent to which these factors are implemented varies from one project to another. They are also called non-behavioral requirements.

They deal with issues like: Portability

: Security

: Maintainability

: Reliability

: Scalability

: Performance

: Reusability

Examples : Each user must use different Emails.

: Password should contain Alphabets as well as Numbers.

4. Project Planning

4.1 Gantt Chart:



Figure 4.1 – Gantt Chart

4.2 Flowchart:

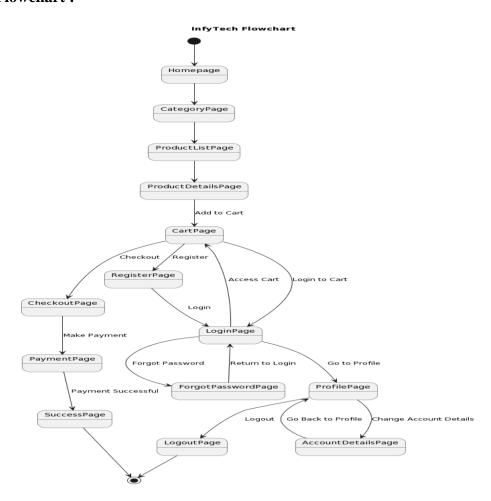


Figure 4.2 – Flowchart

5. System Design

5.1 Use Case Diagram:

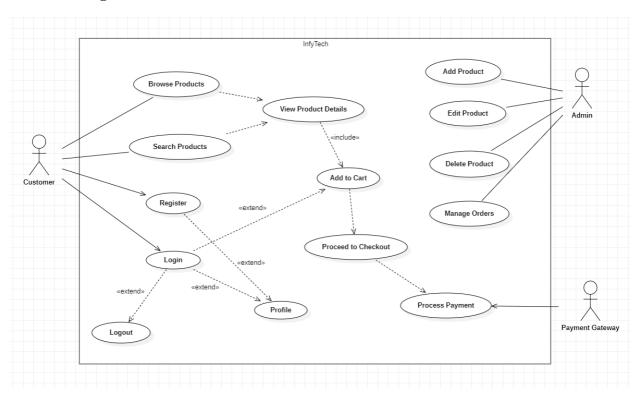


Figure 5.1 – Use Case Diagram

5.2 Class Diagram:

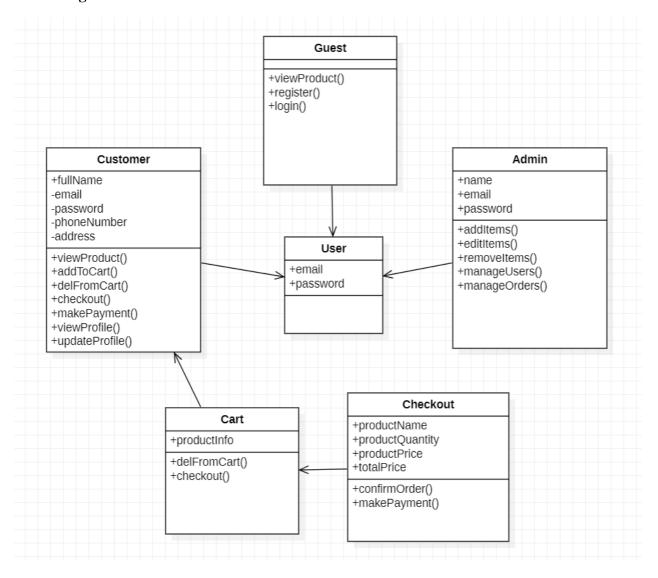


Figure 5.2 – Class Diagram

5.3 Sequence Diagram:

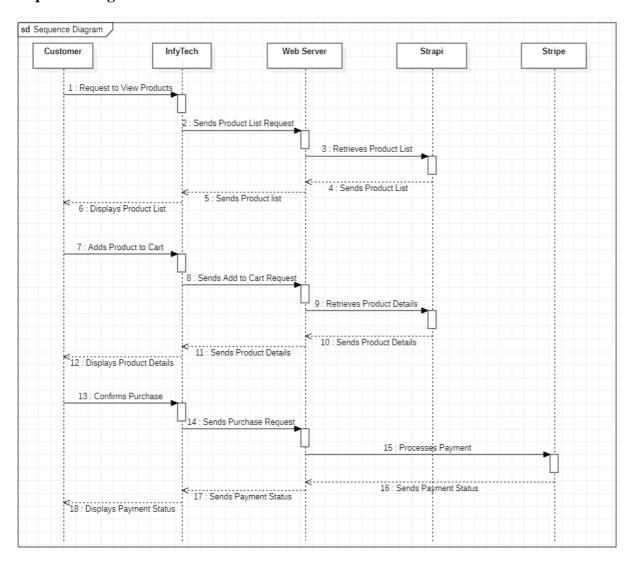
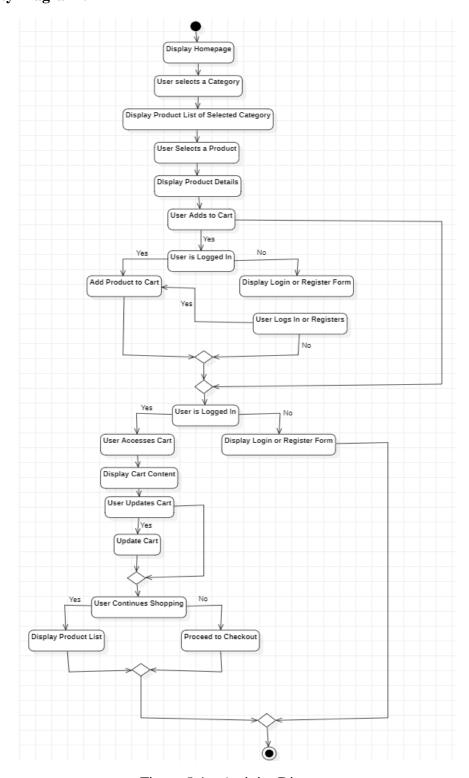


Figure 5.3 – Sequence Diagram

5.4 Activity Diagram:



Figure~5.4-Activity~Diagram

5.5 Data Flow Diagrams:

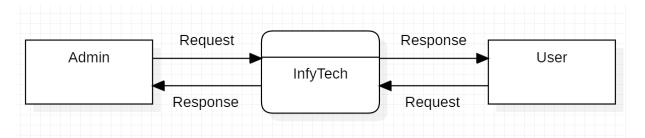


Figure 5.5 – Zero Level DFD

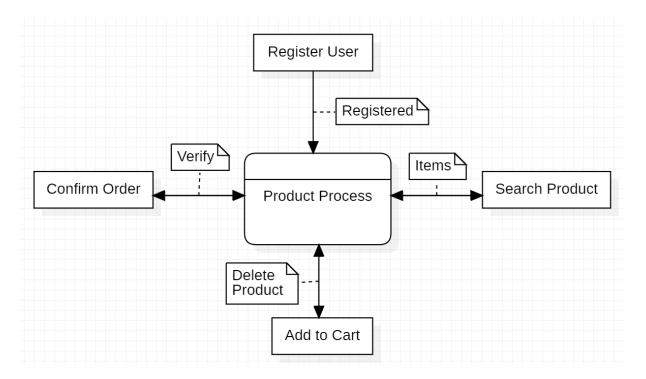


Figure 5.6 – First Level DFD

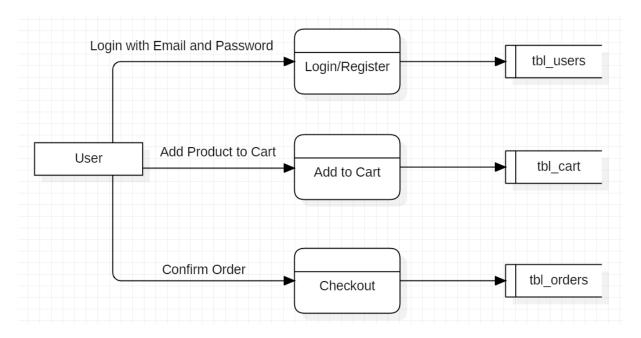


Figure 5.7 – Second Level DFD

6. Data Dictionary

6.1 Category Data Table:

Field Name	Data Type	Constraint	Description
Name	Varchar	Not Null	Category's Title
filterType	Varchar	Not Null	Type of Filters in the Category

Table 6.1 – Category Data Table

6.2 Product Data Table :

Field Name	Data Type	Constraint	Description
Name	Varchar	Not Null	Product's Name
Company	Varchar	Not Null	Product's Company Name
Price	Number	Not Null	Product's Price Value
Desc	Varchar	Not Null	Description of the Product
Img1	Media	Not Null	First Image of the Product
Img2	Media	None	Second Image of the Product

Table 6.2 – Product Data Table

6.3 Customer Data Table :

Field Name	Data Type	Constraint	Description
Fname	Varchar	Not Null	Customer's First Name
Lname	Varchar	Not Null	Customer's Last Name
Email	Varchar	Not Null	Email for Login Procedure
Pass	Varchar	Not Null > 6	Password for Login Procedure
Phone	Number	Not Null	Phone Number for Shipping and Billing Details
AddL1	Varchar	Not Null	Address Line 1 for Shipping and Billing Details
AddL2	Varchar	None	Address Line 2 for Shipping and Billing Details
City	Varchar	Not Null	City Name for Shipping and Billing Details
State	Varchar	Not Null	State Name for Shipping and Billing Details
Pincode	Number	Not Null <= 6	Pincode Number for Shipping and Billing Details

Table 6.3 – Customer Data Table

6.4 Order Data Table:

Field Name	Data Type	Constraint	Description
Stripe Id	Varchar	Not Null	Stripe Id of the Placed Order
Products	JSON	Not Null	Details of the Ordered Products

Table 6.4 – Order Data Table

7. Prototype

UI Design in Figma :

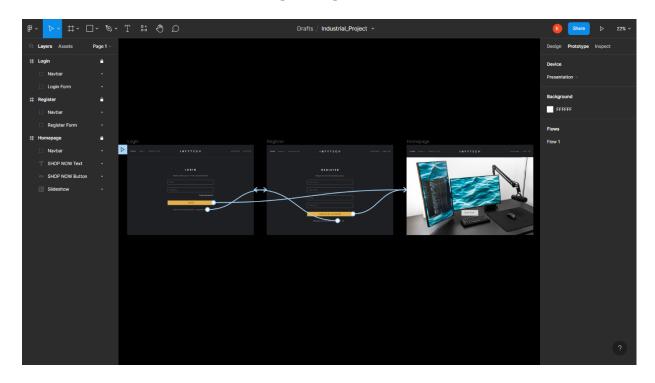


Figure 7.0 – UI Design in Figma

8. Implementation

Folder Structure:

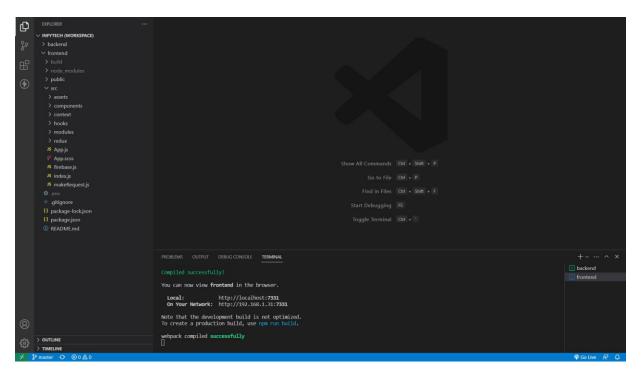


Figure 8.0 – Folder Structure

8.1 Coding:

index.js:

App.js:

```
import React from "react";
import { BrowserRouter as Router, Routes, Route } from "react-router-
dom";
import ScrollToTop from "./components/ScrollToTop";
import { AuthContextProvider } from "./context/AuthContext";
import ProtectedRoute from "./components/ProtectedRoute";
import AnotherProtectedRoute from "./components/AnotherProtectedRoute";
import Home from "./modules/Home/Home";
import AllProducts from "./modules/Products/AllProducts";
import Products from "./modules/Products/Products";
import ProductDetails from "./modules/ProductDetails/ProductDetails";
import Register from "./modules/Account/Register";
import Login from "./modules/Account/Login";
import ResetPassword from "./modules/Account/ResetPassword";
import Profile from "./modules/Account/Profile";
import About from "./modules/About/About";
import Contact from "./modules/Contact/Contact";
import TermsNConditions from "./modules/Policies/TermsNConditions";
import PrivacyPolicy from "./modules/Policies/PrivacyPolicy";
import ReturnPolicy from "./modules/Policies/ReturnPolicy";
import Error from "./modules/Error/Error";
import "./App.scss";
const App = () => {
 return (
   <Router>
      <ScrollToTop />
      <AuthContextProvider>
```

```
<Routes>
          <Route path="/" element={<Home />} />
          <Route path="/products/all" element={<AllProducts />} />
          <Route path="/products/:id" element={<Products />} />
          <Route path="/product/:id" element={<ProductDetails />} />
          <Route
            path="/register"
            element={
              <AnotherProtectedRoute>
                <Register />
              </AnotherProtectedRoute>
          <Route
            path="/login"
            element={
              <AnotherProtectedRoute>
                <Login />
              </AnotherProtectedRoute>
          < Route
            path="/reset-password"
            element={
              <AnotherProtectedRoute>
                <ResetPassword />
              </AnotherProtectedRoute>
          <Route
            path="/profile"
            element={
              <ProtectedRoute>
                <Profile />
              </ProtectedRoute>
          <Route path="/about-us" element={<About />} />
          <Route path="/contact-us" element={<Contact />} />
          <Route path="/terms-and-conditions"</pre>
element={<TermsNConditions />} />
          <Route path="/privacy-policy" element={<PrivacyPolicy />} />
          <Route path="/return-policy" element={<ReturnPolicy />} />
          <Route path="*" element={<Error />} />
        </Routes>
      </AuthContextProvider>
    </Router>
  );
};
export default App;
```

ProtectedRoute.js:

```
import React from "react";
import { Navigate } from "react-router-dom";
import { UserAuth } from "../context/AuthContext";
const ProtectedRoute = ({ children }) => {
  const { user } = UserAuth();
  if (!user) {
    return <Navigate to="/login" />;
  }
  return children;
};
export default ProtectedRoute;
```

Firebase.js:

```
import { initializeApp } from "firebase/app";
import { getAuth } from "firebase/auth";
import { getFirestore } from "firebase/firestore";
const firebaseConfig = {
    apiKey: process.env.REACT_APP_FIREBASE_API_KEY,
    authDomain: "infytech1337.firebaseapp.com",
    projectId: "infytech1337",
    storageBucket: "infytech1337.appspot.com",
    messagingSenderId: "307116764783",
    appId: "1:307116764783:web:e868592e1d99da4161e79a",
};
const app = initializeApp(firebaseConfig);
export const auth = getAuth(app);
export const db = getFirestore(app);
export default app;
```

AuthContext.js:

```
import { createContext, useContext, useEffect, useState } from "react";
import {
 createUserWithEmailAndPassword,
 signInWithEmailAndPassword,
 signOut,
 sendPasswordResetEmail,
 onAuthStateChanged,
} from "firebase/auth";
import { auth } from "../firebase";
const UserContext = createContext();
export const AuthContextProvider = ({ children }) => {
 const [user, setUser] = useState({});
 const createUser = (email, password) => {
    return createUserWithEmailAndPassword(auth, email, password);
  };
 const signIn = (email, password) => {
```

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```
return signInWithEmailAndPassword(auth, email, password);
  };
  const resetPassword = (email) => {
    return sendPasswordResetEmail(auth, email);
  };
  const logout = () => {
    return signOut(auth);
  };
  useEffect(() => {
    const unsubscribe = onAuthStateChanged(auth, (currentUser) => {
      setUser(currentUser);
    });
    return () => unsubscribe();
  }, []);
  return (
    <UserContext.Provider</pre>
      value={{ user, createUser, signIn, resetPassword, logout }}
      {children}
    </UserContext.Provider>
  );
};
export const UserAuth = () => {
  return useContext(UserContext);
```

useFetchUser.js:

```
import { useEffect, useState } from "react";
import { doc, getDoc } from "firebase/firestore";
import { db } from "../firebase";
const useFetchUser = (uid) => {
 const [userData, setUserData] = useState(null);
 useEffect(() => {
    const fetchUserData = async () => {
      try {
       if (uid) {
          const docRef = doc(db, "users", uid);
          const docSnap = await getDoc(docRef);
          setUserData(docSnap.data());
      } catch (error) {
        console.log(error.message);
      }
   };
   fetchUserData();
 }, [uid]);
 return userData;
export default useFetchUser;
```

MakeRequest.js:

```
import axios from "axios";
export const makeRequest = axios.create({
  baseURL: process.env.REACT_APP_API_URL,
  headers: {
    Authorization: "bearer " + process.env.REACT_APP_API_TOKEN,
  },
});
```

useFetchData.js:

```
import { useEffect, useState } from "react";
import { makeRequest } from "../makeRequest";
const useFetchData = (url) => {
 const [data, setData] = useState([]);
 const [filterData, setFilterData] = useState([]);
 const [loading, setLoading] = useState(false);
 const [error, setError] = useState(false);
  useEffect(() => {
    const fetchData = async () => {
      try {
        setLoading(true);
        const res = await makeRequest.get(url);
        setData(res.data.data);
        setFilterData(res.data.data);
      } catch (err) {
        setError(true);
      setLoading(false);
    };
   fetchData();
  }, [url]);
  return { data, filterData, loading, error };
export default useFetchData;
```

FilteredProductList.js:

```
import React from "react";
import useFetchData from "../../hooks/useFetchData";
import ProductCard from "../ProductCard/ProductCard";
import { ClipLoader } from "react-spinners";
import "./ProductList.scss";
const FilteredProductList = ({
   categoryId,
   filters,
   maxPrice,
   sort,
   searchQuery,
```

ProductDetails.js:

```
import React, { useState } from "react";
import { NavLink, useNavigate, useParams } from "react-router-dom";
import { useDispatch } from "react-redux";
import useFetchData from "../../hooks/useFetchData";
import { addToCart } from "../../redux/cartReducer";
import Navbar from "../../components/Navbar/Navbar";
import RelatedProductList from
"../../components/ProductList/RelatedProductList";
import Footer from "../../components/Footer/Footer";
import { UserAuth } from "../../context/AuthContext";
import { toast } from "react-toastify";
import "react-toastify/dist/ReactToastify.css";
import "./ProductDetails.scss";
import Cart from "../../components/Cart/Cart";
const ProductDetails = () => {
 const productId = useParams().id;
 const [selectedImg, setSelectedImg] = useState("img1");
 const [quantity, setQuantity] = useState(1);
  const { data, loading, error } = useFetchData(
    `/products/${productId}?populate=*`
  );
 const dispatch = useDispatch();
 const rel = data?.attributes?.categories?.data[0]?.id;
  const navigate = useNavigate();
  const [openCart, setOpenCart] = useState(false);
  const closeCart = () => setOpenCart(false);
  const notifyA = () =>
    toast.success("ADDED TO THE CART!", {
      className: "toastify",
     position: "bottom-right",
      autoClose: 3000,
     hideProgressBar: false,
      closeOnClick: true,
```

```
pauseOnHover: true,
      draggable: true,
      progress: undefined,
      theme: "dark",
      onClick: () => {
        setOpenCart(true);
      },
    });
  const notifyB = () =>
    toast.warning("PLEASE LOGIN TO USE CART!", {
      className: "toastify",
      position: "bottom-right",
      autoClose: 3000,
      hideProgressBar: false,
      closeOnClick: true,
      pauseOnHover: true,
      draggable: true,
      progress: undefined,
      theme: "dark",
      onClick: () => {
        navigate("/login");
      },
    });
  const { user } = UserAuth();
  return (
         {/* Product Details Page's JSX Code. */}
  );
export default ProductDetails;
```

CartReducer.js:

```
import { createSlice } from "@reduxjs/toolkit";
const initialState = {
  products: [],
};
export const cartSlice = createSlice({
 name: "cart",
 initialState,
 reducers: {
    addToCart: (state, action) => {
      const item = state.products.find((item) => item.id ===
action.payload.id);
      if (item) {
        item.quantity += action.payload.quantity;
      } else {
        state.products.push(action.payload);
    },
    removeFromCart: (state, action) => {
```

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```
state.products = state.products.filter(
          (item) => item.id !== action.payload
    );
},
resetCart: (state) => {
    state.products = [];
},
},
});
export const { addToCart, removeFromCart, resetCart } =
cartSlice.actions;
export default cartSlice.reducer;
```

Store.js:

```
import { configureStore } from "@reduxjs/toolkit";
import cartReducer from "./cartReducer";
import {
 persistStore,
 persistReducer,
 FLUSH,
 REHYDRATE,
 PAUSE,
 PERSIST,
 PURGE,
 REGISTER,
} from "redux-persist";
import storage from "redux-persist/lib/storage";
const persistConfig = {
 key: "root",
 version: 1,
 storage,
};
const persistedReducer = persistReducer(persistConfig, cartReducer);
export const store = configureStore({
  reducer: {
    cart: persistedReducer,
  },
 middleware: (getDefaultMiddleware) =>
    getDefaultMiddleware({
      serializableCheck: {
        ignoredActions: [FLUSH, REHYDRATE, PAUSE, PERSIST, PURGE,
REGISTER],
     },
    }),
});
export let persistor = persistStore(store);
```

Cart.js:

```
import React, { useEffect } from "react";
import { useDispatch, useSelector } from "react-redux";
import { removeFromCart } from "../../redux/cartReducer";
import { loadStripe } from "@stripe/stripe-js";
import { makeRequest } from "../../makeRequest";
import "./Cart.scss";
const Cart = ({ closeCart }) => {
 useEffect(() => {
    document.body.style.overflowY = "hidden";
   return () => {
      document.body.style.overflowY = "scroll";
   };
 }, []);
 const products = useSelector((state) => state.cart.products);
 const dispatch = useDispatch();
 const totalPrice = () => {
   let total = 0;
   products.forEach((item) => {
     total += item.quantity * item.price;
    });
   return total.toFixed(2);
 };
 const stripePromise = loadStripe(
    "pk_test_51MoLLYSFvhYDcU3mBTG11C4WewLICocYpuD0sk68BDMmkZEwbuq4zUYSo
g2mW2rqVu37dAOrnWW0NtvMUCNt6tDx00ySYApFd7"
 );
 const handlePayment = async () => {
   try {
     const stripe = await stripePromise;
     const res = await makeRequest.post("/orders", {
        products,
     });
      await stripe.redirectToCheckout({
        sessionId: res.data.stripeSession.id,
     });
   } catch (err) {
     console.log(err.message);
 };
 return (
         {/* Cart Component's JSX Code. */}
  );
};
export default Cart;
```

Order.js:

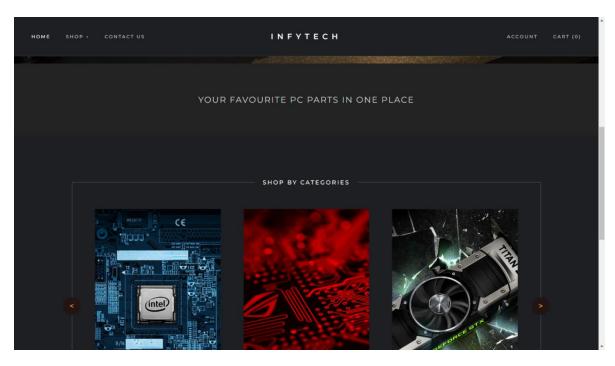
```
("use strict");
const stripe = require("stripe")(process.env.STRIPE_KEY);
const { createCoreController } = require("@strapi/strapi").factories;
module.exports = createCoreController("api::order.order", ({ strapi })
=> ({
 async create(ctx) {
    const { products } = ctx.request.body;
    try {
      const lineItems = await Promise.all(
        products.map(async (product) => {
          const item = await strapi
            .service("api::product.product")
            .findOne(product.id);
          return {
            price_data: {
              currency: "inr",
              product_data: {
                name: item.company + " " + "-" + " + item.name,
              unit_amount: Math.round(item.price * 100),
            quantity: product.quantity,
          };
        })
      );
      const session = await stripe.checkout.sessions.create({
        shipping_address_collection: { allowed_countries: ["IN"] },
        payment_method_types: ["card"],
        mode: "payment",
        success_url: process.env.CLIENT_URL + "?success=true",
        cancel_url: process.env.CLIENT_URL + "?success=false",
        line_items: lineItems,
      });
      await strapi
        .service("api::order.order")
        .create({ data: { products, stripeId: session.id } });
      return { stripeSession: session };
    } catch (error) {
      ctx.response.status = 500;
      return { error };
  },
}));
```

8.2 Screenshots:

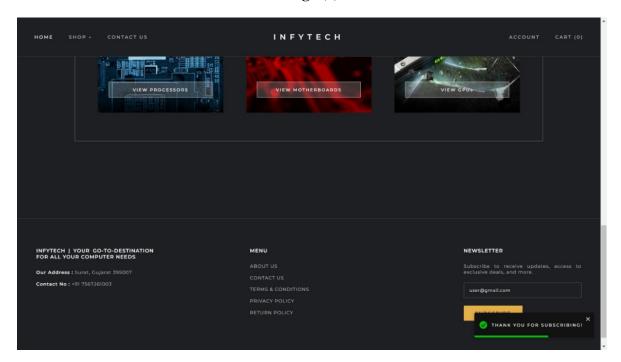
Home Page (1):



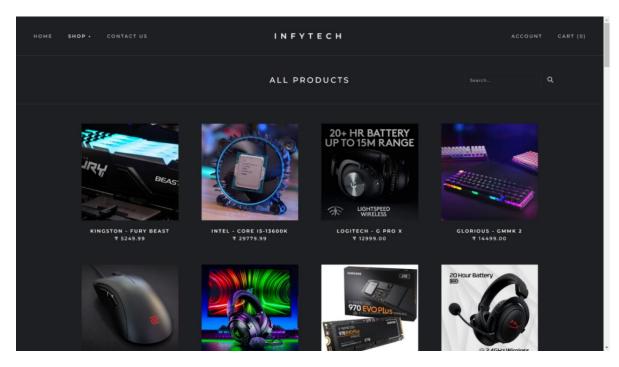
Home Page (2):



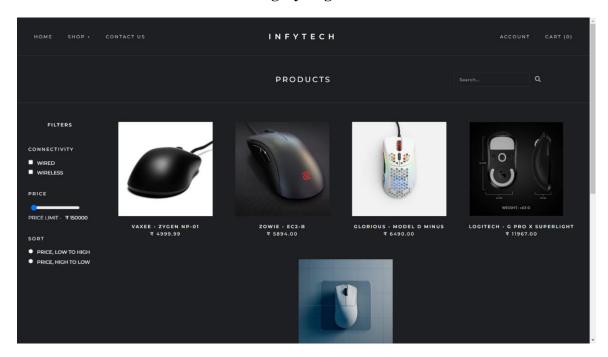
Home Page (3):



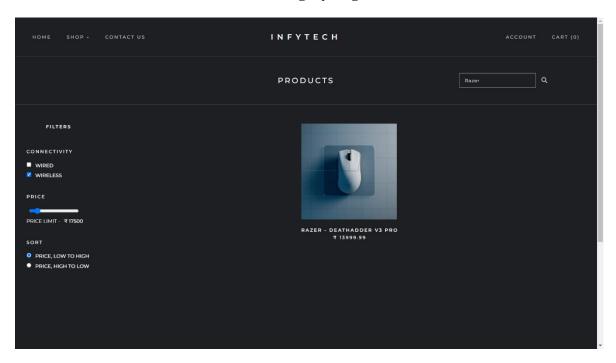
All Products Page:



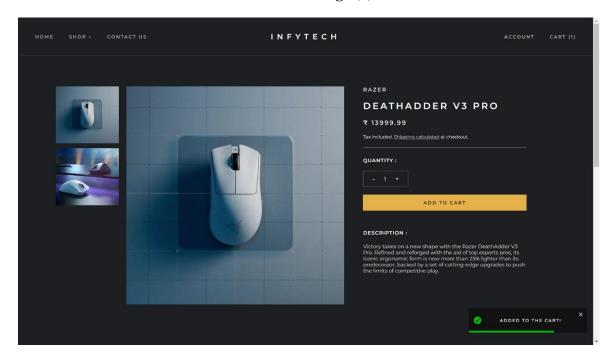
Category Page:



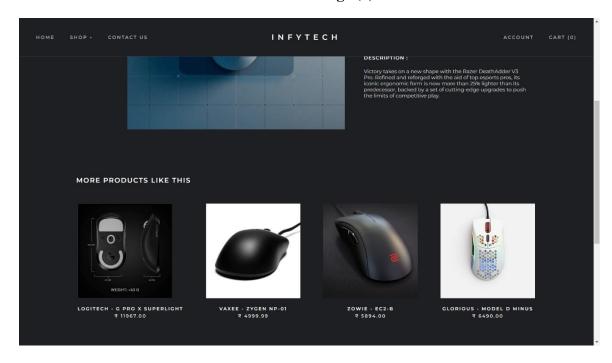
Filtered Category Page:



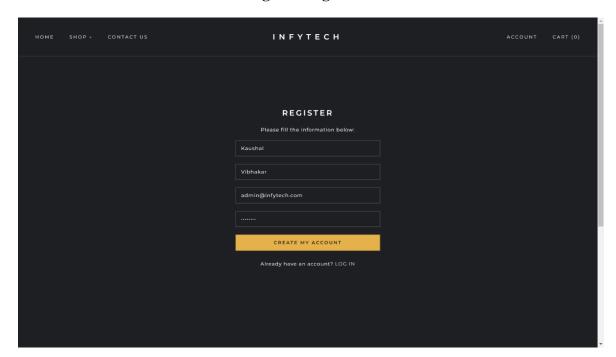
Product Details Page (1):



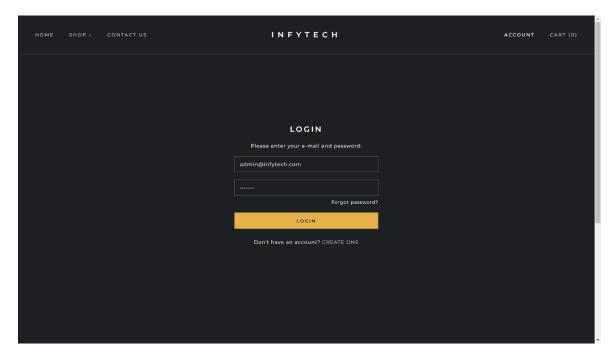
Product Details Page (2):



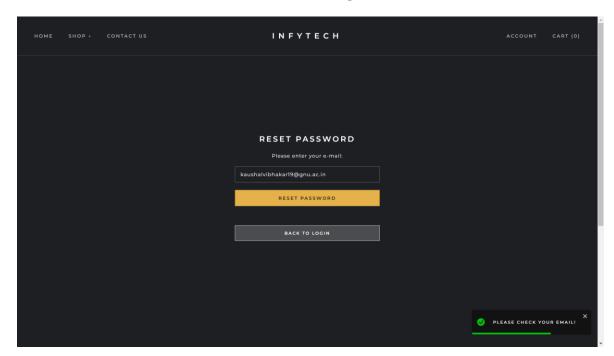
Register Page:



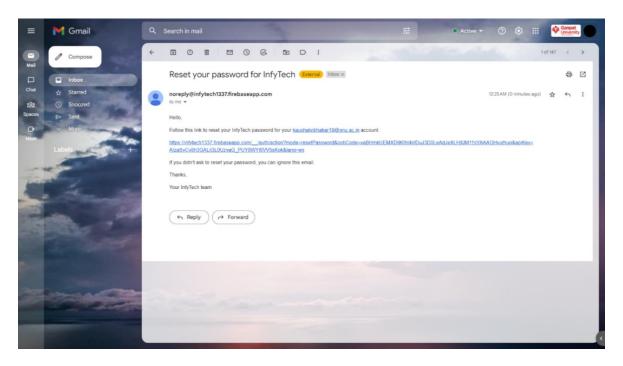
Login Page:



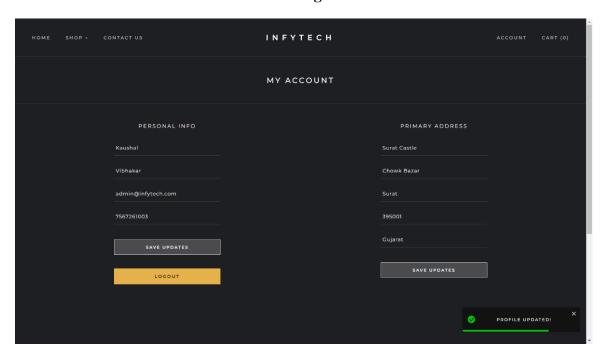
Reset Password Page:



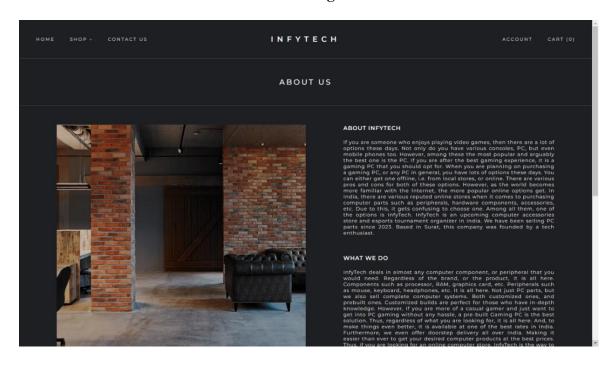
Reset Password Mail:



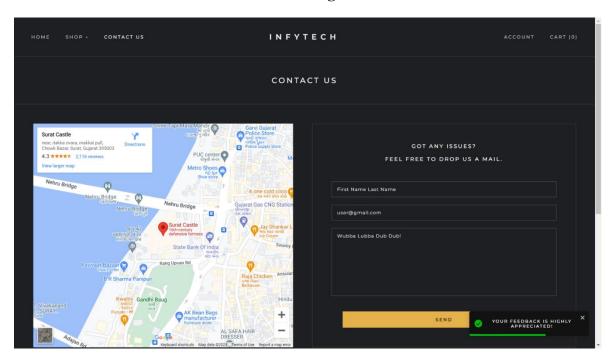
Profile Page:



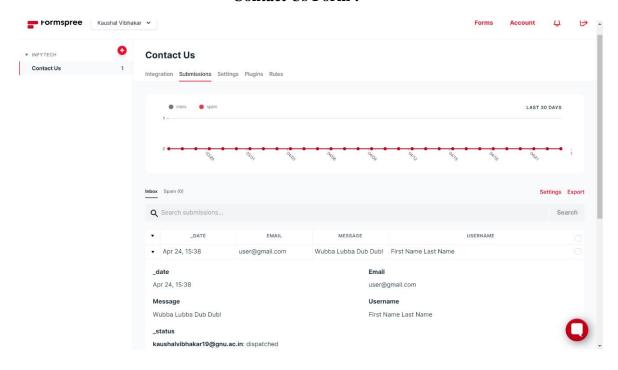
About Us Page:



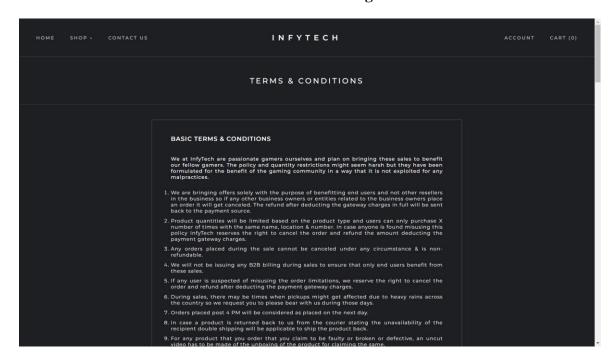
Contact Us Page:



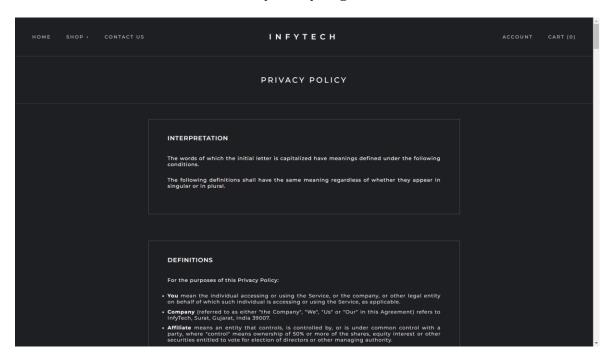
Contact Us Form:



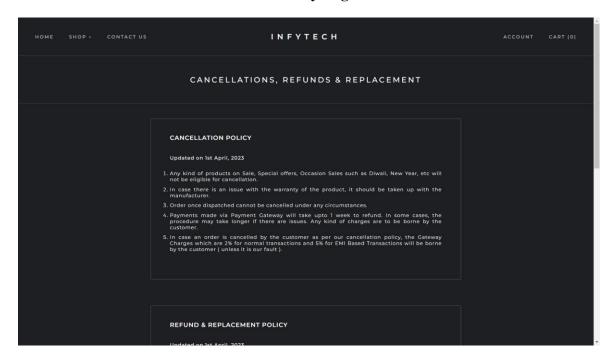
Terms & Conditions Page:



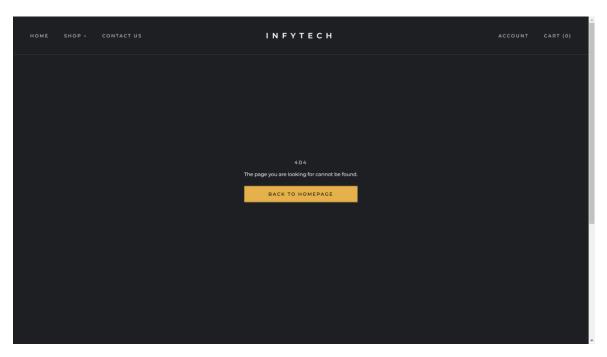
Privacy Policy Page:



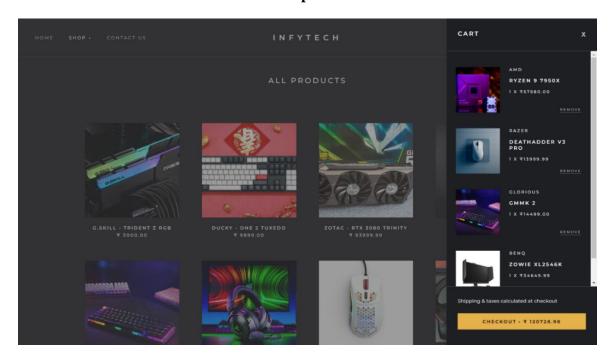
Return Policy Page:



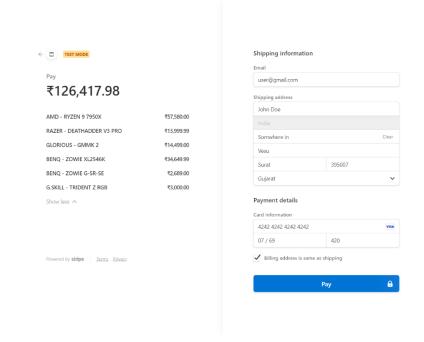
Error Page:



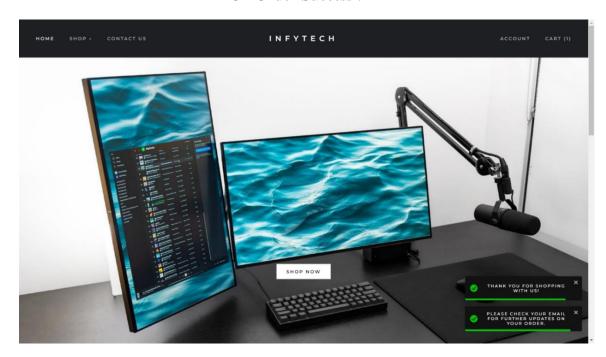
Cart Component:



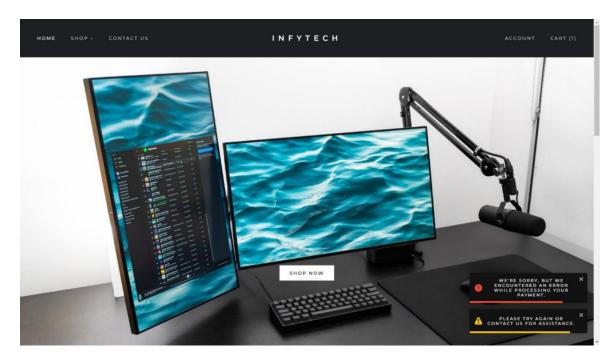
Checkout Page:



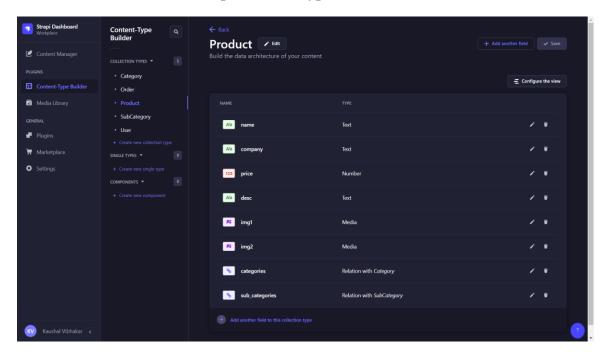
On Order Success:



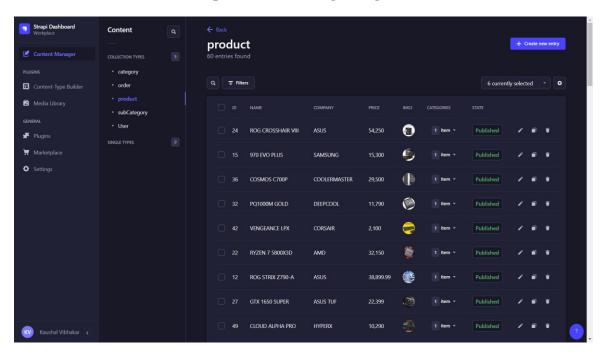
On Order Failure:



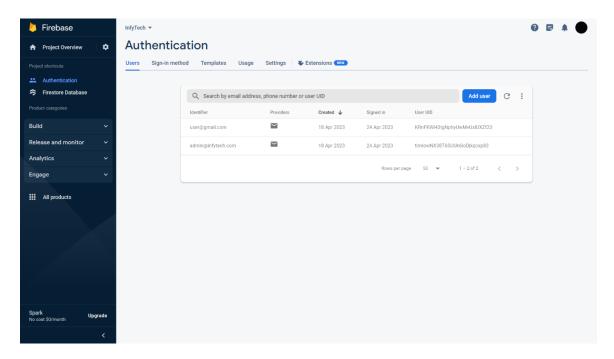
Strapi Content Type Builder:



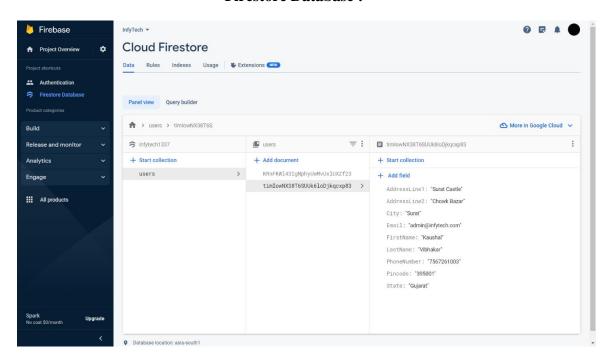
Strapi Content Manager Page:



Firebase Authentication:



Firestore Database:



9. Testing

9.1 Testing Plan:

The objective is to test the functionality of the 'InfyTech' Web Application. Testing is done on both frontend and backend of the application in the Windows environments. The features, which are to be tested, are Login Page, Signup Page and Profile Page. All the major functionality of the application should work as intended and the pass percentage of test cases should be more than 95% and there should not be any critical bugs.

9.2 Test Cases:

The following are the test cases for all modules:

Login Module:

	Test Senario	Test Steps	Test Data	Expected Results	Actual Results	Pass /Fail
	Login with Valid Data	Enter Email Enter Password Click On Login Button	Valid Email Id Valid			Pass
2	Login with Valid Data	Enter Email Enter Password Click On Login Button	Invalid		Incorrect Password	Fail
3	Login with Valid Data	Enter Password			Incorrect Email Id	Fail
4	Login with Valid Data	Enter Password			Incorrect Email Id and Password	Fail

Table 9.2.1 – Login Test Case Table

Signup Module:

Id	Test Senario	Test_Steps	Test_Data	Expected Results	Actual Results	Pass /Fail
1	Valid Data	Enter Password Enter Confirm Password	Filled Email Filled Password Filled Confirm Password	User Should Login into the Application	As Expected	Pass
2	Valid Data	Enter Password Enter Confirm Password Click On Signup Button	Not filled Email Filled Password Filled Confirm Password	User Should Login into the Application	Empty field Email Id	Fail
3	Valid Data	Enter Password Enter Confirm Password	Filled Email Not filled Password Filled Confirm Password	User Should Login into the Application	Empty field Password	Fail
4	Valid Data	Enter Email Enter Password Click On Submit Button	Filled Email Filled Password Not Filled Confirm Password	User Should Login into the Application	Empty field Confirm Password	Fail

 $Table\ 9.2.2-Register\ Test\ Case\ Table$

10. Conclusion & Future Scope

10.1 Conclusion:

In conclusion, our project has successfully achieved its objective of developing a fully functional e-commerce website using React, Strapi, and Stripe. We implemented a product catalog with search and filtering options, a shopping cart, and a user authentication system, all integrated with Stripe for secure payment processing. Additionally, we created an admin dashboard with the help of Strapi for managing products, orders, and customers.

Our website provides a seamless shopping experience for customers, with easy-to-use and visually appealing interfaces. While we did not implement order tracking functionality and responsive design, we believe that our website still provides significant value to our users. We recommend future development of the platform to include these features. Overall, our project has made a valuable contribution to the ecommerce industry, and we hope that it will inspire further innovation and development in this field.

10.2 Future Scope:

- More Products as well as Categories to choose from.
- Add more Filters to help Search for the desired Products.
- Customers can Compare Products.
- Customers can Track their Orders.
- Add more Payment methods.

Annexure

References:

- **React Docs** https://beta.reactjs.org/
- **Redux Docs** https://redux.js.org/introduction/getting-started
- Strapi Docs https://docs.strapi.io/
- **Firebase Docs** https://firebase.google.com/docs
- Stripe Docs https://stripe.com/docs

About Tools and Technology:

Information	Image		
Visual Studio Code – Source Code Editor	Visual Studio Code		
React – Frontend Javascript Library	React JS		
Sass – Preprocessor Scripting Language Interpreted into CSS	Sass		
Strapi – Headless CMS	·¶ strapi		
Stripe – Payment Processing Platform	stripe		
Firebase – Set of Backend Cloud Computing Services	> Firebase		

Table 11.1 – Tools and Technology Table

About College:

U. V. Patel College of Engineering, Ganpat University



25 Years excellence in innovative technical education in shaping engineers

Ganpat University - U. V. Patel College of Engineering (GUNI-UVPCE) is situated in Ganpat Vidyanagar campus. It was established in September 1997 with the aim of providing educational opportunities to students from various strata of society. It was armed with the vision of educating and training young talented students of Gujarat in the field of Engineering and Technology so that they could meet the demands of Industries in Gujarat and across the globe.

The College is named after Shri Ugarchandbhai Varanasibhai Patel, a leading industrialist of Gujarat, for his generous support. It is a self-financed institute approved by All India Council for Technical Education (AICTE), New Delhi and the Commissionerate of Technical Education, Government of Gujarat.

The College is spread over 25 acres of land and is a part of Ganpat Vidyanagar Campus. It has six ultra-modern buildings of architectural splendor, class rooms, tutorial rooms, seminar halls, offices, drawing hall, workshop, library, well equipped departmental laboratories and several computer laboratories with internet connectivity through 1 GBPS Fiber link, satellite link education center with two-way audio and one-way video link.

The Institute offers various undergraduate programs, postgraduate programs, and Ph.D. programs. We aim to create a generation of students that possess technical expertise and are adept at utilizing the technical 'know-hows' in the service of mankind.

We strive towards these Aims and Objectives:

- To offer guidance, motivation, and inspiration to the students for well-rounded development of their personality.
- To impart technical and need-based education by conducting elaborated trainingprograms.
- To shape and mold the personality of the future generation.
- To construct fertile ground for adapting to dire challenges.
- To cultivate the feeling of belongingness amongst the faction of engineers.