# React Project Documentation

## 1. Introduction

This document provides step-by-step instructions for setting up, running, and deploying the React project. It is intended for a DevOps engineer who is not familiar with frontend development.

## 2. Project Overview

This project is built using React with Vite for a fast development experience. It includes features such as product listings, reviews, and search functionality.

## 3. Project Structure

Below is the folder structure of the React project:  
  
📂 Project Root  
 ├── 📂 src (Contains React components, pages, and assets)  
 │ ├── 📂 components (Reusable UI components)  
 │ ├── 📂 pages (Application pages)  
 │ ├── 📂 assets (Static images and files)  
 │ ├── 📜 App.jsx (Main app component)  
 │ ├── 📜 index.js (React entry point)  
 ├── 📂 public (Static assets)  
 ├── 📜 package.json (Project dependencies)  
 ├── 📜 vite.config.js (Vite configuration file)  
 ├── 📜 README.md (Project documentation)

## 4. Installation & Setup

To install and run the project locally, follow these steps:

1. Clone the repository:  
 ```bash  
 git clone <repository-url>  
 ```

2. Navigate to the project directory:  
 ```bash  
 cd project-folder  
 ```

3. Install dependencies:  
 ```bash  
 npm install  
 ```

4. Run the development server:  
 ```bash  
 npm run dev  
 ```

## 5. Deployment Instructions

For production deployment, follow these steps:

1. Build the project:  
 ```bash  
 npm run build  
 ```

2. The build output will be in the `dist/` folder.

3. Use a hosting provider like Vercel, Netlify, or AWS to deploy the build files.

4. If using a server, serve the `dist/` folder using Nginx or Apache.

## 6. Environment Variables

If the project requires environment variables, create a `.env` file and add the necessary keys. For security reasons, sensitive information should not be committed to GitHub.

## 7. GitHub Repository Details

Ensure the repository includes:  
- `.gitignore` file to exclude `node\_modules`  
- A well-documented `README.md`  
- `vite.config.js` for correct deployment settings  
- Deployment guide for DevOps engineers