1. Project Overview and Objectives

- **Project Name:** Business Website
- **Description:** A responsive business website built using **React.js**.
- **Project Goals:**
    1. Showcase company products, services, and portfolio.
    2. Provide a **mobile-friendly, responsive interface**.
    3. Implement **reusable React components** for maintainability.
    4. Include **interactive features** like cart and contact form.
- **Objectives:**
    1. Learn and implement React.js concepts in a real project.
    2. Ensure accessibility and performance optimization.
    3. Organize code for clarity and scalability.
    4. Document all technical aspects for future reference.

2. Setup and Installation Instructions

1. **Clone the repository:**

```
git clone https://github.com/SGauri24/business-website.git
```

2. **Navigate to the project folder:**

```
cd business-website
```

3. **Install dependencies:**

```
npm install
```

4. **Run the project locally:**

```
npm start
```

- Opens at: `http://localhost:3000`

5. **Build the project for production:**

```
npm run build
```

- Compiles the app into the `build/` folder ready for deployment

3. Code Structure Explanation

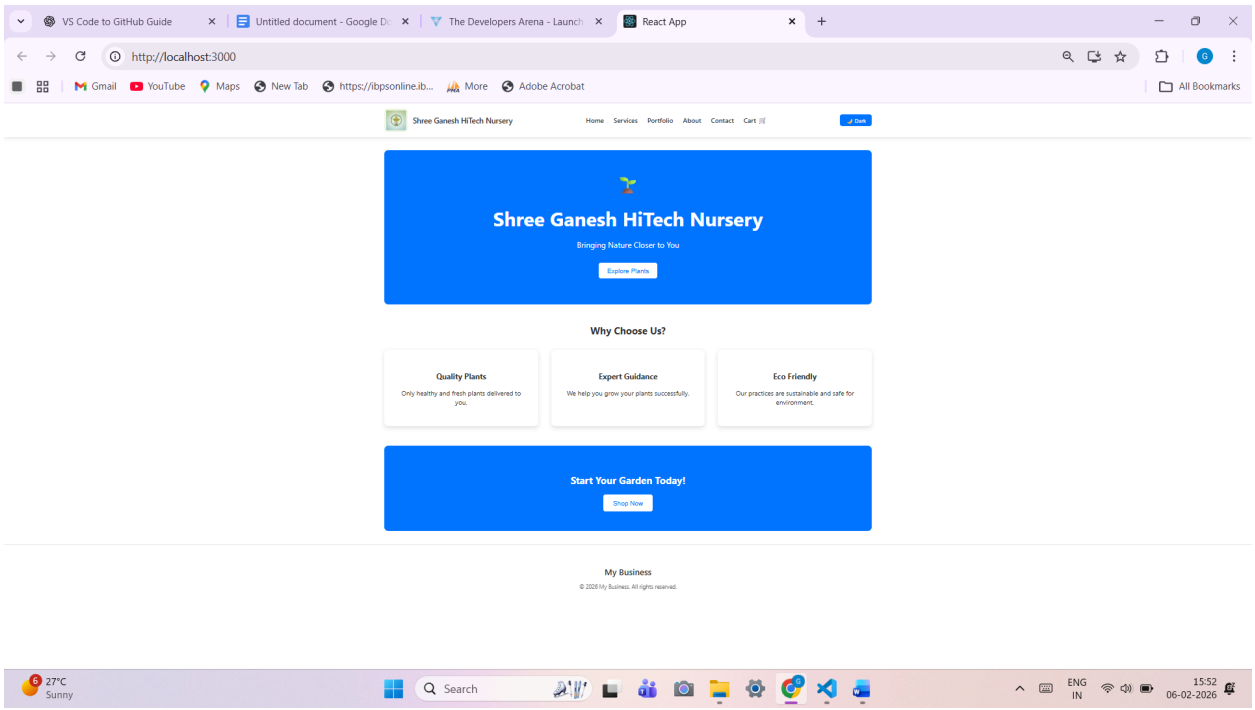
```
business-website/
│
├─ README.md          → Project overview and instructions
├─ .gitignore         → Ignored files (node_modules/, build/)
├─ package.json       → Dependencies and scripts
├─ src/               → React application source code
│   ├─ components/    → Reusable components (Navbar, Footer,
ProductCard)
│   ├─ pages/         → Individual pages (Home, About, Services,
Portfolio, Products, Cart, Contact)
│   ├─ styles/        → CSS (global, responsive, variables,
animations)
│   └─ assets/        → Images, logos, portfolio pictures
├─ public/            → Static assets (index.html, favicon, manifest)
├─ docs/              → Additional documentation (optional)
├─ tests/             → Test files (optional)
```

```
└─ .github/                → GitHub Actions workflows (optional)
```

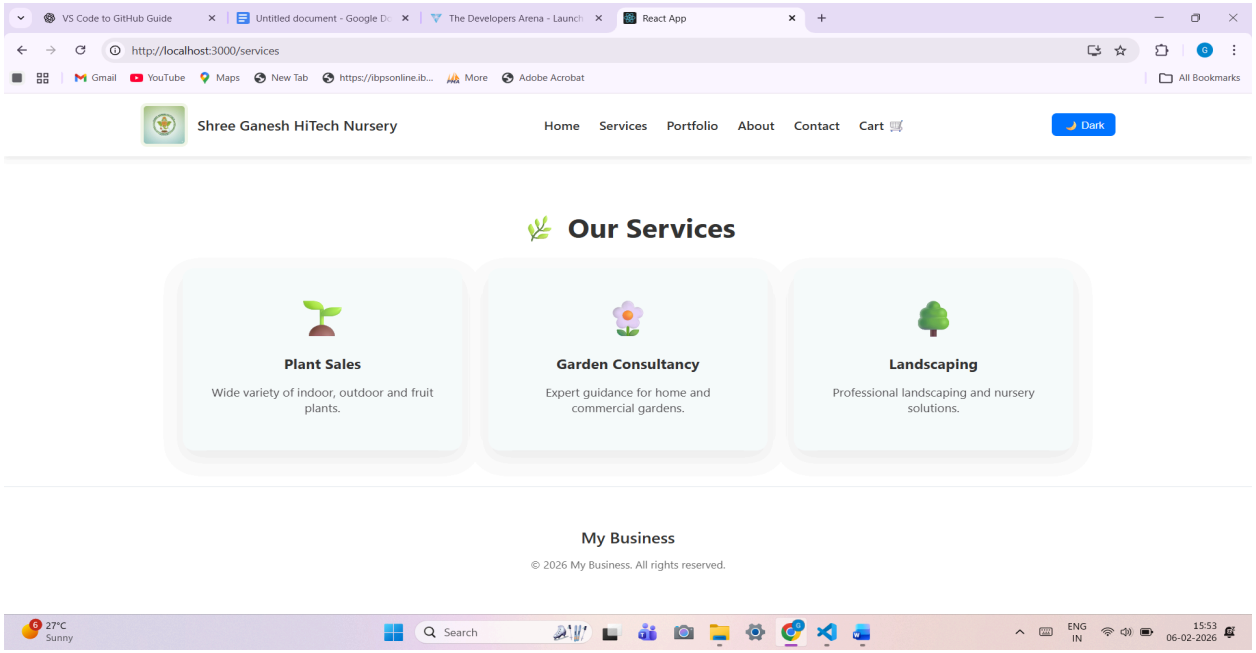
- **Components:** Modular, reusable UI components
- **Pages:** Each route has its own folder
- **Styles:** Organized into global, responsive, and animations for maintainability

4. Visual Documentation (Screenshots)

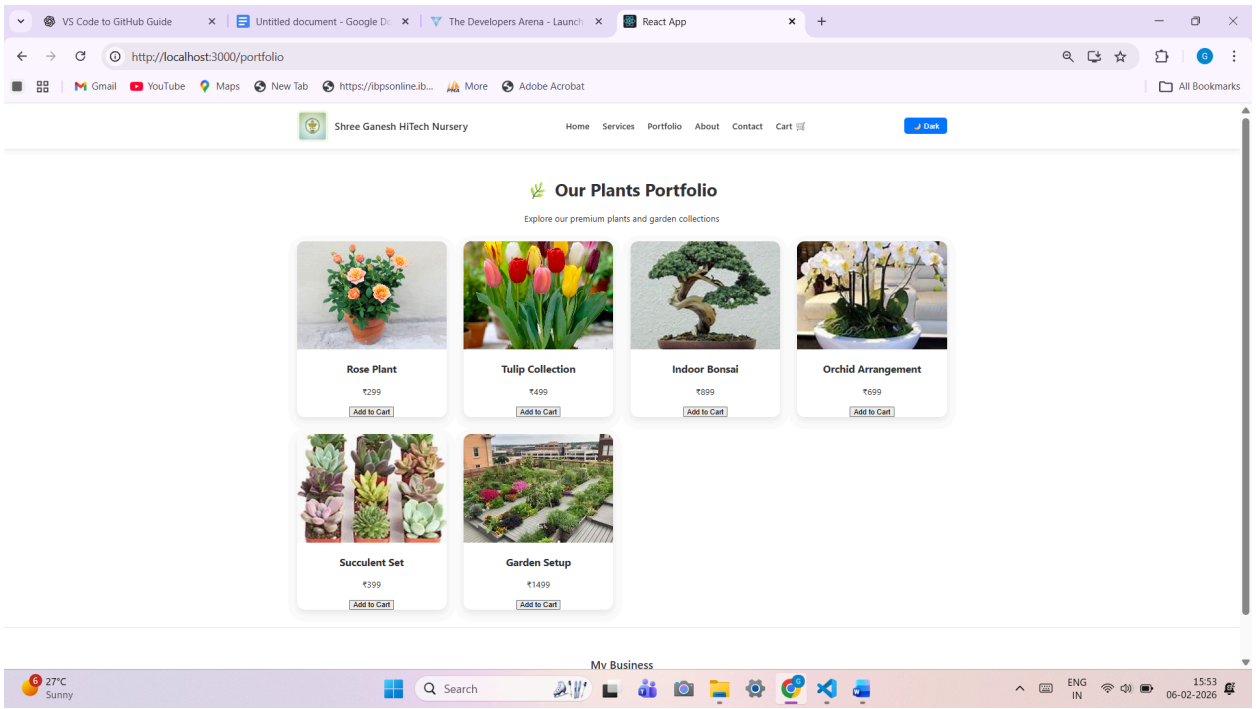
1.Home Page



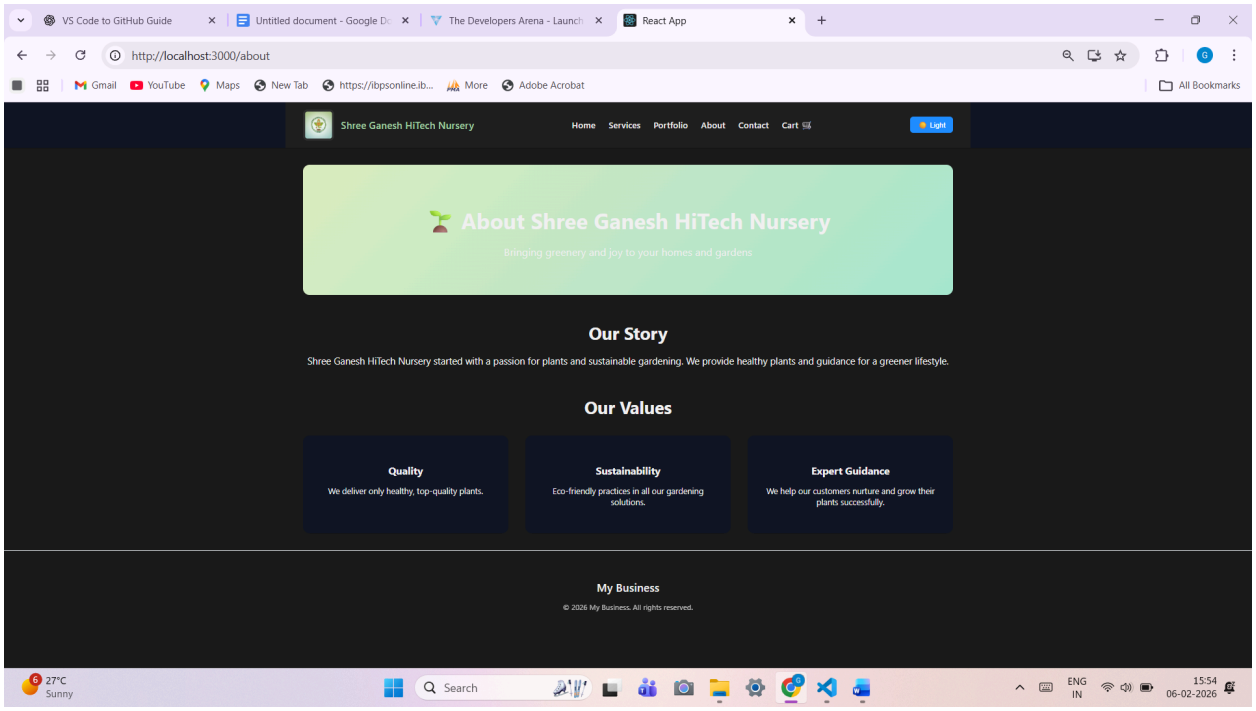
2.Services Page



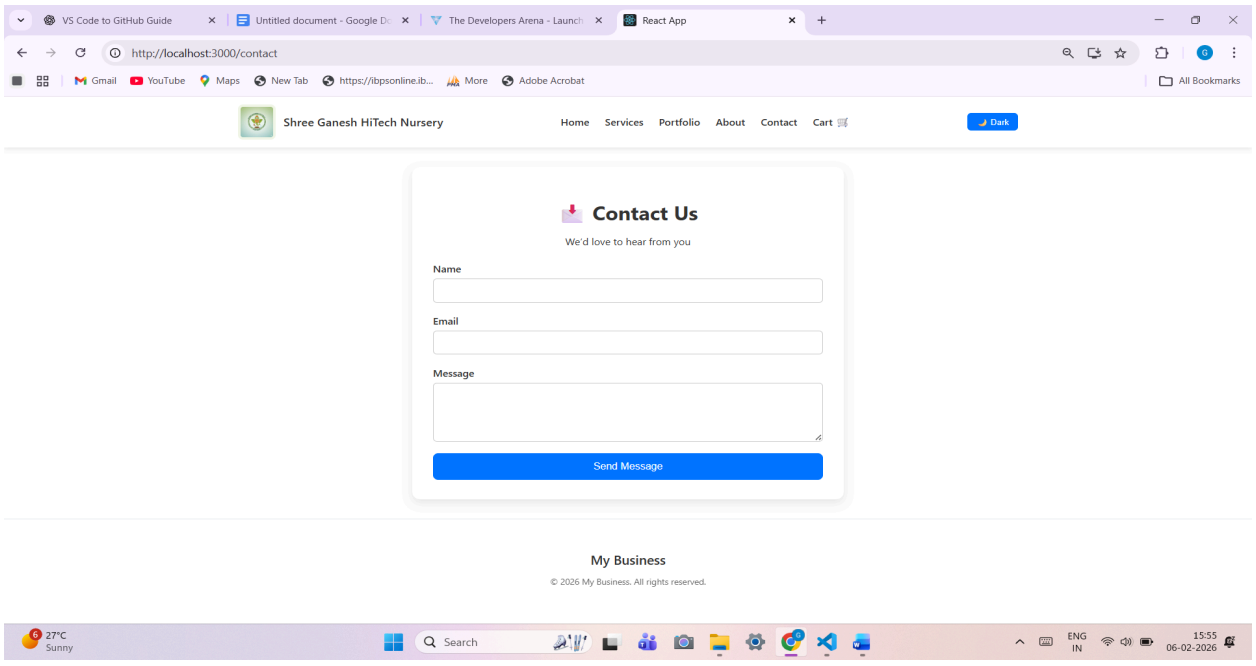
3.Portfolio Page



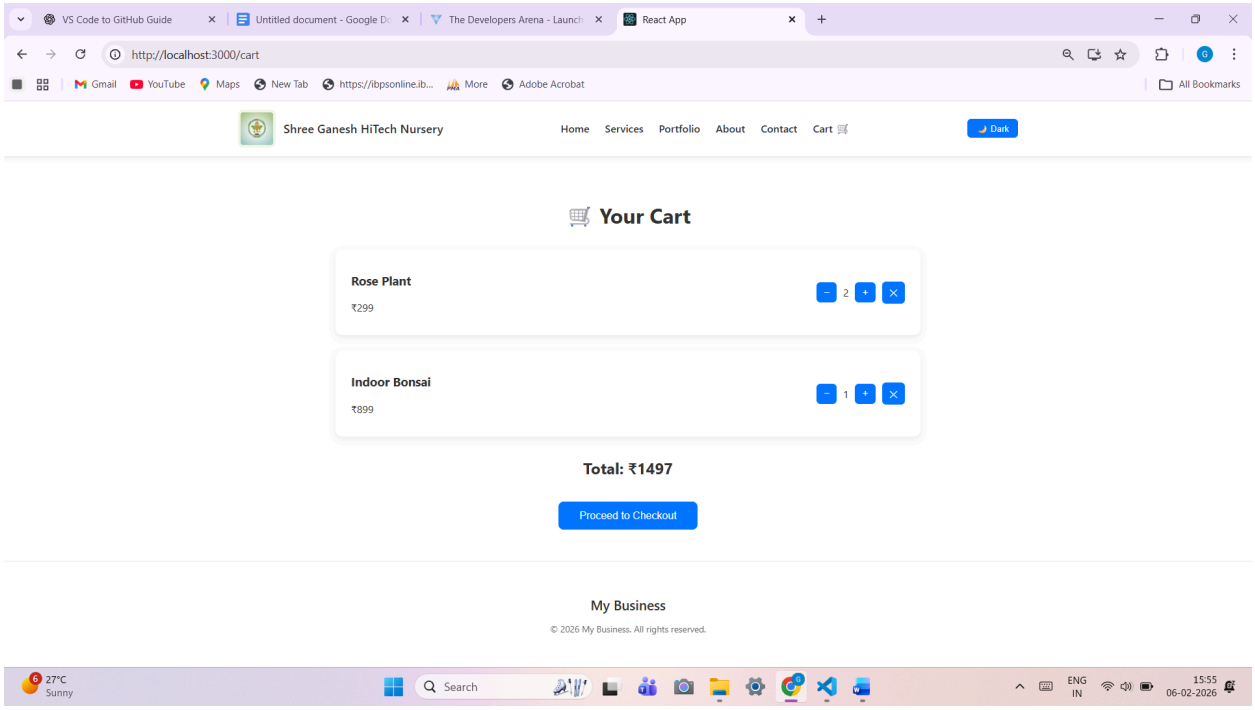
4.About Page



5.Contact Page



6.Cart Page



5. Component Architecture

```
App
├─ Navbar
├─ Footer
├─ Pages
│    ├─ Home
│    ├─ About
│    ├─ Services
│    ├─ Portfolio
│    ├─ Products
│    ├─ Cart
│    └─ Contact
├─ Components
│    └─ ProductCard
```

- Shared components: `Navbar` and `Footer`
- Reusable component: `ProductCard` used in **Products** and **Portfolio** pages.

6. Responsive Strategy

- **Mobile-first design** approach
- **CSS Media Queries** for multiple screen sizes
- **Flexbox** and **CSS Grid** for flexible layouts
- Tested on **desktop, tablet, and mobile**

7. Accessibility Implementation

- Semantic HTML (`<header>`, `<nav>`, `<main>`, `<footer>`)
- **Alt attributes** for all images
- Proper **form labels** for input fields
- **Color contrast** tested for readability
- Focus styles for keyboard navigation

8. Performance Optimization Techniques

- Split code into **reusable components** to reduce re-renders
- Optimized images for faster loading
- Minimized CSS and JS for faster performance
- `.gitignore` prevents unnecessary files from bloating the repo

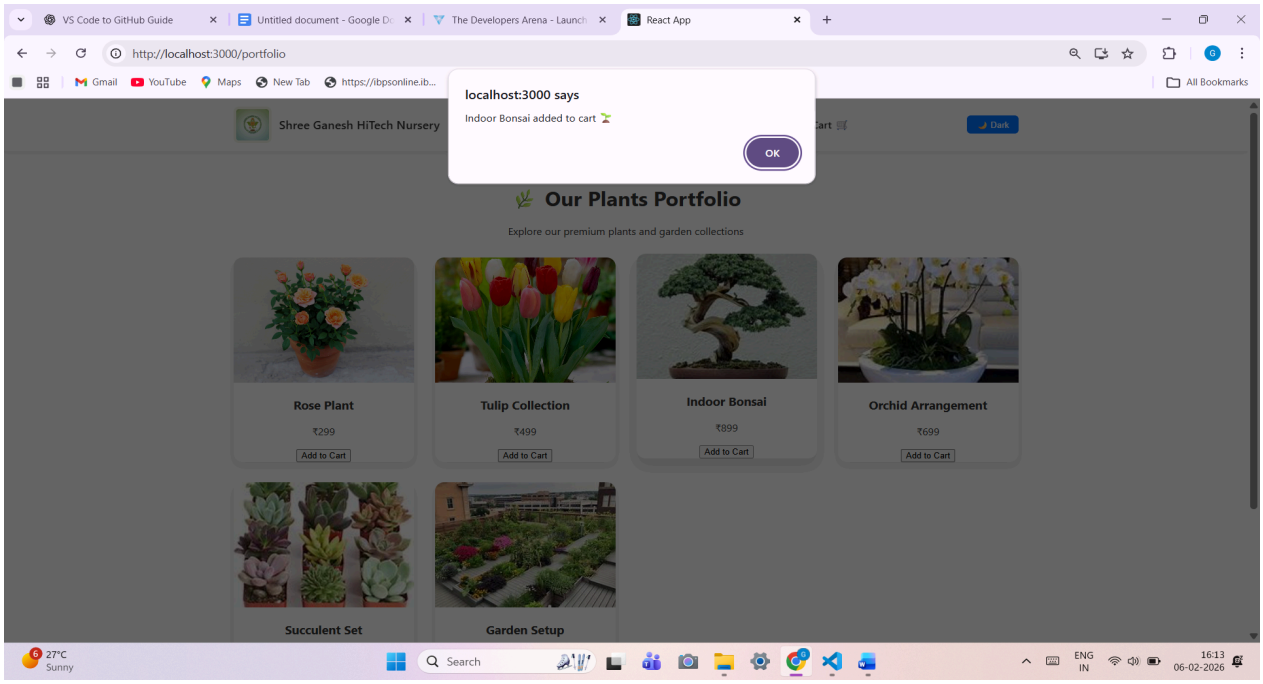
9. Technical Details

- **Algorithms & Data Flow:**

    - Product data flows via **props** into `ProductCard` component
    - State management with **useState** for Cart and other interactive features
- **Architecture:**
    - Functional components for UI
    - CSS modularization for maintainability
    - Component hierarchy ensures clear parent-child data flow

10. Testing Evidence

Feature	Test Case	Expected Result
Navbar Links	Click each link in navbar	Navigate to correct page
ProductCard	Render multiple products	All products/cards displayed correctly
Cart	Add product to cart	Product appears in Cart page
Contact Form	Submit empty form	Validation error messages displayed
Contact Form	Submit valid form	Form submits successfully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Dark
Our Plants Portfolio
Explore our premium plants and garden collections
Rose Plant
₹299
Add to Cart
Tulip Collection
₹499
Add to Cart
Indoor Bonsai
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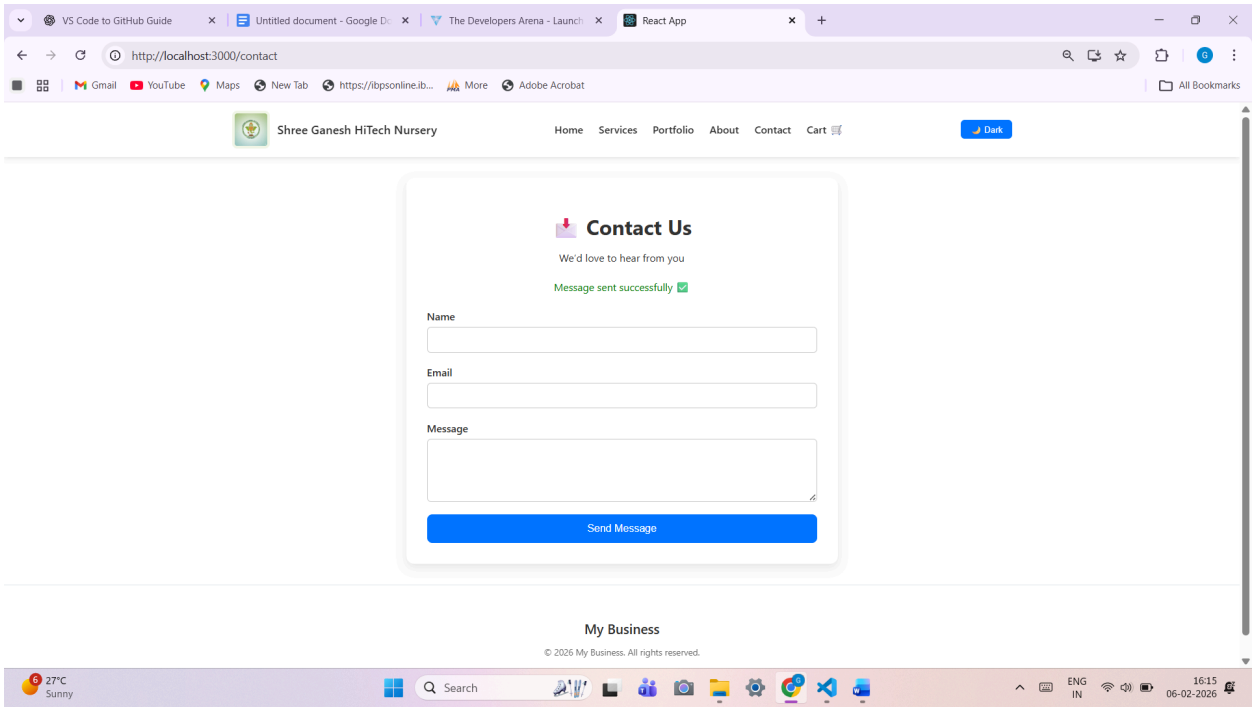
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Contact Us
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© 2026 My Business. All rights reserved.
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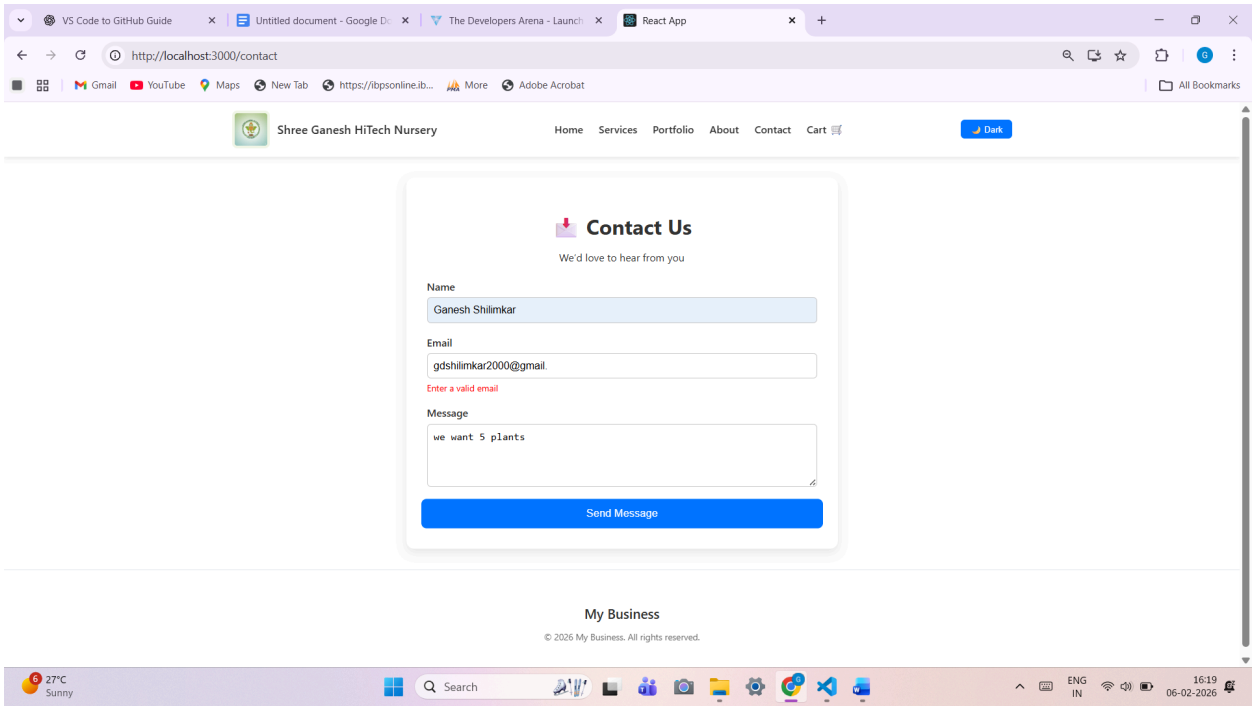

11. Deployment Guide

1. **Build the project:**

   ```
   npm run build
   ```

2. **Host on platforms** like **Netlify**, **Vercel**, or **GitHub Pages**
3. **Upload the `build/` folder** or connect repo directly for automatic deployment
4. Check all **routes, assets, and images** work correctly online

12. How Technical Requirements Were Met

- **React Components:** Modular and reusable
- **Routing:** Each page properly navigable

- **Responsive Design:** Works on all devices
- **Accessibility:** Semantic HTML, alt attributes, labels, color contrast
- **Performance:** Optimized images, minimal re-renders
- **Version Control:** Complete GitHub repository with `.gitignore`