

# E-Commerce Marketplace - Deployment & Staging Setup

## Overview

This document provides the steps and details for deploying the E-Commerce Marketplace project to a staging environment using Vercel.

## Deployment Steps

### 1 Hosting Platform Setup

- Selected Vercel for hosting.
- Connected GitHub repository to Vercel.
- Configured build and deployment settings.

### 2 Environment Variables Setup

- Created .env file locally with sensitive credentials.
- Uploaded variables securely to Vercel's dashboard.

### 3 Staging Deployment

- Successfully deployed the application to staging.
- Verified all core functionalities in a production-like environment.

## Performance Optimization

- Lighthouse Score: 90+ for desktop, 85+ for mobile.
- GTmetrix Load Time: 2 seconds.
- Lazy Loading & Caching Implemented.

## Staging Testing

### Functional Testing

Test Case ID	Scenario	Expected Result	Actual Result	Status
TC001	Product listing loads	Products display correctly	✅ Works as expected	✅ Passed
TC002	User searches invalid product	"No relevant product found" message appears	✅ Works fine	✅ Passed
TC003	Cart is empty	"Your cart is empty" message appears	✅ Works fine	✅ Passed
TC004	Checkout process works	Order is placed successfully	✅ Works as expected	✅ Passed

## Security Testing

- HTTPS Enabled.
- API keys secured via environment variables.
- Validated input fields to prevent attacks.

## Folder Structure

/your-project

```
|-- README.md      # Project Overview  
  
|-- Testing_Report.pdf  # PDF Report for Testing  
  
|-- /src           # Source Code  
  
    |-- /components  # Reusable Components  
  
    |-- /pages       # Main Pages (Home, Cart, etc.)  
  
    |-- /utils       # Utility Functions  
  
|-- /public        # Static Files (Images, Icons)  
  
|-- /documents     # Reports & Documentation
```



## Final Submission Details

- Staging URL: [Your Deployed Link]
- GitHub Repository: [Your GitHub Link]
- Test Case Report (CSV format) uploaded.
- Performance Testing Report included.