# Day 6 Work Documentation: Deployment Preparation and Staging Environment Setup

## Objective

To prepare the marketplace for deployment by setting up a staging environment, configuring hosting platforms, and ensuring the application is ready for a production-like setting.

## Key Activities and Outcomes

### Deployment Strategy Planning

- \*\*Platform Selection:\*\* Chose Vercel for its seamless integration with GitHub and ease of deployment.  
- \*\*Backend Integration:\*\* Ensured smooth interaction between the application and backend services like Sanity CMS.

### Environment Variable Configuration

- \*\*Securing Sensitive Data:\*\* Used `.env` files for storing API keys and other credentials securely.  
- \*\*Platform Configuration:\*\* Uploaded environment variables securely within Vercel’s dashboard.

### Staging Environment Setup

- \*\*Deployment Execution:\*\* Deployed the application to a staging environment to simulate production conditions.  
- \*\*Validation:\*\* Ensured the deployment was successful and the application loaded correctly in staging.

### Staging Environment Testing

- \*\*Functional Testing:\*\* Used Cypress to test workflows, such as product listing and checkout processes.  
- \*\*Performance Testing:\*\* Leveraged Lighthouse to analyze speed and responsiveness.  
- \*\*Security Testing:\*\* Validated input fields and ensured secure API communication.

### Documentation Updates

- \*\*README.md Creation:\*\* Compiled a summary of project activities and deployment steps.  
- \*\*Organized Project Files:\*\* Structured all files and documents from Days 1 to 6 in a well-organized GitHub repository.

## Steps for Implementation

### Hosting Platform Setup

- Connected the GitHub repository to Vercel.  
- Configured build settings and deployment scripts.

### Configure Environment Variables

- Created a `.env` file with essential variables.  
- Uploaded variables securely to the hosting platform.

### Deploy to Staging

- Deployed the application and validated the build process.  
- Verified basic functionality in the staging environment.

### Staging Environment Testing

- Conducted functional, performance, and security testing.  
- Documented all test results, including issues found.

### Documentation Updates

- Created a `README.md` file summarizing all activities and results.  
- Organized all files in the GitHub repository for easy navigation.

## Expected Output

- A fully deployed staging environment.  
- Securely configured environment variables.  
- Comprehensive test case and performance reports.  
- All project files and documentation organized in a GitHub repository.  
- A detailed `README.md` file summarizing project activities.

## Checklist for Day 6

|  |  |
| --- | --- |
| **Activity** | **Status** |
| Deployment Preparation | ✓ |
| Staging Environment Testing | ✓ |
| Documentation | ✓ |
| Form Submission | ✓ |
| Final Review | ✓ |

## Conclusion

Day 6 focused on ensuring the marketplace is deployment-ready, with thorough testing and documentation to support a seamless transition to production.