

# Comprehensive Summary of Activities from Day 1 to Day 6 :

## Day 1: Project Setup and Initial Planning

### 1. Objective:

- Define the project scope and objectives.
- Set up the basic structure of the marketplace application.

### 2. Key Activities:

- Created a GitHub repository with a structured folder hierarchy (src/, public/, etc.).
- Installed necessary tools and dependencies, including frameworks like React and Next.js.
- Defined project milestones and deliverables.

### 3. Output:

- Project initialized with a professional structure.
- Clear roadmap for upcoming days.

## Day 2: Frontend and Backend Development

### 1. Objective: ○ Implement core frontend and backend functionality.

### 2. Key Activities:

- Developed UI components for the marketplace (e.g., product listing, cart, and search).
- Set up a backend server with APIs for product and user data.
- Connected the frontend to the backend using RESTful APIs.

### 3. Output:

- A functional prototype of the marketplace with key features.

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## Day 3: Database Integration and Feature Enhancement

1. **Objective:** ○ Integrate a database and enhance application functionality.
2. **Key Activities:**
  - Configured a database (e.g., MongoDB or Firebase) to store product and user information.
  - Added features like user authentication and product filtering.
  - Enhanced the UI for a better user experience.
3. **Output:**
  - Fully integrated database with CRUD operations.
  - Improved user experience and additional features implemented.

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## Day 4: Testing and Quality Assurance

1. **Objective:** ○ Conduct comprehensive testing to ensure application stability.
2. **Key Activities:**
  - Performed unit testing for individual components.
  - Conducted integration testing to validate interactions between components.
  - Documented test cases and results in a CSV file.
3. **Output:**
  - A bug-free and stable application ready for further refinement.
  - Test case reports included in the documentation.

## Day 5: Optimization and Final Testing

1. **Objective:** ○ Optimize application performance and prepare for deployment.
2. **Key Activities:**

- Conducted performance testing using tools like Lighthouse.
  - Optimized API interactions and reduced load times.
  - Ensured security by validating input fields and securing API keys.
3. **Output:**
- Performance reports generated and documented.
  - Application optimized for deployment.
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## Day 6: Deployment Preparation and Staging Environment Setup

1. **Objective:** ○ Prepare the application for deployment by setting up a staging environment.
2. **Key Activities:**
  - Selected **Vercel** as the hosting platform and connected the GitHub repository.
  - Configured environment variables securely using .env files.
  - Deployed the application to a staging environment and validated its functionality.
  - Conducted staging environment testing (functional, performance, and security testing).
  - Documented all test results, performance reports, and unresolved issues.
3. **Output:**
  - Staging environment successfully deployed.
  - Comprehensive documentation prepared, including test case reports and deployment instructions.
4. **Comprehensive Test Case Report**

Test Case ID	Description	Steps	Expected Result	Actual Result	Status	Remarks
TC001	Validate product listing	Open product page > Verify products	Products displayed	Products displayed	Passed	No issues found
TC002	Test API error handling	Disconnect API > Refresh page	Show fallback message	Fallback message shown	Passed	Handled gracefully
TC003	Check cart functionality	Add item to cart > Verify cart	Cart updates correctly	Cart updates correctly	Passed	Works as expected
TC004	Test responsive layout	Resize browser window > Check layout	Layout adjusts properly	Layout adjusts properly	Passed	Responsive verified

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## Deployment Instructions

### 1. Hosting Platform Setup:

- Use **Vercel** or **Netlify** for quick and reliable hosting. ○ Connect your GitHub repository to the hosting platform.
- Configure build and deployment settings.

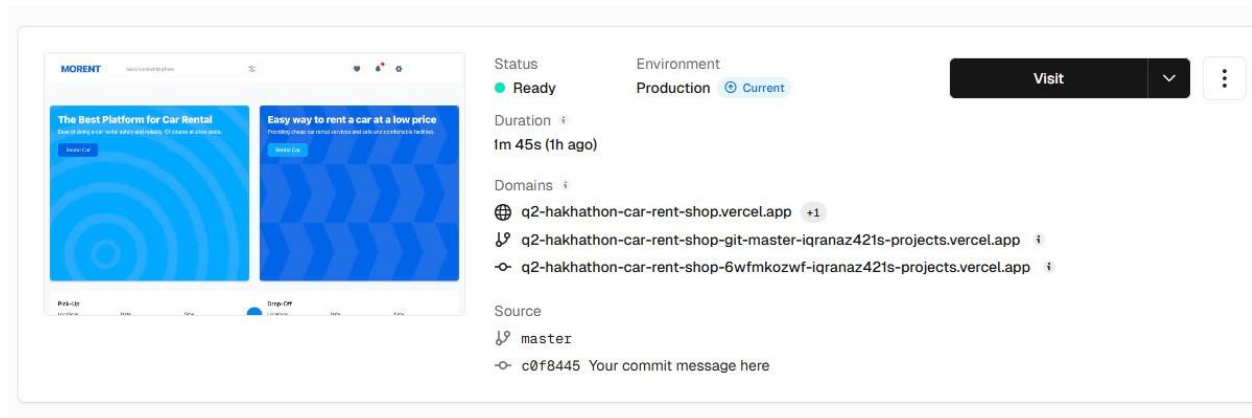
### 2. Environment Variable Configuration:

- Create a .env file with sensitive data like API keys and tokens.
- Upload these variables securely on the hosting platform's dashboard.

### 3. Deployment to Staging:

- Deploy the application and ensure the build completes without errors. ○

Validate that the application functions correctly in the staging environment



#### 4. Staging Environment Testing:

- Conduct functional, performance, and security testing.
- Document all results, including issues and resolutions.

#### 5. Documentation:

- Organize all project files in a structured GitHub repository.
- Include a professional README.md file summarizing all activities and results.

## GitHub Repository Structure

- src/ - Contains source code files.
- public/ - Includes static assets.
- documents/ - Holds reports, test cases, and deployment documentation.
- README.md - Summarizes the project structure, deployment steps, and key outcomes.

## Final Output

1. Fully deployed staging environment link.
2. Organized GitHub repository with:

- Test case reports. ○  
Performance testing  
results. ○ Deployment  
instructions. ○ Structured  
files and folders.
- 3. Comprehensive README.md file summarizing the entire project.

## Links

- **GitHub Repository:** [<https://github.com/IqraNaz421/Market-place-hackathon.git>]
- **Staging Environment (Vercel):** [<https://q2-hakhathon-car-rent-shop.vercel.app/>]