Report on Day 6: Deployment Preparation and Staging Environment Setup

Objective

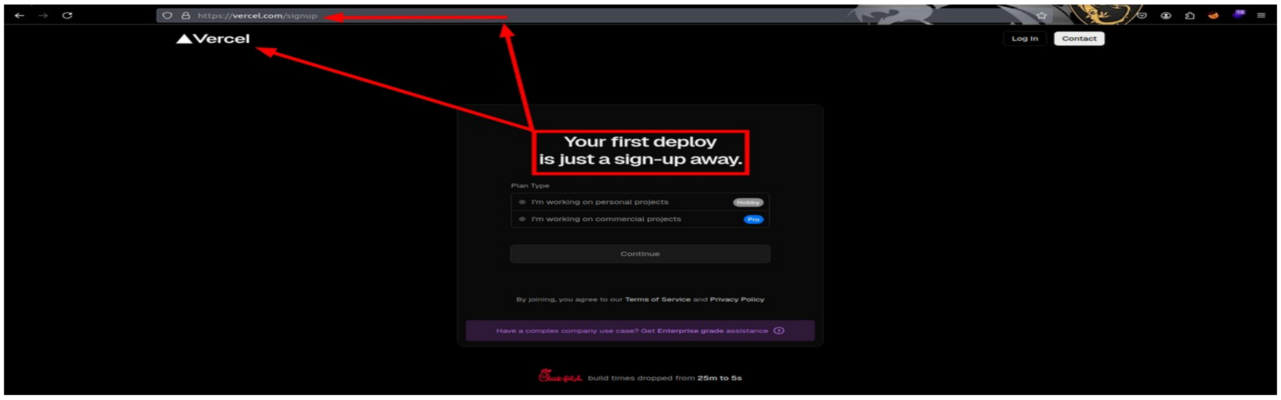
Day 6 was dedicated to preparing the marketplace application for deployment, ensuring it is production-ready. This involved setting up a staging environment, configuring hosting platforms, conducting thorough testing, and documenting the deployment process to guarantee a seamless transition to production.

Key Learning Outcomes

1. Deployment Setup

a. Hosting Platform Selection

- **Chosen Platform**: Vercel



https://vercel.com/signup

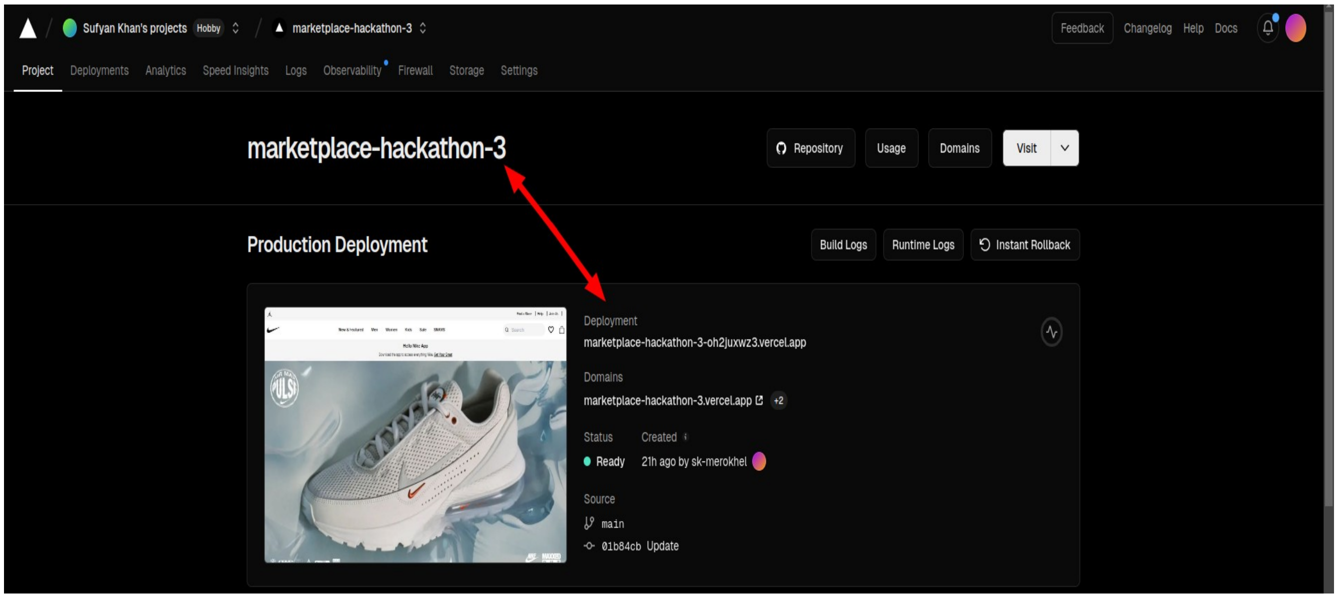
Your first deploy is just a sign-up away.

Plan Type
- I'm working on personal projects — Hobby
- I'm working on commercial projects — Pro

By joining, you agree to our Terms of Service and Privacy Policy

Have a complex company use case? Get Enterprise grade assistance

build times dropped from 25m to 5s



Sufyan Khan's projects · Hobby / marketplace-hackathon-3

marketplace-hackathon-3

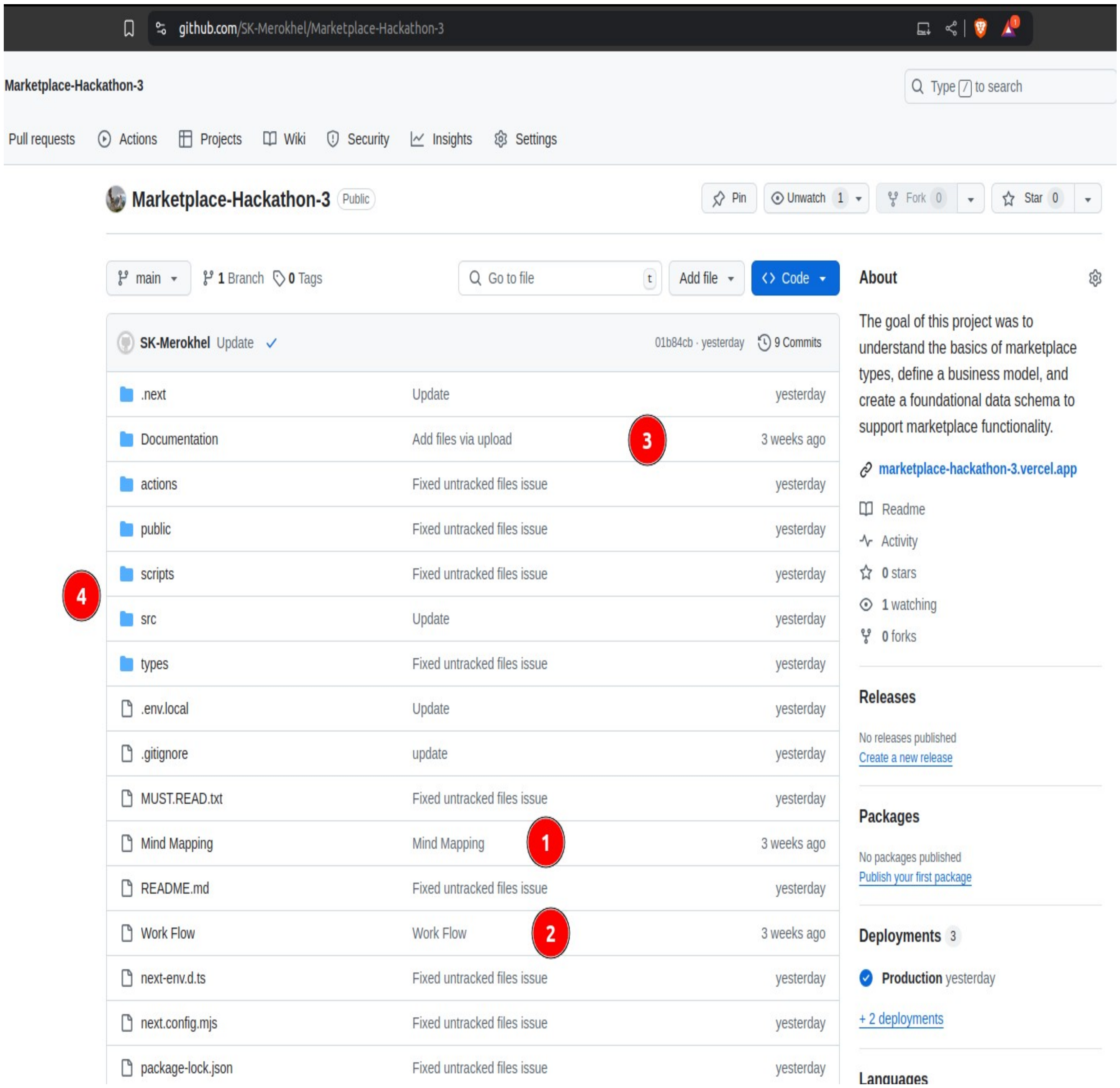
Production Deployment

Deployment: marketplace-hackathon-3-oh2juxwz3.vercel.app
Domains: marketplace-hackathon-3.vercel.app +2
Status: Ready
Created: 21h ago by sk-merokhel
Source: main
01b84cb Update

- **Reasons for Selection**:
  - Native support for Next.js
  - Seamless GitHub integration for CI/CD workflows
  - Automatic deployments from GitHub
  - Scalable infrastructure to handle varying traffic loads
  - Serverless functions for backend logic without server management

b. GitHub Integration

- Linked the project repository to Vercel to enable automated builds and deployments.
- Ensured that each push to the repository triggers a deployment process.



github.com/SK-Merokhel/Marketplace-Hackathon-3

Marketplace-Hackathon-3

Marketplace-Hackathon-3 Public

SK-Merokhel Update ✓ 01b84cb · yesterday 9 Commits

.next	Update	yesterday
Documentation	Add files via upload	3 weeks ago
actions	Fixed untracked files issue	yesterday
public	Fixed untracked files issue	yesterday
scripts	Fixed untracked files issue	yesterday
src	Update	yesterday
types	Fixed untracked files issue	yesterday
.env.local	Update	yesterday
.gitignore	update	yesterday
MUST.READ.txt	Fixed untracked files issue	yesterday
Mind Mapping	Mind Mapping	3 weeks ago
README.md	Fixed untracked files issue	yesterday
Work Flow	Work Flow	3 weeks ago
next-env.d.ts	Fixed untracked files issue	yesterday
next.config.mjs	Fixed untracked files issue	yesterday
package-lock.json	Fixed untracked files issue	yesterday

About

The goal of this project was to understand the basics of marketplace types, define a business model, and create a foundational data schema to support marketplace functionality.

marketplace-hackathon-3.vercel.app

Readme

Activity

0 stars

1 watching

0 forks

Releases

No releases published

Create a new release

Packages

No packages published

Publish your first package

Deployments 3

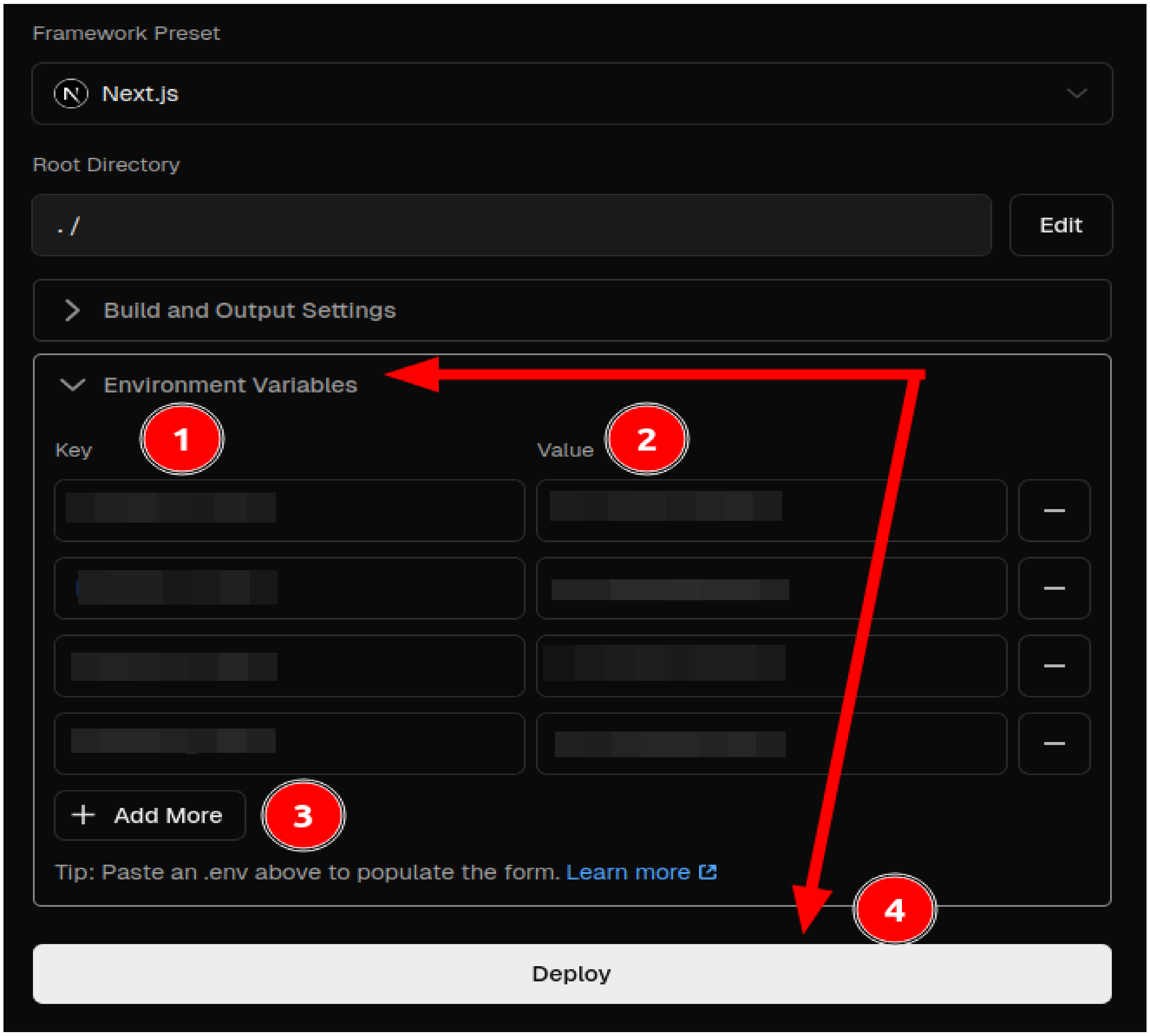
Production yesterday

+ 2 deployments

Languages

c. Configuration

- Configured build settings, environment variables, and API keys securely within Vercel.
- Managed production and staging environments effectively.



Framework Preset

Next.js

Root Directory

./

Environment Variables

Key	Value
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]

Tip: Paste an .env above to populate the form. Learn more

d. Environment Variable Management

- Configured essential variables such as `projectId`, `dataset`, and `api-token` within Vercel.
- Ensured sensitive information is securely stored and not exposed in the codebase.

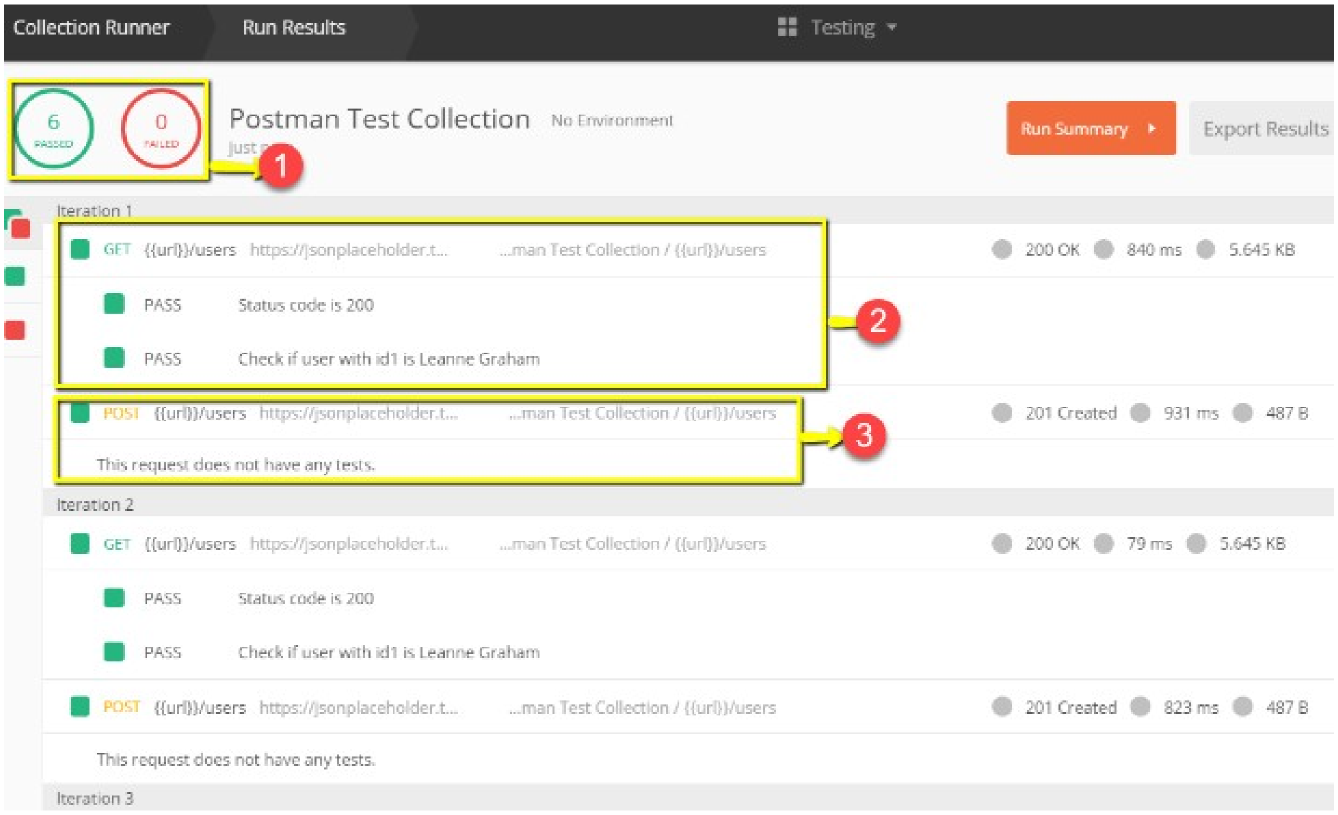
e. Validation

- Successfully deployed the application in a production-like staging setup to verify deployment readiness.

2. Comprehensive Testing

a. Functional Testing

- **Cypress**: Performed end-to-end testing on user workflows such as product listing, cart operations, and checkout.
- **Postman**: Verified API responses and ensured correct data retrieval.



6 PASSED 0 FAILED

Postman Test Collection No Environment

Iteration 1

GET {{url}}/users https://jsonplaceholder.t... ...man Test Collection / {{url}}/users 200 OK 840 ms 5.645 KB

PASS Status code is 200

PASS Check if user with id1 is Leanne Graham

POST {{url}}/users https://jsonplaceholder.t... ...man Test Collection / {{url}}/users 201 Created 931 ms 487 B

This request does not have any tests.

Iteration 2

GET {{url}}/users https://jsonplaceholder.t... ...man Test Collection / {{url}}/users 200 OK 79 ms 5.645 KB

PASS Status code is 200

PASS Check if user with id1 is Leanne Graham

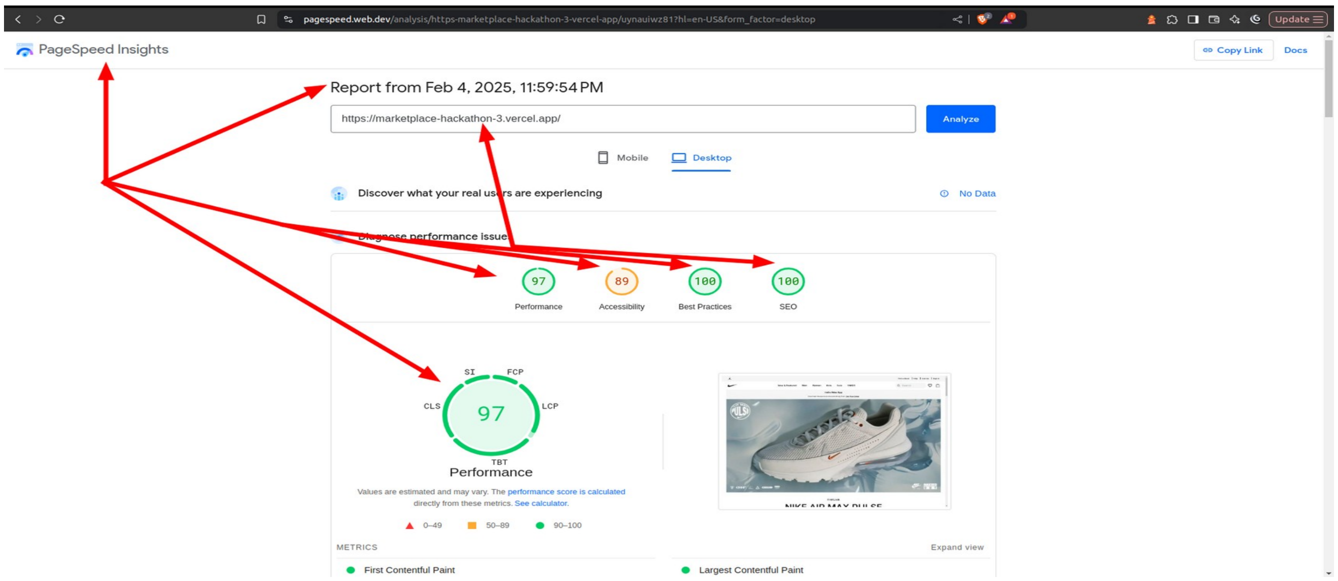
POST {{url}}/users https://jsonplaceholder.t... ...man Test Collection / {{url}}/users 201 Created 823 ms 487 B

This request does not have any tests.

Iteration 3

b. Performance Testing

- **Lighthouse & GTmetrix**: Measured speed, responsiveness, and overall site performance. Optimized where necessary.



pagespeed.web.dev/analysis/https-marketplace-hackathon-3-vercel-app/uynauiwz81?hl=en-US&form_factor=desktop

Report from Feb 4, 2025, 11:59:54 PM

https://marketplace-hackathon-3.vercel.app/

Discover what your real users are experiencing No Data

Diagnose performance issues

97 Performance 89 Accessibility 100 Best Practices 100 SEO

97 Performance

Values are estimated and may vary. The performance score is calculated directly from these metrics. See calculator.

▲ 0–49 ■ 50–89 ● 90–100

METRICS

● First Contentful Paint ● Largest Contentful Paint

c. Security Testing

- Implemented input validation to prevent common security vulnerabilities.
- Ensured HTTPS connections and secured API keys against unauthorized access.

d. Cross-Device Compatibility

- Conducted tests on multiple devices and browsers to confirm consistent user experience across platforms.

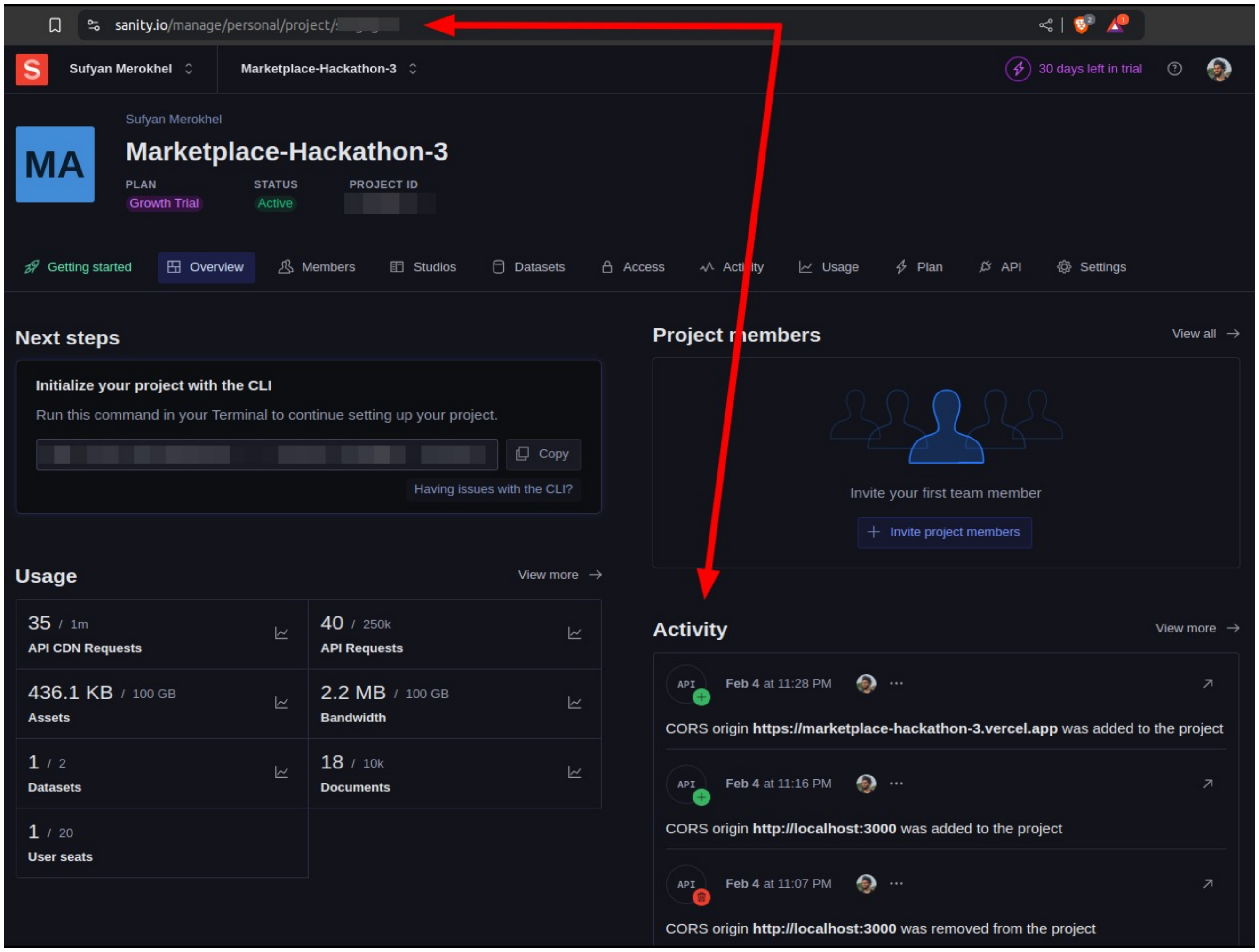
e. Error Handling

- Evaluated error-handling mechanisms, ensuring meaningful error messages and resilience against failures.

3. Deployment Strategy

a. Hosting and Backend Integration

- Verified smooth interaction between the frontend and backend services (Sanity CMS and third-party APIs).
- Ensured security by correctly configuring environment variables to protect sensitive data.



Sufyan Merokhel

MA Marketplace-Hackathon-3

PLAN: Growth Trial
STATUS: Active
PROJECT ID: [redacted]

Next steps

Initialize your project with the CLI

Run this command in your Terminal to continue setting up your project.

[redacted]

Project members

Invite your first team member

Usage

35 / 1m API CDN Requests	40 / 250k API Requests
436.1 KB / 100 GB Assets	2.2 MB / 100 GB Bandwidth
1 / 2 Datasets	18 / 10k Documents
1 / 20 User seats	

Activity

Feb 4 at 11:28 PM
CORS origin **https://marketplace-hackathon-3.vercel.app** was added to the project

Feb 4 at 11:16 PM
CORS origin **http://localhost:3000** was added to the project

Feb 4 at 11:07 PM
CORS origin **http://localhost:3000** was removed from the project

b. Staging Environment Setup

- Deployed the application to a staging environment for pre-production testing.
- Ensured that all features worked correctly before moving to production.

4. Staging Environment Testing

a. Deployment Validation

- Checked build logs on Vercel to confirm a successful deployment.
- Accessed the staging URL and conducted user experience testing.

b. Troubleshooting

- Resolved any issues encountered during the deployment process by analyzing logs and fixing environment configurations.

c. Structured Test Case Reporting

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 form validation	Submit form with empty fields	Display error message	Error message displayed	Failed	Missing validation check
TC005	Verify HTTPS connection	Open site > Check HTTPS status	HTTPS enabled	HTTPS enabled	Passed	Secure connection

Conclusion

Day 6's deployment preparation and staging setup have ensured the marketplace application is fully ready for production deployment. Key milestones achieved include:

- Deployment to a staging environment on Vercel.
- Secure configuration of environment variables.
- Comprehensive functional, performance, and security testing.
- Documentation of test cases and performance benchmarks.
- Organized repository with a professional README.md file.

With these steps completed, the project is positioned for a smooth and successful production deployment.