

Deployment Preparation and Staging Environment Setup

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Overview:

This report details the process and considerations for deploying a web application effectively and ensuring optimal performance. It includes selecting a deployment platform, connecting your github, setting up your environment variable and performance testing.

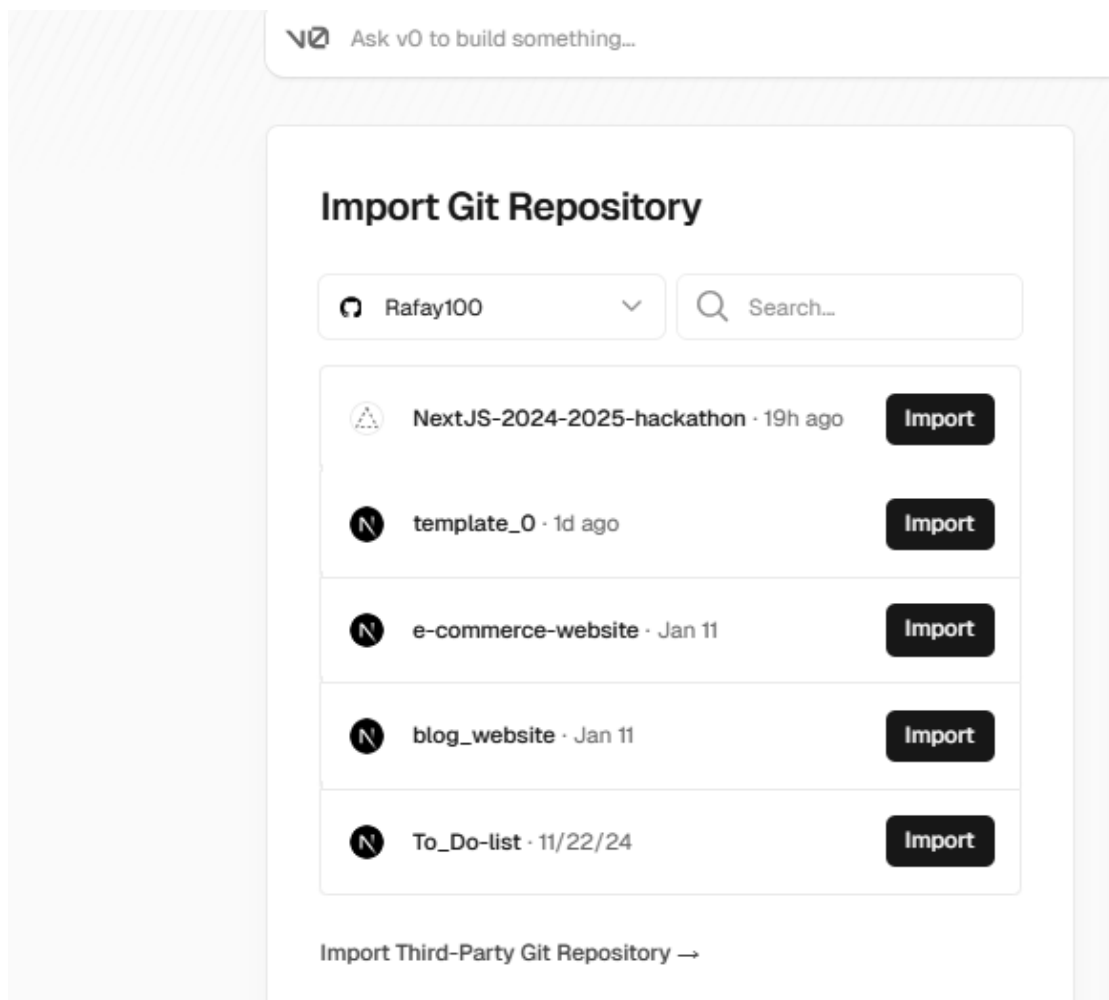
Selecting a hosting environment:

For this project, we are going to use **Vercel** for the deployment of our application due to its simplicity, speed, and seamless integration with modern web development frameworks like Next.js. Vercel offers a hassle-free setup process, enabling us to connect our GitHub repository and automate the deployment pipeline efficiently. Its global Content Delivery Network (CDN) ensures fast load times and optimal performance for users across

the globe. Additionally, Vercel's support for serverless functions, custom domains, and real-time preview links makes it a robust and developer-friendly choice for deploying modern web applications. With these advantages, Vercel provides the perfect platform to ensure our project is scalable, secure, and accessible to users everywhere.

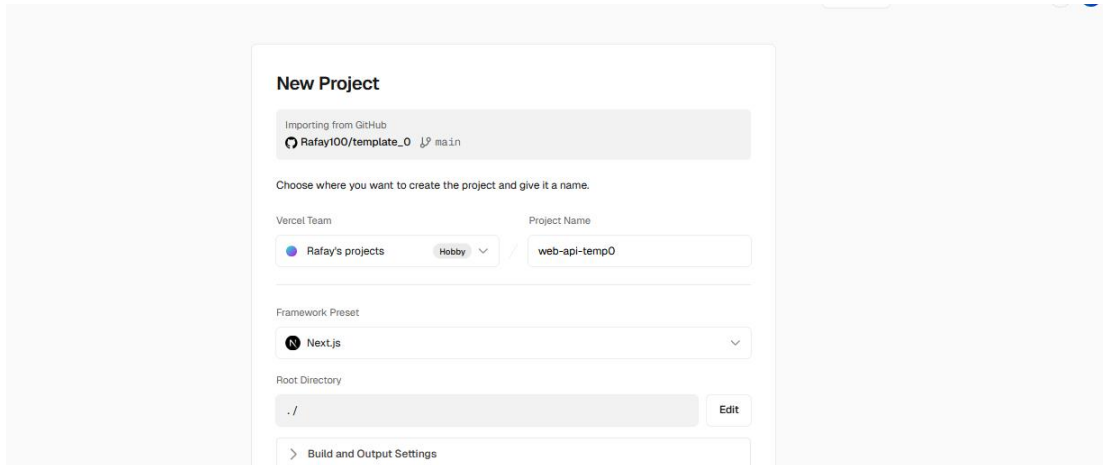
Connecting Github account:

After selecting we will connect our github account with vercel to import our project for easy deployment.



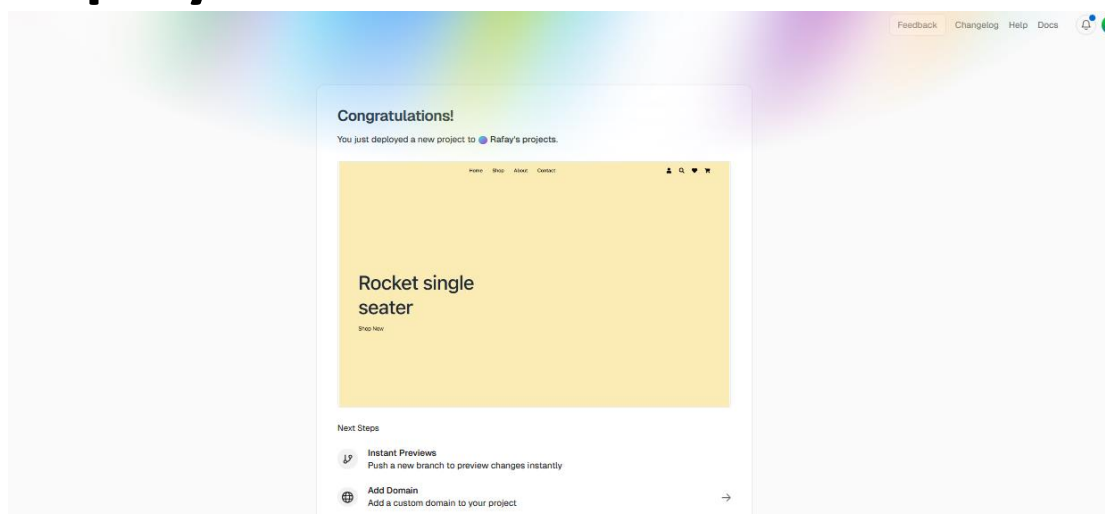
Setting up environment variable:

After importing our project this will be our interface.

A screenshot of the Vercel 'New Project' form. The form is titled 'New Project' and shows 'Importing from GitHub' with the repository 'Rafay100/template_0' and branch 'main'. Below this, it asks to 'Choose where you want to create the project and give it a name.' The 'Vercel Team' is set to 'Rafay's projects' and the 'Project Name' is 'web-api-temp0'. The 'Framework Preset' is 'Next.js'. The 'Root Directory' is './'. There is an 'Edit' button next to the root directory and a 'Build and Output Settings' link at the bottom.

Here you will add your project name and select the root folder.
below root folder we have environment variable part. That where we are going to include our environment variable that we have in our .env file. From there we are going to enter our environment variable there.

Checking Website functionality after deployment:



Check your website functionality like cart functionalities or check if

Your API is fetching data correctly notifications functionality and other functionality.

Performance testing:

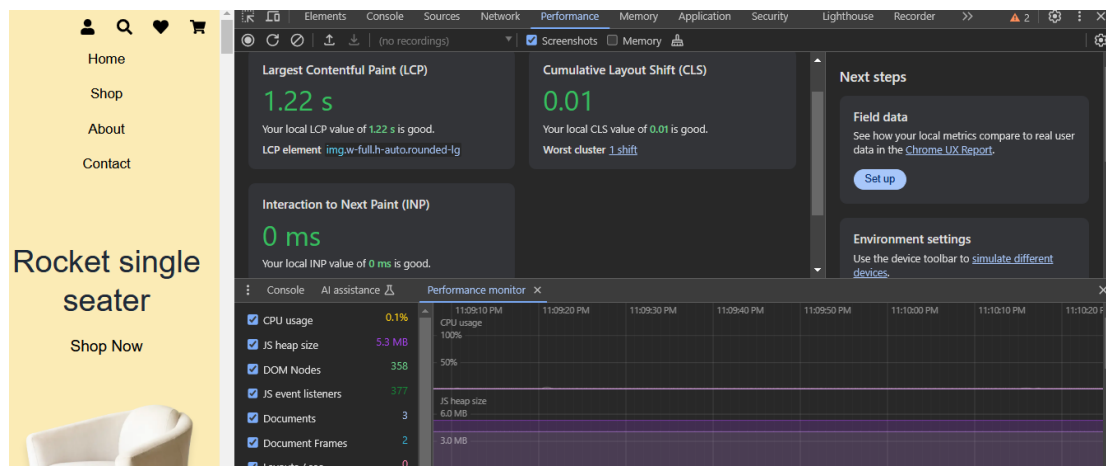
After checking website functionality we are going to check our website performance.

To check a website performance there are multiple website to check performance. But for our comforty I used lighthouse and

these are the result I got of my website:

For Home page:

Small devices:





Performance



Accessibility



Best Practices



SEO

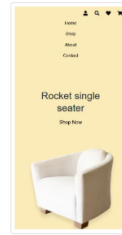


Performance

Values are estimated and may vary. The [performance score is calculated](#) directly from these metrics. [See calculator.](#)

▲ 0-49 ■ 50-89 ● 90-100

METRICS



Expand view