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- Viewed the response, including the status code, response body, and headers.

5. View the Response

- Used different viewing formats (Pretty, Raw, Preview) to examine the response.

6. Save the Request

- Saved the request for future use in a collection.

7. Use Environment Variables

- Created environment variables (e.g., `api_url`) to dynamically store values.
- Used variables in request URLs (e.g., `{{api_url}}`).

8. Test and Automate API Requests

- Added tests in the Tests tab to validate responses (e.g., check if status code is 200).
- Used **Collection Runner** to execute multiple requests sequentially.

Secure API Communication and Storing Sensitive Data



To ensure secure API communication and manage sensitive data like API keys, I followed these steps:

1. Ensuring API Calls Over HTTPS

- I made sure that all API calls in my project are made over **HTTPS** (Hypertext Transfer Protocol Secure) to ensure secure transmission of data over the internet.
- I verified the base URL of the API to ensure it starts with `https://`.

Example:

javascript



 Copy  Edit

```
const apiUrl = 'https://api.example.com/data'; // Secure API endpoint
```

- For all API calls using `fetch` or `Axios`, the URLs are configured with **HTTPS** by default.

Example:

javascript

 Copy  Edit

```
// Example using fetch  
const response = await fetch('https://api.example.com/data');
```



2. Storing Sensitive Data in Environment Variables

For securely managing sensitive data such as API keys, secrets, or authentication tokens, I used **environment variables**. Here's how I implemented this in my **Next.js** project:

Step 1: Created `.env.local` File

- I created a `.env.local` file in the root directory of the Next.js project. This file is not committed to version control because it's added to `.gitignore`.
- Inside the `.env.local` file, I stored sensitive data, including API URLs and keys, like so:

plaintext

 Copy  Edit

```
NEXT_PUBLIC_API_URL=https://api.example.com  
API_KEY=your_api_key_here
```

- The `NEXT_PUBLIC_` prefix is used for variables that need to be accessible on the client-side, like the API URL.
- For sensitive variables like `API_KEY`, I avoided the `NEXT_PUBLIC_` prefix to keep it only accessible server-side.

Step 2: Accessing Environment Variables in Code

- In my code, I accessed these environment variables securely using `process.env`.

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Example:

javascript

Copy Edit

```
const apiUrl = process.env.NEXT_PUBLIC_API_URL;  
const apiKey = process.env.API_KEY;  
  
const response = await fetch(`${apiUrl}/data?api_key=${apiKey}`);
```

- The `NEXT_PUBLIC_API_URL` variable is safe to expose to the client-side since it's prefixed with `NEXT_PUBLIC_`.
- The `API_KEY` variable is only used on the server-side to avoid exposing it to the browser.

Step 3: Adding `.env.local` to `.gitignore`

- To ensure the sensitive data doesn't get committed to version control, I added the `.env.local` file to my `.gitignore` file:

plaintext

Copy Edit

```
.env.local
```

3. Using Environment Variables on Deployment

For deployment on Vercel (or similar platforms like Netlify or AWS), I securely configured environment variables:

- I navigated to the Vercel dashboard and accessed the **Settings > Environment Variables** section.
 - Here, I added the necessary environment variables, including **API_KEY**, ensuring they are securely injected during production.
-

By following these steps, I ensured that:

- API keys and sensitive data are securely stored in environment variables and not exposed on the client-side.
 - All API communication is encrypted via **HTTPS** for secure data transmission.
-

Postman API Testing Summary

I have followed these steps to test APIs using Postman:

1. Download and Install Postman

- Downloaded and installed Postman from the official website.

2. Create a New Request

- Opened Postman and clicked the "New" button to create a new request.
- Chose a collection to save the request.

3. Configure the Request

- Entered the API endpoint URL (e.g., `https://api.example.com/data`).
- Selected the appropriate HTTP method (GET, POST, PUT, DELETE).
- Added necessary headers, such as **Authorization** (`Bearer <your_token>`).
- Added request body data in the **raw** format for POST or PUT requests.

4. Send the Request

- Clicked **Send** to trigger the API call.
- Viewed the response, including the status code, response body, and headers.

5. View the Response



My Workspace

New

Import



Collections



Environments



History



My first collection ☆

- First folder inside collection
 - GET
 - POST
 - GET
- Second folder inside collection
 - GET
 - GET

Create a collection for your requests

A collection lets you group related requests and easily set common authorization, tests, scripts, and variables for all requests in it.

Create Collection

HEAD https://sanity-nextjs-a +



https://sanity-nextjs-application.vercel.app/api/hackathon/template7

Save

Share

HEAD ▾

https://sanity-nextjs-application.vercel.app/api/hackathon/template7

Send ▾

Params

Authorization

Headers (7)

Body

Scripts

Settings

Cookies

Query Params

	Key	Value	Description	⋮ Bulk Edit
	Key	Value	Description	

Body

Cookies

Headers (11)

Test Results



200 OK

• 4.55 s • 468 B •



{ } JSON ▾

▶ Preview

🔄 Visualize ▾

1

**200 OK**

Request successful. The server has responded as required.

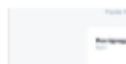
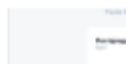
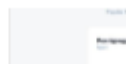
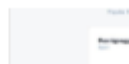
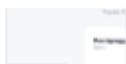




Mobile



Desktop

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DIAGNOSTICS

- ▲ Largest Contentful Paint image was lazily loaded
- ▲ Reduce initial server response time — Root document took 640 ms
- ▲ Reduce unused JavaScript — Potential savings of 25 KiB
- ▲ Eliminate render-blocking resources — Potential savings of 110 ms
- JavaScript execution time — 0.3 s
- Minimizes main-thread work — 0.6 s
- Avoid long main-thread tasks — 1 long task found
- Avoid large layout shifts — 1 layout shift found
- Avoids enormous network payloads — Total size was 244 KiB
- Avoids an excessive DOM size — 510 elements
- Avoid chaining critical requests — 1 chain found
- Largest Contentful Paint element — 2,060 ms

More information about the performance of your application. These numbers don't [directly affect](#) the Performance score.



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○ Minimizes main-thread work — 0.5 s



○ Largest Contentful Paint element — 490 ms



○ Avoid long main-thread tasks — 1 long task found



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PASSED AUDITS (25)

[Show](#)

My Workspace

New

Import



Collections



Environments



History



My first collection



First folder inside collection

GET

POST

GET

Second folder inside collection

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Share

HEAD



https://sanity-nextjs-application.vercel.app/api/hackathon/template7

Send



Params

Authorization

Headers (7)

Body

Scripts

Settings

Cookies

Query Params

	Key	Value	Description	⋮ Bulk Edit
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Headers (11)

Test Results



200 OK

• 4.55 s • 468 B •



{ } JSON ▾

▶ Preview

🔄 Visualize



1



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