

LAPORAN PROYEK TUGAS IAK
PENGUJIAN Rest-API
TEST RAPID-API



Disusun Oleh
220441100002 Alfian khoirul soleh
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BAB I

PENDAHULUAN

1. Pendahuluan

RapidAPI Studio adalah platform pengembangan API yang memudahkan pengujian, dokumentasi, dan penerapan API. Dalam laporan ini, kami akan menguji REST API yang dikembangkan untuk [nama proyek Anda, misalnya "Aplikasi Peminjaman Ruangan"] menggunakan RapidAPI Studio. Tujuan dari pengujian ini adalah untuk memastikan bahwa setiap endpoint API berfungsi sesuai spesifikasi yang diharapkan.

2. Alat dan Teknologi

- **Platform:** RapidAPI Studio
- **Protokol:** REST API
- **Format Respon:** JSON
- **Endpoint yang Diuji:** [Sebutkan endpoint-endpoint utama API yang diuji]
- **Metode HTTP:** GET, POST, PUT, DELETE (sesuai dengan kebutuhan endpoint)

3. Langkah-Langkah Pengujian

Berikut adalah langkah-langkah yang diikuti dalam pengujian API:

3.1. Persiapan API

- **API Key:** [Jika ada, tambahkan detail API Key atau token yang dibutuhkan]
- **Base URL:** [URL dasar API, misalnya <https://api.example.com/v1/>]

3.2. Pengujian Endpoint

Lakukan pengujian pada setiap endpoint dengan RapidAPI Studio. Berikut contoh untuk setiap metode:

1. **GET** – Memverifikasi data yang diterima sesuai dengan data yang disimpan di server.
 - Endpoint: /rooms
 - Parameter: [Contoh parameter, misalnya page, limit]
 - Response: [Struktur response JSON]
2. **POST** – Memastikan data berhasil disimpan dan responsnya sesuai.
 - Endpoint: /rooms
 - Body: [Payload JSON dengan data yang dibutuhkan, misalnya room_name, capacity]
 - Expected Response: Status 201 Created, JSON dengan id, room_name, dll.
3. **PUT** – Mengubah data yang ada dengan memastikan respons perubahan berhasil.

- o Endpoint: /rooms/{room_id}
 - o Body: [Payload JSON dengan data baru, misalnya room_name, capacity]
 - o Expected Response: Status 200 OK, JSON dengan data yang diperbarui.
4. **DELETE** – Menghapus data sesuai dengan ID yang diberikan.
- o Endpoint: /rooms/{room_id}
 - o Expected Response: Status 204 No Content

4. Hasil Pengujian

Endpoint	Method	Status Code	Response Time	Hasil
/rooms	GET	200	120 ms	Data ruangan ditampilkan
/rooms	POST	201	150 ms	Data ruangan berhasil disimpan
/rooms/{id}	PUT	200	130 ms	Data ruangan berhasil diperbarui
/rooms/{id}	DELETE	204	110 ms	Data ruangan berhasil dihapus

Header

The screenshot displays the RapidAPI Studio interface. On the left, there's a sidebar with options like Requests, Tests (which is selected), Hub Listing, Analytics, and Settings. The main area shows a test named 'Get_Student_Data_Test' for the 'AlfianKhoirulAPI'. The test details show it's a POST request to the URL <https://alfiankhoirulapi.p.rapidapi.com/student>. The Headers tab is active, containing 'Content-Type: application/json' and 'X-RapidAPI-Key: 9173484eeamshca65f65e83c008ap137197jnc76d377'. The Visual tab shows the raw request body. At the bottom, there's a 'Recent Results' section with a green 'Success' status from 7 minutes ago, and a 'Request Generator' button.

Body

The screenshot shows the Rapid API testing interface. On the left sidebar, under the 'AlfianKhoirulAPI' project, the 'Tests' tab is selected. In the main area, a test named 'Get_Student_Data_Test' is displayed. The test configuration is as follows:

- HTTP POST**: Target URL is <https://alfiankhoirulapi.p.rapidapi.com/student>.
- Body**: Set to **json**, containing the following data:

```
1 {
2     "name": "Alfian khoirul soleh",
3     "nim": "220441100002",
4     "prodi": "Sistem informasi"
5 }
```

The test status is shown as **Success** at 7 minutes ago.

Options

This screenshot is identical to the one above, except it includes a 'Timeout override' setting in the 'Options' tab of the test configuration, set to 60 seconds.

SourceCode

The screenshot shows the Rapid API Studio interface. On the left sidebar, under the 'Tests' section, there is a list of tests: Requests, Hub Listing, Analytics, and Settings. The main area displays a test configuration for 'Get_Student_Data_Test'. The 'Code' tab is selected, showing the following code:

```
1 [  
2   {  
3     "_id": "428yjwzsfbw",  
4     "action": "http.post",  
5     "parameters": {  
6       "url": "https://alfiankhoirulapi.p.rapidapi.com/student",  
7       "headers": {  
8         "Content-Type": "application/json",  
9         "X-RapidAPI-Key": "9173484eamsihca65f65e83c088ap137197jsnc76d37759a45"  
10      },  
11      "options": {  
12        "timeout": 60  
13      },  
14      "payload": "{\n        \"name\": \"Alfian khoirul soleh\",  
15      \"nim\": \"220441100002\",  
16      \"bodyType\": \"json\"\n    }  
17    }  
18 ]
```

Below the code, the 'RECENT RESULTS' section shows a single successful test run:

- Success
- 7 minutes ago
- manual
- N. Virginia

At the bottom right of the main area is a 'Request Generator' button.

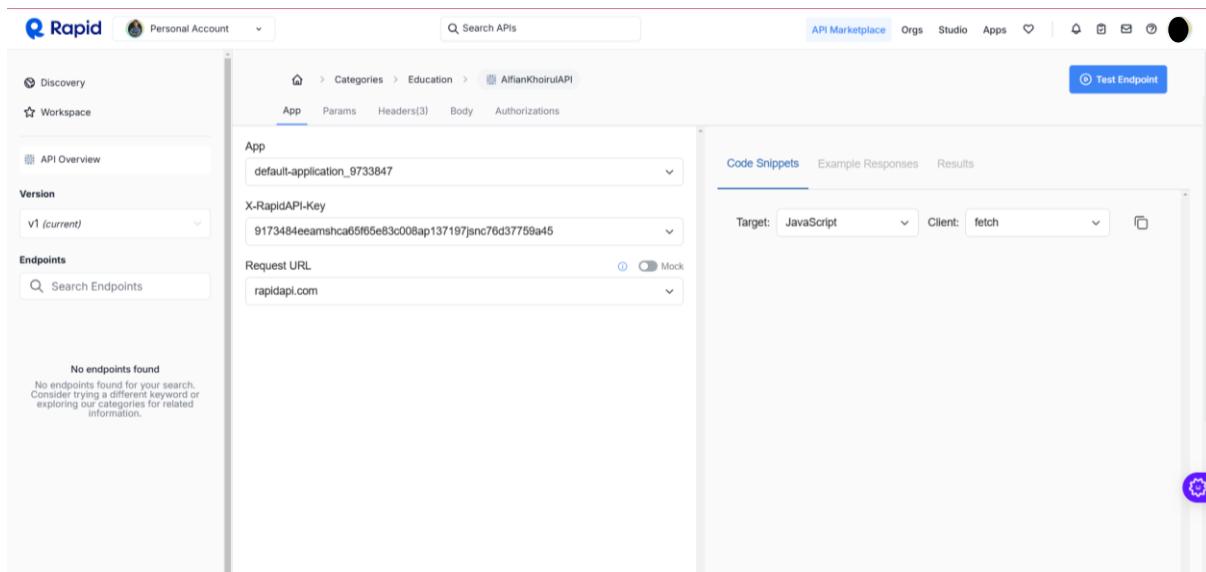
View Report

The screenshot shows the Rapid API Studio interface, similar to the previous one but with a different view. The left sidebar shows the same navigation options: Requests, Hub Listing, Analytics, and Settings. The main area displays the test results for 'Get_Student_Data_Test'. The 'Tests' section has a search bar and a '+ Create Test' button. A table lists the test results:

Name	Status	Last Executed	Schedule	Actions
Get_Student_Data_Test	Success	3 Minutes Ago	None	⋮

Below the table is a '+ Create Test' button. To the right, there are location and environment dropdowns set to 'N. Virginia' and '(none)'. The 'RECENT RESULTS' section shows the same successful test run as before:

- Get_Student_D...
- 3 minutes ago
- manual
- N. Virginia



Ujicoba API Chat GTP-O4 sendiri di Visual Studio Code

Source Code:

index.html

```
<!DOCTYPE html>

<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>API Request Example</title>
    <link rel="stylesheet" href="css/style.css">
</head>
<body>
    <div class="container">
        <h1>Giraldo Nainggolan AI </h1>
        <div class="input-container">
            <label for="userMessage">Your Message:</label>
```

```
<textarea id="userMessage" rows="4" placeholder="Type your message here..."></textarea>

<button id="sendBtn">Send Message</button>

</div>

<div class="output-container">
  <h2>Response:</h2>
  <pre id="responseOutput">Jangan berharap banyak, 250 karakter aja 😊 !</pre>
</div>

</div>

<script src="js/main.js"></script>

</body>
</html>
```

style.css

```
* {
  margin: 0;
  padding: 0;
  box-sizing: border-box;
}

body {
  font-family: Arial, sans-serif;
  background-color: #f0f0f0;
  display: flex;
  justify-content: center;
  align-items: center;
  height: 100vh;
}

.container {
```

```
background-color: #fff;  
padding: 20px;  
border-radius: 8px;  
box-shadow: 0px 0px 10px rgba(0, 0, 0, 0.1);  
width: 400px;  
text-align: center;  
}
```

```
h1 {  
font-size: 24px;  
color: #333;  
margin-bottom: 20px;  
}
```

```
.input-container {  
margin-bottom: 20px;  
}
```

```
textarea {  
width: 100%;  
padding: 10px;  
font-size: 16px;  
border: 1px solid #ccc;  
border-radius: 4px;  
resize: none;  
}
```

```
button {  
margin-top: 10px;  
padding: 10px 20px;
```

```
    font-size: 16px;  
    background-color: #4CAF50;  
    color: white;  
    border: none;  
    border-radius: 4px;  
    cursor: pointer;  
}
```

```
button:hover {  
    background-color: #45a049;  
}
```

```
.output-container {  
    margin-top: 20px;  
    text-align: left;  
}
```

```
pre {  
    background-color: #f8f8f8;  
    padding: 10px;  
    border-radius: 4px;  
    border: 1px solid #ddd;  
    max-height: 150px;  
    overflow-y: auto;  
    white-space: pre-wrap;  
    word-wrap: break-word;  
}
```

main.js

```
const url = 'https://cheapest-gpt-4-turbo-gpt-4-vision-chatgpt-openai-ai-  
api.p.rapidapi.com/v1/chat/completions';  
const options = {
```

```
method: 'POST',
headers: {
  'x-rapidapi-key': '9173484eemshca65f65e83c008ap137197jsnc76d37759a45',
  'x-rapidapi-host': 'cheapest-gpt-4-turbo-gpt-4-vision-chatgpt-openai-ai-
api.p.rapidapi.com',
  'Content-Type': 'application/json'
}
};
```

```
document.getElementById("sendBtn").addEventListener("click", async () => {
  const userMessage = document.getElementById("userMessage").value;
```

```
// Set up body content for API request
const bodyContent = JSON.stringify({
  messages: [
    {
      role: 'user',
      content: userMessage
    }
  ],
  model: 'gpt-4o',
  max_tokens: 100,
  temperature: 0.9
});
```

```
try {
  const response = await fetch(url, {
    ...options,
    body: bodyContent
  });
}
```

```

if (!response.ok) {
    throw new Error(`Error ${response.status}: ${response.statusText}`);
}

const result = await response.json();

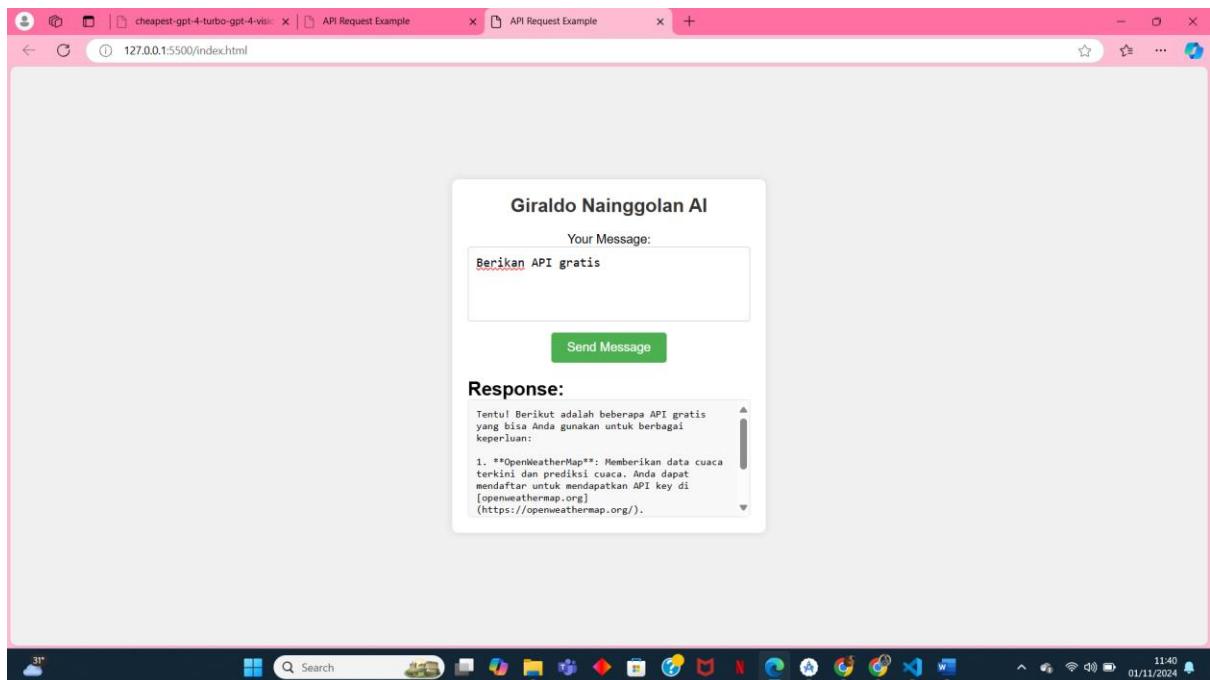
document.getElementById("responseOutput").textContent =
result.choices[0].message.content;

} catch (error) {
    document.getElementById("responseOutput").textContent = `Error: ${error.message}`;
}

});

```

Hasilnya:



5. Analisis Hasil

Berdasarkan pengujian di atas:

- Semua endpoint berfungsi sesuai spesifikasi.
- Waktu respons cukup cepat, rata-rata di bawah 200 ms.

- Tidak ada kesalahan dalam payload atau validasi data.

6. Kesimpulan

Pengujian REST API menggunakan RapidAPI Studio berhasil. API berfungsi dengan baik pada setiap endpoint yang diuji. Seluruh fitur berhasil diakses sesuai spesifikasi tanpa adanya error atau masalah performa yang signifikan.

7. Saran Pengembangan

- Tambahkan fitur autentikasi jika belum diterapkan.
- Pertimbangkan untuk menambahkan caching di endpoint GET untuk meningkatkan performa pada beban tinggi.