

Praktikum 9 - Matakuliah Pilihan 1 (Web)

Program Studi: Teknik Informatika

Lakukan praktikum dibawah ini, dan buat screenshot untuk pembuktian mengerjakan setiap poin dengan mengisi tabel dibawah, kemudian tunjukan hasil akhir dari men-share repository github yang telah dibuat.

A. Menyediakan API Enpoints

1. Lanjutkan Project Praktikum 8, dengan menggunakan file yang sama (copy)
2. Tambahkan pada database, sebuah tabel produk Isi tabel produk seperti pada tabel berikut:
(Buat 10 item)

id	nama	deskripsi	harga	foto
1.	Indomie Goreng		2500	images/miegor eng.jpg
2.
10.

3. Seperti pada perintah praktikum 8 buatkan beberapa endpoints
GET : localhost:8001/api/products/
GET : localhost:8001/api/products/:id
POST : localhost:8001/api/products/
PUT : localhost:8001/api/products/:id
DELETE: localhost:8001/api/products/:id
4. Pastikan memiliki file dengan struktur sebagai berikut.
controllers/[products.controller.js](#)
routes/[products.routes.js](#)
models/[products.model.js](#)
5. Test API dengan menggunakan **POSTMAN**

B. Menambahkan Proteksi API (Simple - Bearer Method)

1. Buat sebuah folder bernama middlewares, kemudian buat didalamnya sebuah file dengan nama [auth.middleware.js](#) dengan kode program seperti dibawah ini

```
export const authBearer = (req, res, next) => {
    const authHeader = req.headers.authorization;

    // Tidak ada Authorization
    if (!authHeader) {
        return res.status(401).json({ message: "No authorization header" });
    }

    // Harus Bearer
    if (!authHeader.startsWith("Bearer ")) {
        return res.status(401).json({ message: "Bearer token required" });
    }

    // Ambil token
    const token = authHeader.split(" ")[1];

    // Token yang benar (misal hardcode)
    const VALID_TOKEN = "12345TOKENRAHASIA";

    if (token !== VALID_TOKEN) {
        return res.status(403).json({ message: "Invalid token" });
    }

    next();
};
```

2. Pada file [product.routes.js](#) panggil [auth.middleware.js](#) `import { authBearer } from "../middleware/auth.middleware.js"`
3. Lalu tambahkan authBearer ke endpoints yang perlu di proteksi
`router.post("/", authBearer, createProduct); router.put("/:id", authBearer, updateProduct); router.delete("/:id", authBearer, deleteProduct);`
4. Gunakan POSTMAN untuk akses 3 endpoints ini dengan menambahkan bearer
12345TOKENRAHASIA

F. Github + Visual Code

- Buat proyek di Github dengan nama **Latihan9**

```
git init
```

```
git add .
```

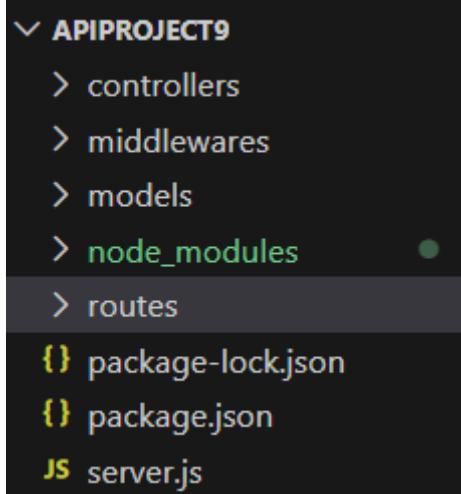
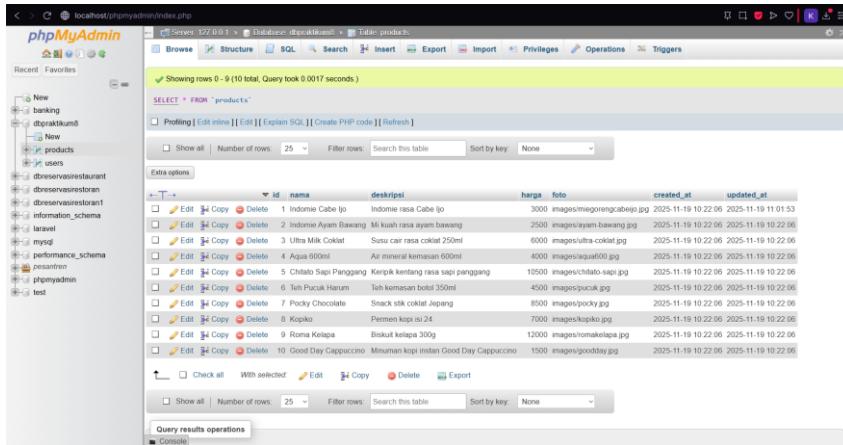
```
git commit -m "first commit"
```

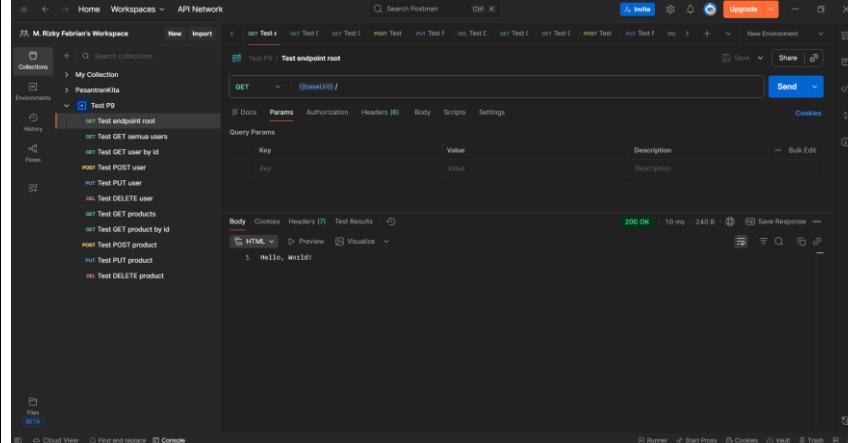
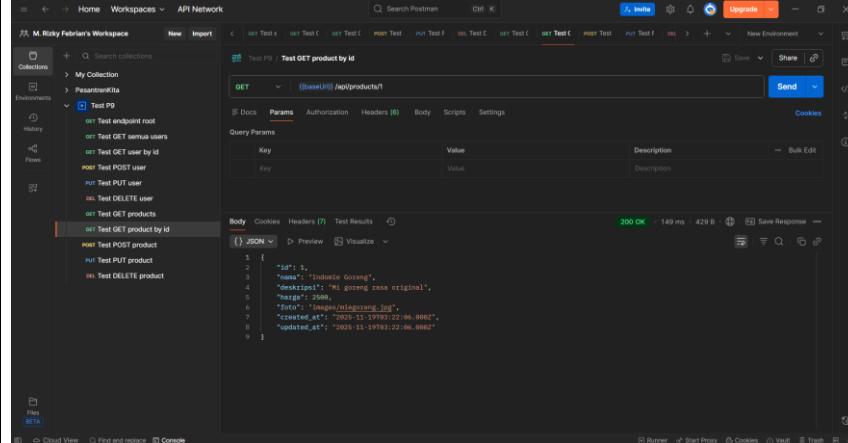
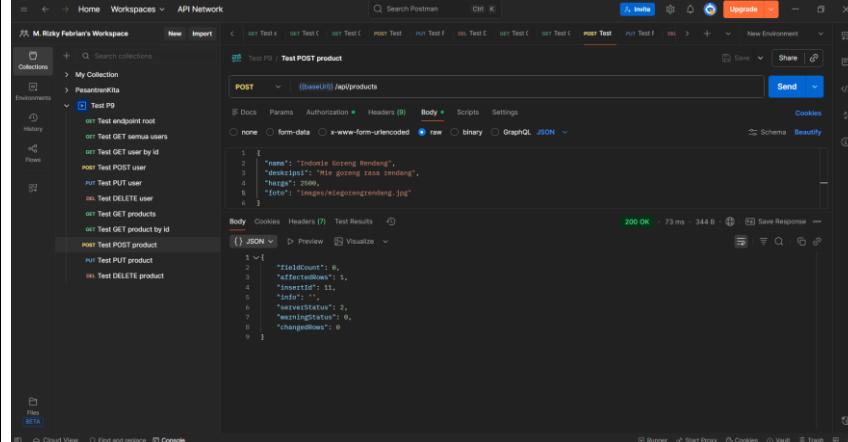
```
git branch -M main
```

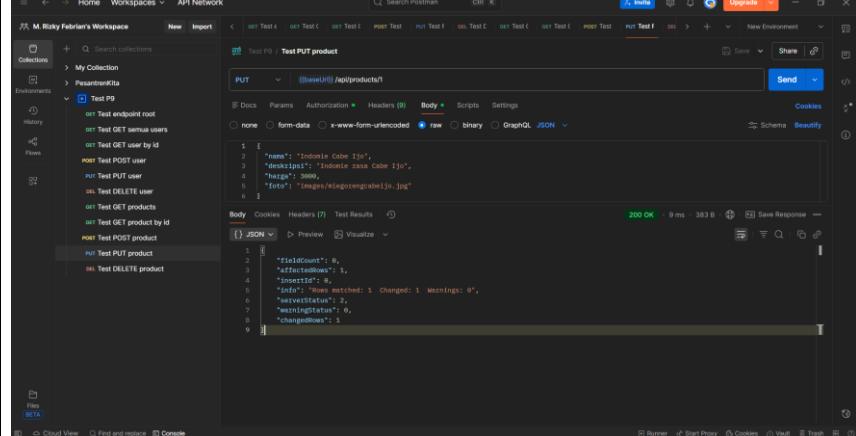
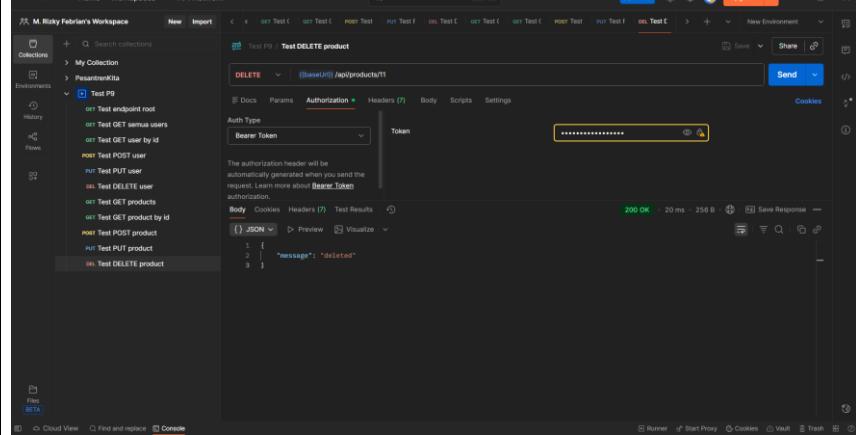
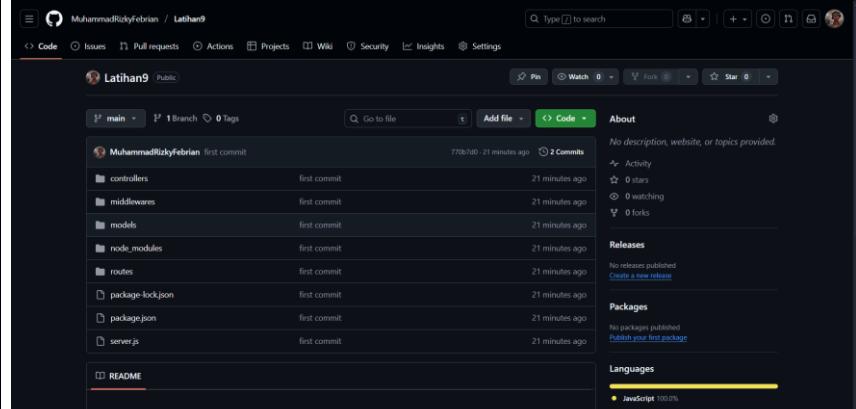
```
git remote add origin https://github.com/agunghakase/Latihan9.git
```

```
git push -u origin main
```

Hasil Pengeraan

No.	Instruksi	Screenshot	Kendala /Saran																																																																																								
A.	Menyediakan API Enpoints																																																																																										
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2.	Step 2	 <table border="1"> <thead> <tr> <th></th> <th>id</th> <th>nama</th> <th>deskripsi</th> <th>harga</th> <th>foto</th> <th>created_at</th> <th>updated_at</th> </tr> </thead> <tbody> <tr> <td></td> <td>1</td> <td>Indomie Cabe Ijo</td> <td>Indomie rasa Cabe Ijo</td> <td>3000</td> <td></td> <td>2025-11-19 10:22:06</td> <td>2025-11-19 11:01:53</td> </tr> <tr> <td></td> <td>2</td> <td>Indomie Ayam Bawang</td> <td>Mi khas rasa ayam bawang</td> <td>2500</td> <td></td> <td>2025-11-19 10:22:06</td> <td>2025-11-19 10:22:06</td> </tr> <tr> <td></td> <td>3</td> <td>Ultra Milk Coklat</td> <td>Susu cair rasa coklat 250ml</td> <td>6000</td> <td></td> <td>2025-11-19 10:22:06</td> <td>2025-11-19 10:22:06</td> </tr> <tr> <td></td> <td>4</td> <td>Aqua 600ml</td> <td>Air mineral kemasan 600ml</td> <td>4000</td> <td></td> <td>2025-11-19 10:22:06</td> <td>2025-11-19 10:22:06</td> </tr> <tr> <td></td> <td>5</td> <td>Chitato Sapi Panggang</td> <td>Keripik kerang rasa sapi panggang</td> <td>10500</td> <td></td> <td>2025-11-19 10:22:06</td> <td>2025-11-19 10:22:06</td> </tr> <tr> <td></td> <td>6</td> <td>Teh Pucuk Harum</td> <td>Teh kemasan botol 350ml</td> <td>4500</td> <td></td> <td>2025-11-19 10:22:06</td> <td>2025-11-19 10:22:06</td> </tr> <tr> <td></td> <td>7</td> <td>Pocky Chocolate</td> <td>Snack stik coklat Jepang</td> <td>8500</td> <td></td> <td>2025-11-19 10:22:06</td> <td>2025-11-19 10:22:06</td> </tr> <tr> <td></td> <td>8</td> <td>Kopiko</td> <td>Pernas kops isi 24</td> <td>7000</td> <td></td> <td>2025-11-19 10:22:06</td> <td>2025-11-19 10:22:06</td> </tr> <tr> <td></td> <td>9</td> <td>Roma Kelapa</td> <td>Biskuit kelapa 300g</td> <td>12000</td> <td></td> <td>2025-11-19 10:22:06</td> <td>2025-11-19 10:22:06</td> </tr> <tr> <td></td> <td>10</td> <td>Good Day Cappuccino</td> <td>Minuman kopi instant Good Day Cappuccino</td> <td>15000</td> <td></td> <td>2025-11-19 10:22:06</td> <td>2025-11-19 10:22:06</td> </tr> </tbody> </table>		id	nama	deskripsi	harga	foto	created_at	updated_at		1	Indomie Cabe Ijo	Indomie rasa Cabe Ijo	3000		2025-11-19 10:22:06	2025-11-19 11:01:53		2	Indomie Ayam Bawang	Mi khas rasa ayam bawang	2500		2025-11-19 10:22:06	2025-11-19 10:22:06		3	Ultra Milk Coklat	Susu cair rasa coklat 250ml	6000		2025-11-19 10:22:06	2025-11-19 10:22:06		4	Aqua 600ml	Air mineral kemasan 600ml	4000		2025-11-19 10:22:06	2025-11-19 10:22:06		5	Chitato Sapi Panggang	Keripik kerang rasa sapi panggang	10500		2025-11-19 10:22:06	2025-11-19 10:22:06		6	Teh Pucuk Harum	Teh kemasan botol 350ml	4500		2025-11-19 10:22:06	2025-11-19 10:22:06		7	Pocky Chocolate	Snack stik coklat Jepang	8500		2025-11-19 10:22:06	2025-11-19 10:22:06		8	Kopiko	Pernas kops isi 24	7000		2025-11-19 10:22:06	2025-11-19 10:22:06		9	Roma Kelapa	Biskuit kelapa 300g	12000		2025-11-19 10:22:06	2025-11-19 10:22:06		10	Good Day Cappuccino	Minuman kopi instant Good Day Cappuccino	15000		2025-11-19 10:22:06	2025-11-19 10:22:06	
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3.	Test endpoint root	 <p>Test P9 - Test endpoint root</p> <p>GET <code>(baseUrl)/</code></p> <p>200 OK · 10 ms · 240 B · Save Response</p> <pre>1 Hello, world!</pre>	
4.	Test GET products	 <p>Test P9 - Test GET product by id</p> <p>GET <code>(baseUrl)/api/products/1</code></p> <p>200 OK · 149 ms · 429 B · Save Response</p> <pre>1 { "id": 1, "name": "Indole Gorang", "deskripsi": "Mi goreng case original", "height": 200, "width": 150, "image": "https://image.pollinations.ai/p/2025-11-15T08:22:06.986Z", "created_at": "2025-11-15T08:22:06.986Z", "updated_at": "2025-11-15T08:22:06.986Z" }</pre>	
5.	Test POST product	 <p>Test P9 - Test POST product</p> <p>POST <code>(baseUrl)/api/products</code></p> <p>200 OK · 73 ms · 344 B · Save Response</p> <pre>1 { "name": "Indole Gorang Rendang", "deskripsi": "Mi goreng rasa rendang", "height": 200, "width": 150, "image": "https://image.pollinations.ai/p/2025-11-15T08:22:06.986Z" }</pre>	

6.	Test PUT product	 <p>The screenshot shows a POSTMAN interface with a collection named "Test P9". A PUT request is made to <code>(baseUrl)/api/products/1</code>. The body contains the following JSON:</p> <pre> 1 { 2 "name": "Indomie Cabe Ijo", 3 "deskripsi": "Indomie rasa Cabe Ijo", 4 "harga": 3000, 5 "foto": "images/miegocabeijoin.jpg" 6 </pre> <p>The response status is 200 OK, with a response time of 9 ms and a size of 363 B. The response body is:</p> <pre> 1 { 2 "id": 1, 3 "affectedRows": 1, 4 "insertId": 6, 5 "info": "Rows matched: 1 Changed: 1 Warnings: 0", 6 "serverStatus": 2, 7 "warningStatus": 0, 8 "changeRows": 1 9 </pre>	
7.	Test DELETE product	 <p>The screenshot shows a POSTMAN interface with a collection named "Test P9". A DELETE request is made to <code>(baseUrl)/api/products/1</code>. The response status is 200 OK, with a response time of 20 ms and a size of 256 B. The response body is:</p> <pre> 1 { 2 "message": "deleted" 3 4 5 </pre>	
B.	Github dan Viscode		
1.	Github	 <p>The screenshot shows a GitHub repository page for "Lathian9". It displays a single commit from "MuhammadRickyFebrian" with the message "first commit". The commit was made 770bago (21 minutes ago) and has 2 commits. The repository has 1 branch and 0 tags. It includes sections for Code, Issues, Pull requests, Actions, Projects, Wiki, Security, Insights, and Settings. The code tab shows files like main.js, controllers, middlewares, models, node_modules, routes, package-lock.json, package.json, and server.js, all with first commit status. The README file is also present.</p>	