LAPORAN LATIHAN PRAKTIKUM KE-10
PEMROGRAMAN BERBASIS WEB
KELAS A

Disusun Untuk Memenuhi Tugas Mata Kuliah Prak. Pemrograman Berbasis Web

Disusun oleh:

Arsya Yan Duribta 4522210117

Dosen Pengampu:

Adi Wahyu Pribadi, S.Si., M.Kom.

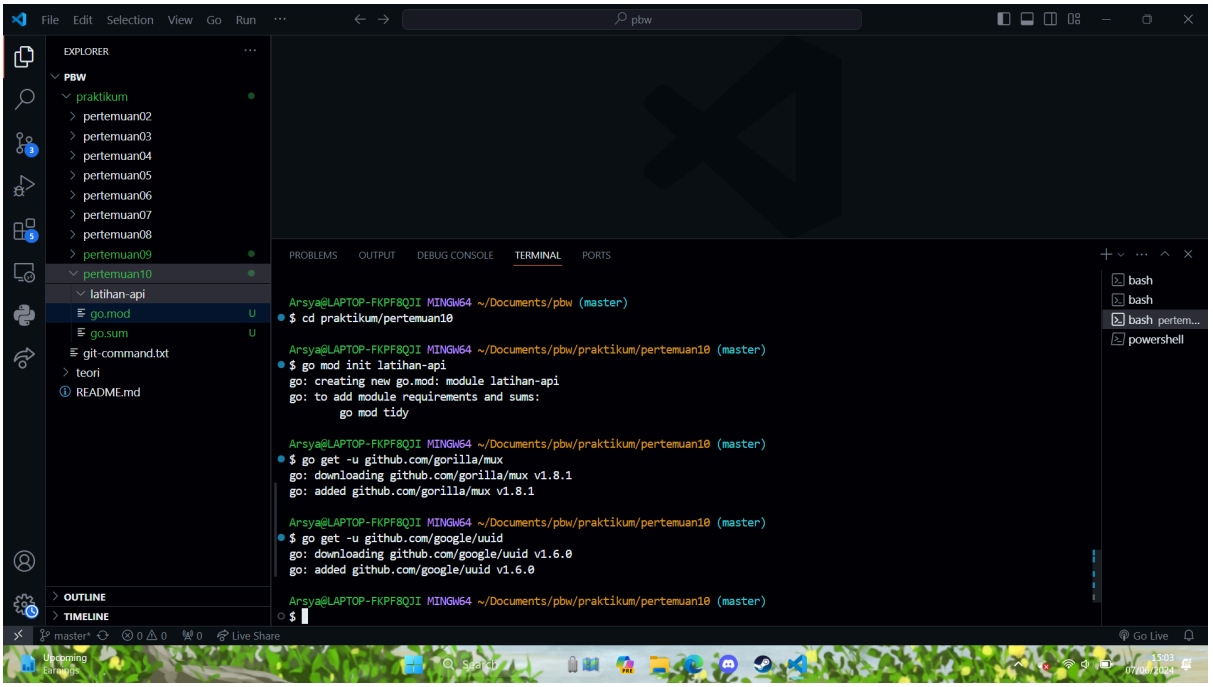
Program Studi Teknik Informatika

Fakultas Teknik Universitas Pancasila

2023/2024

Link Repository Github:
https://github.com/Arsyayd11/pbw/tree/master/praktikum/pertemuan10

Latihan API:



Pertanyaan: JELASKAN KEGUNAAN 2 LIBRARY DIATAS!!

1. github.com/gorilla/mux

   Library mux dari Gorilla merupakan sebuah HTTP request router dan dispatcher untuk bahasa pemrograman Go. Kegunaan utamanya adalah untuk membantu dalam menangani routing di aplikasi web. Dengan mux, kita bisa menentukan pola URL yang lebih kompleks dan mengarahkan permintaan HTTP ke handler yang tepat. Kegunaan lainnya:

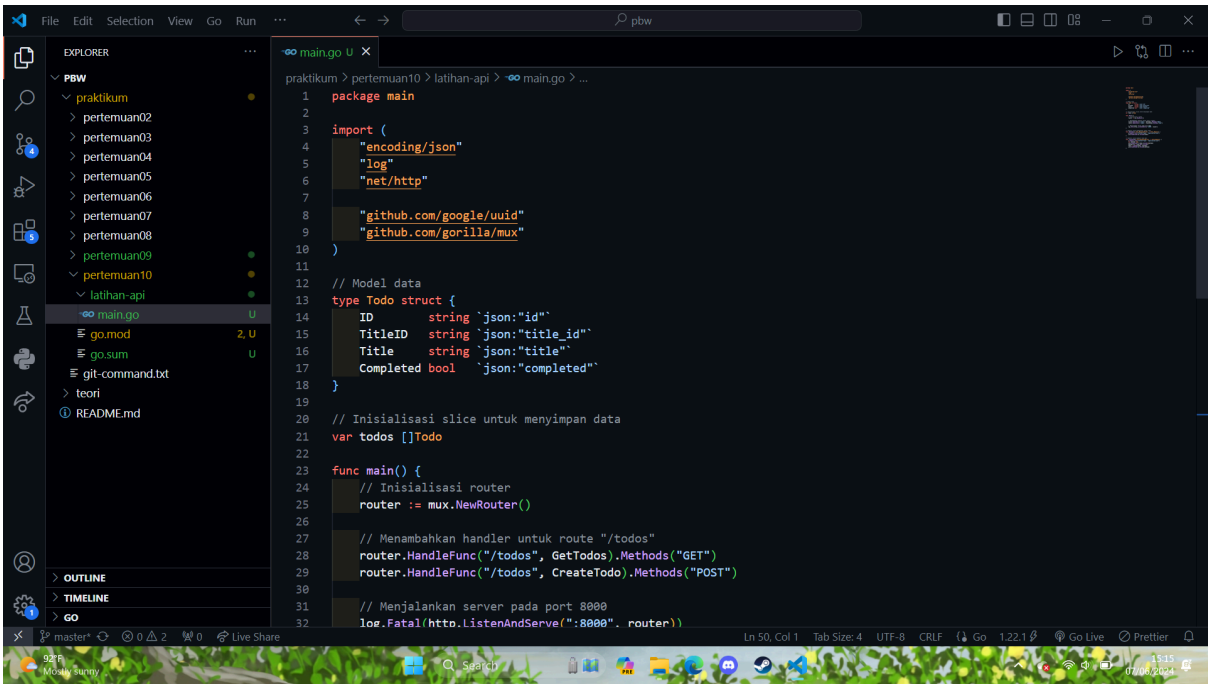
   - Routing yang lebih fleksibel: mux memungkinkan untuk menentukan rute yang mendukung parameter, query string, dan metode HTTP yang berbeda (GET, POST, PUT, DELETE, dll).
   - Named Parameters: Menangkap bagian dari URL sebagai parameter dan menggunakannya dalam handler.
   - Host Matching: Dapat memetakan rute berdasarkan nama host, yang memungkinkan aplikasi yang sama melayani beberapa domain.
   - Route Priorities: Mendukung urutan penentuan rute sehingga bisa mengatur prioritas rute mana yang harus diproses terlebih dahulu.

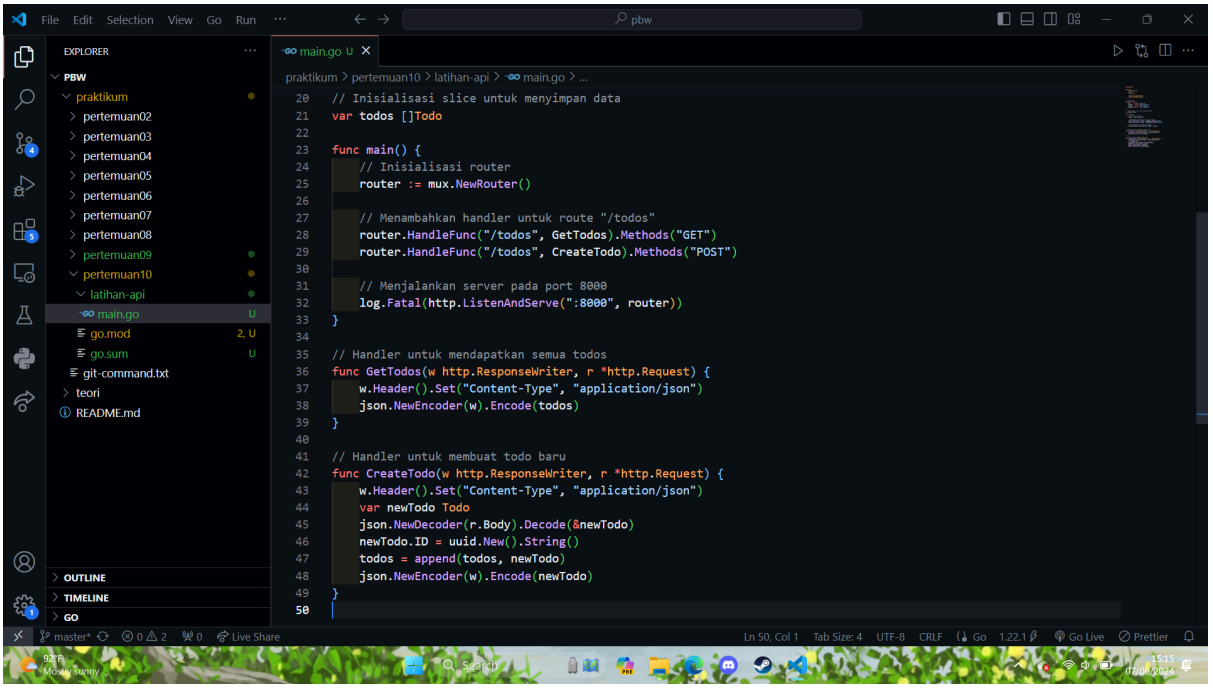
2. github.com/google/uuid

   Library uuid dari Google digunakan untuk menghasilkan Universally Unique Identifier (UUID). UUID adalah 128-bit number yang digunakan untuk mengidentifikasi informasi secara unik di seluruh sistem. UUID sangat berguna untuk membuat ID unik yang hampir tidak mungkin untuk diduplikasi. Kegunaan lainnya:

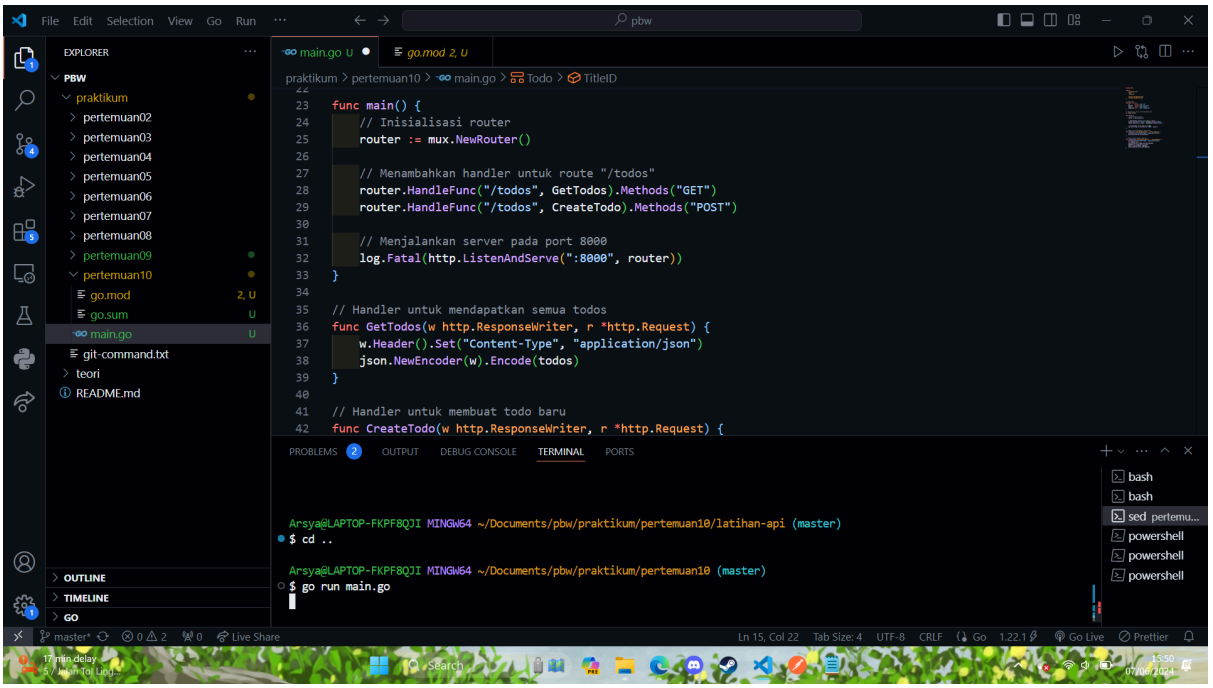
- Unique Identification: UUID sangat ideal untuk digunakan sebagai kunci unik di basis data atau sebagai ID untuk objek dalam sistem terdistribusi.
- Kombinasi Waktu dan Ruang: UUID menggabungkan informasi dari waktu, ruang (seperti alamat MAC), dan random number untuk menjamin keunikan.
- Versi UUID: Mendukung beberapa versi UUID, termasuk versi 1 (berdasarkan timestamp dan alamat MAC) dan versi 4 (berbasis random number).

Source Code:

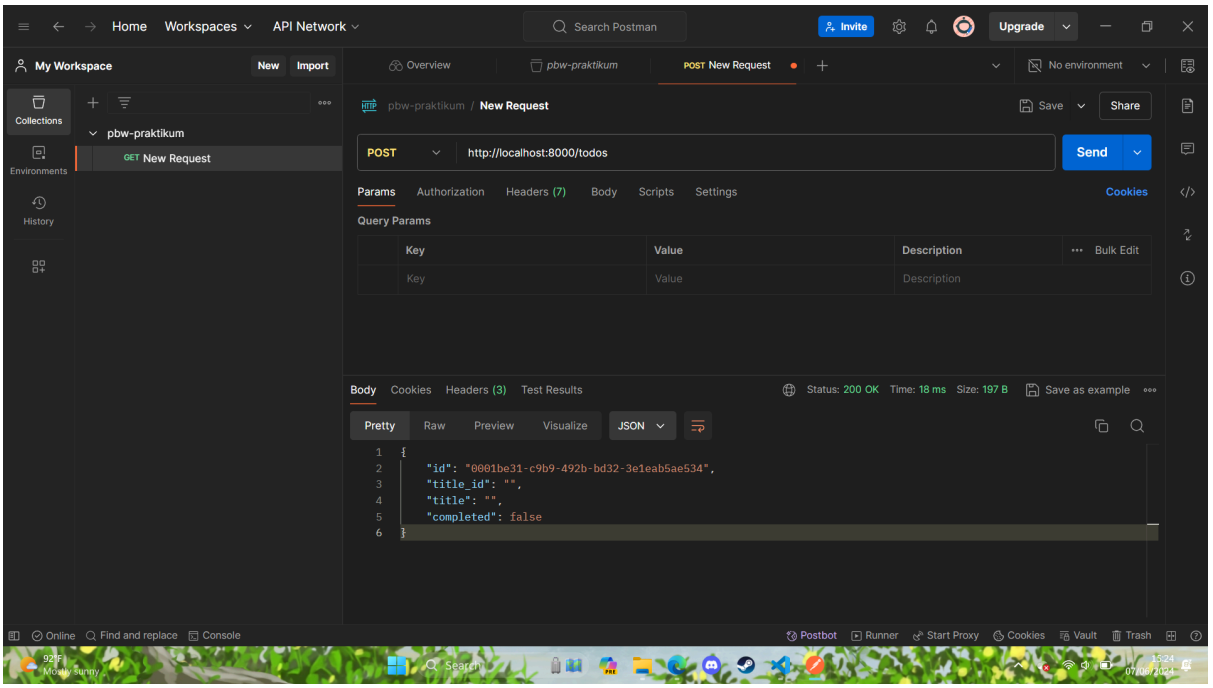


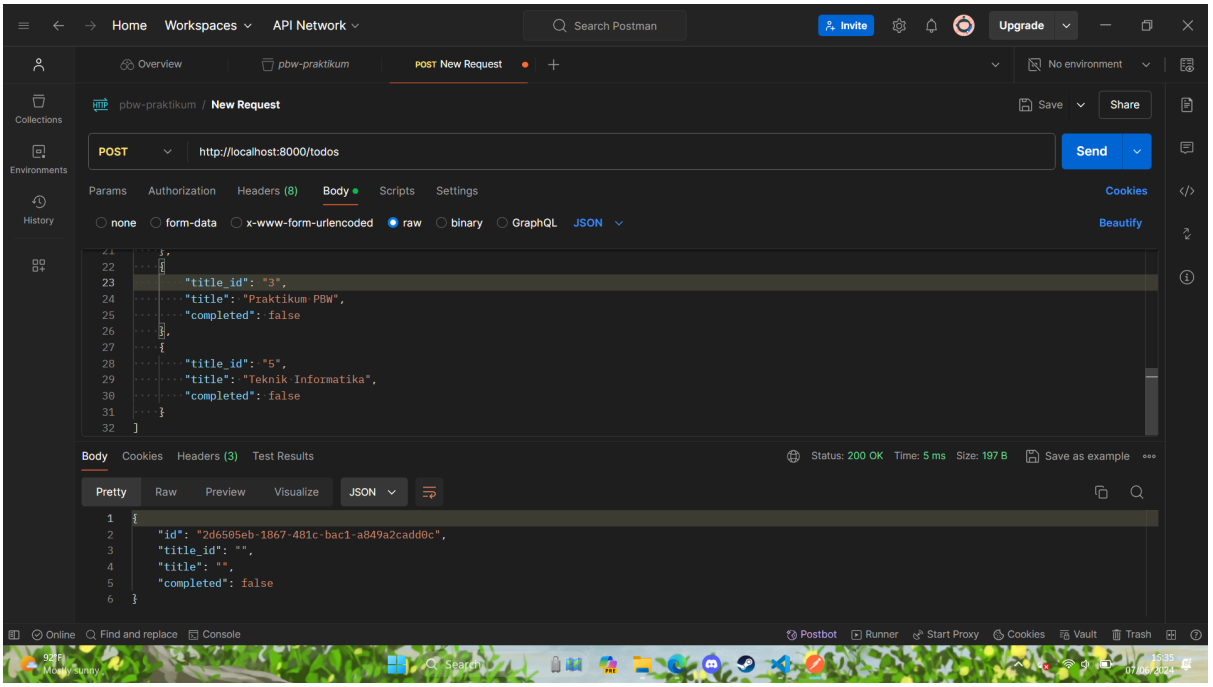


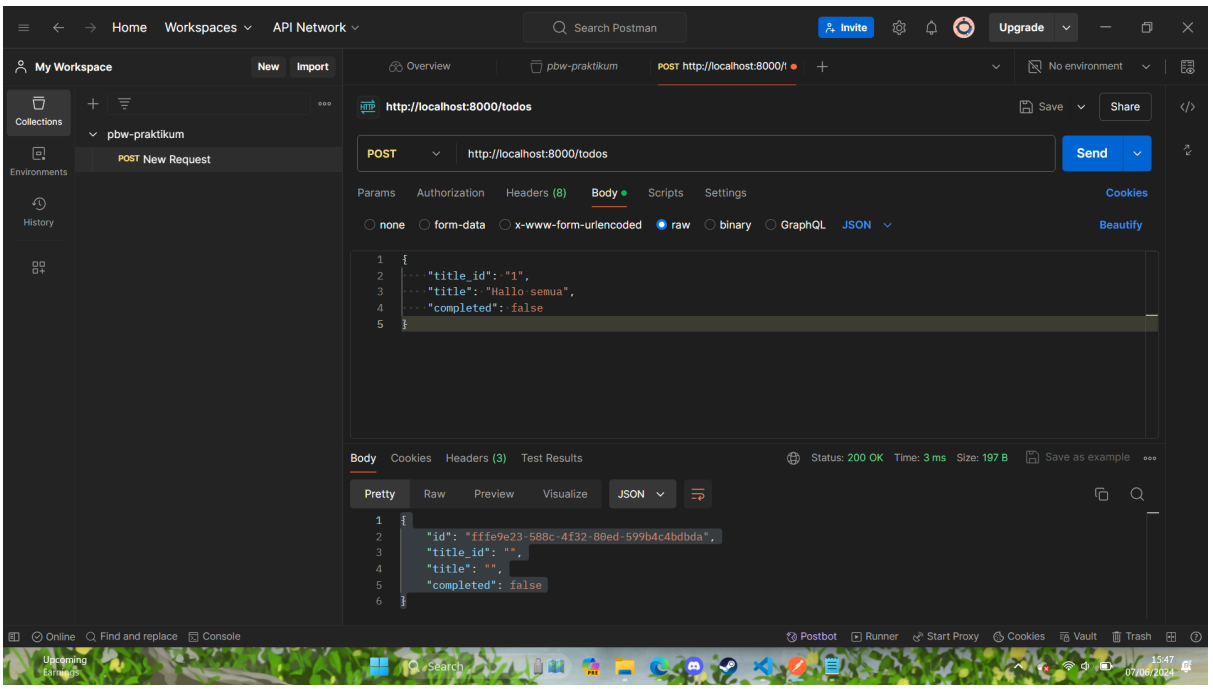
Run code menggunakan terminal:

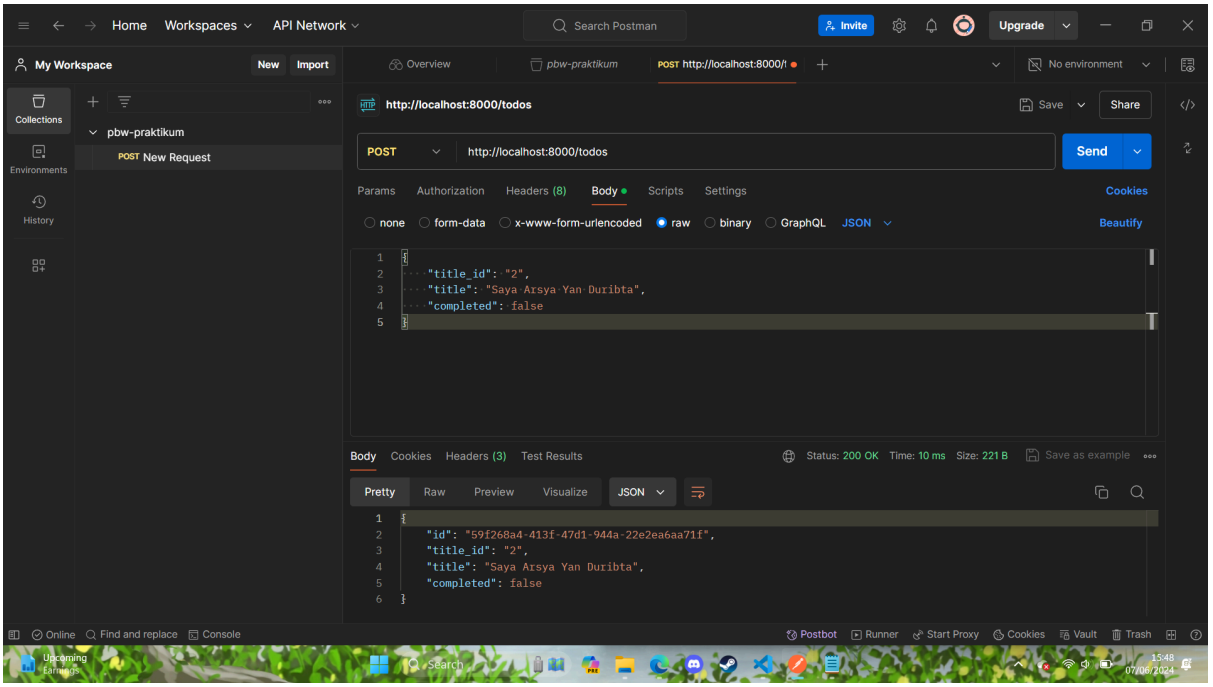


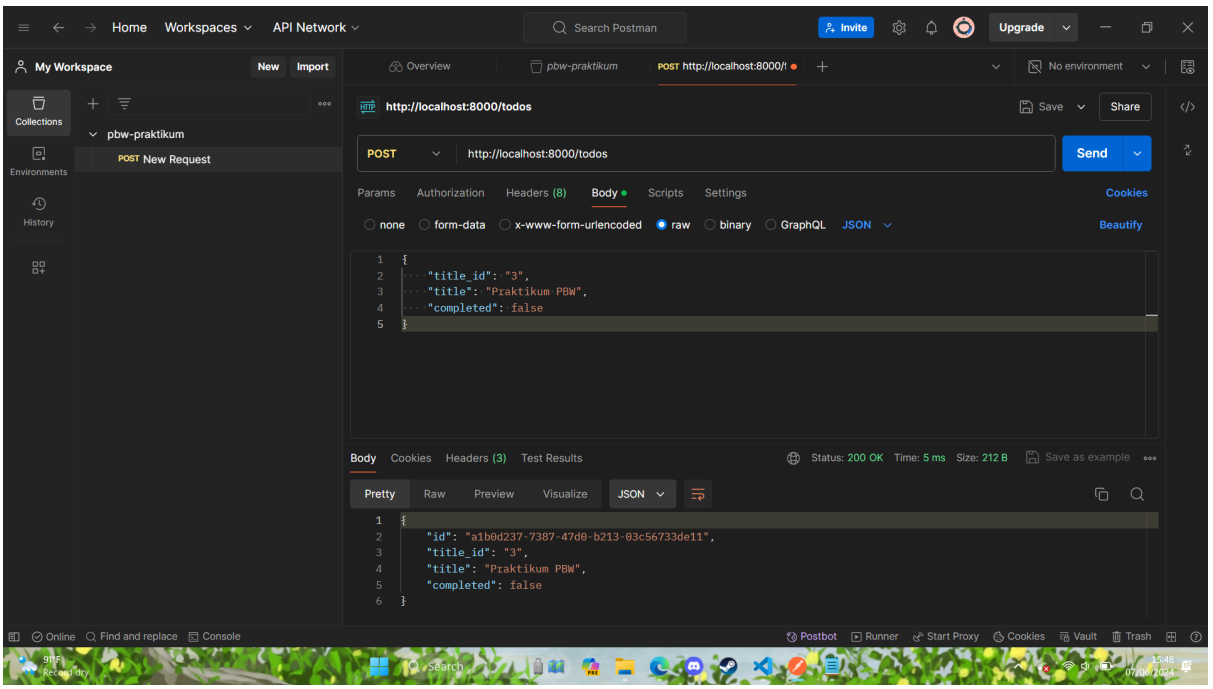
Tampilan Postman:

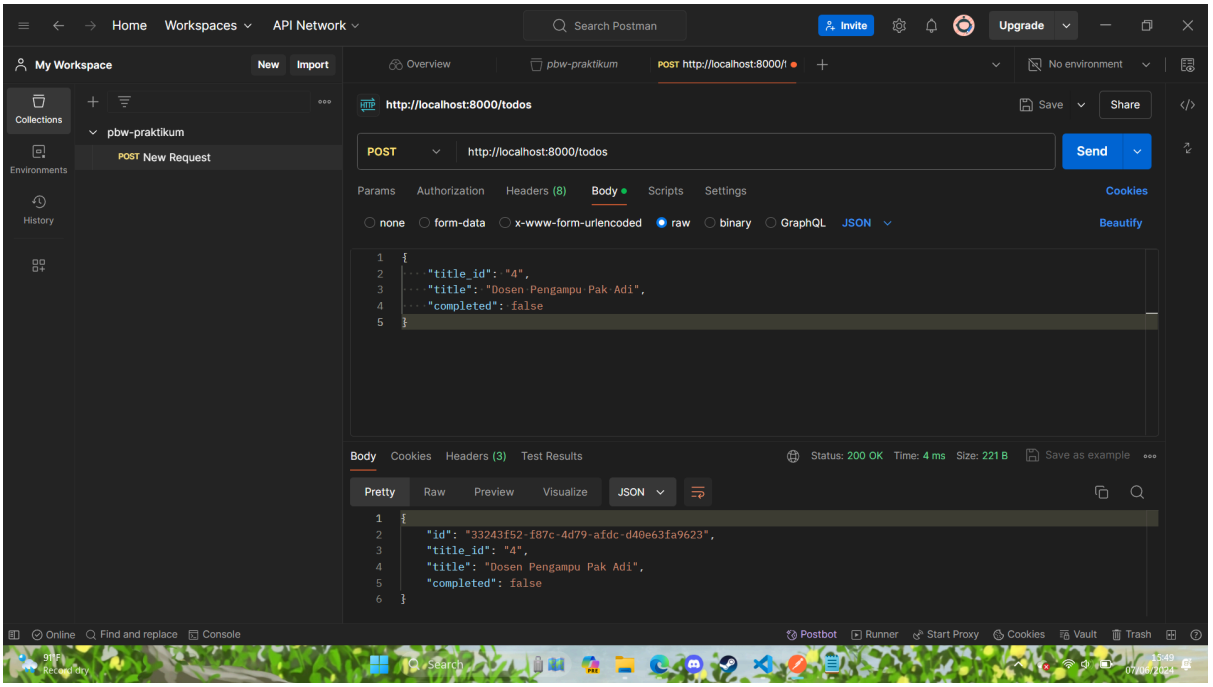


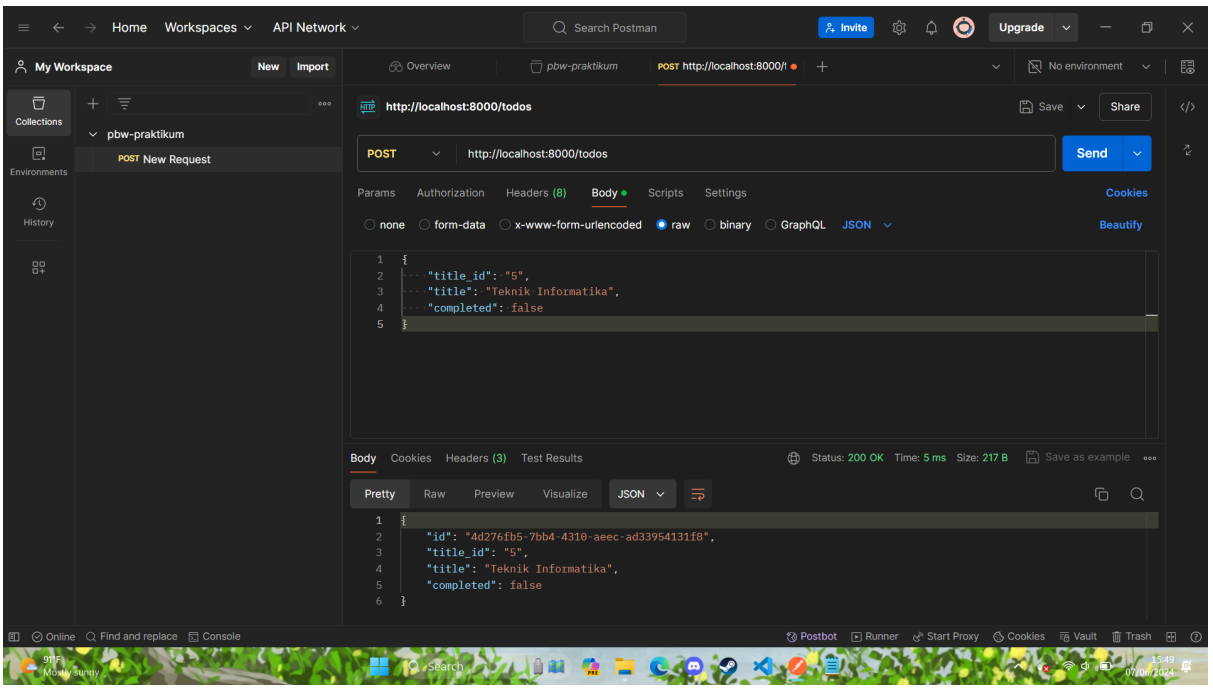

Home
Workspaces
API Network
Search Postman
Invite
Upgrade
Overview
pbw-praktikum
POST New Request
No environment
pbw-praktikum / New Request
Save
Share
POST
http://localhost:8000/todos
Send
Params
Authorization
Headers (8)
Body
Scripts
Settings
Cookies
none
form-data
x-www-form-urlencoded
raw
binary
GraphQL
JSON
Beautify
{
"title_id": "3",
"title": "Praktikum PBW",
"completed": false
},
{
"title_id": "5",
"title": "Teknik Informatika",
"completed": false
}
]
Body
Cookies
Headers (3)
Test Results
Status: 200 OK
Time: 5 ms
Size: 197 B
Save as example
Pretty
Raw
Preview
Visualize
JSON
{
"id": "2d6505eb-1867-481c-bac1-a849a2cadd0c",
"title_id": "",
"title": "",
"completed": false
}
Online
Find and replace
Console
Postbot
Runner
Start Proxy
Cookies
Vault
Trash
Search

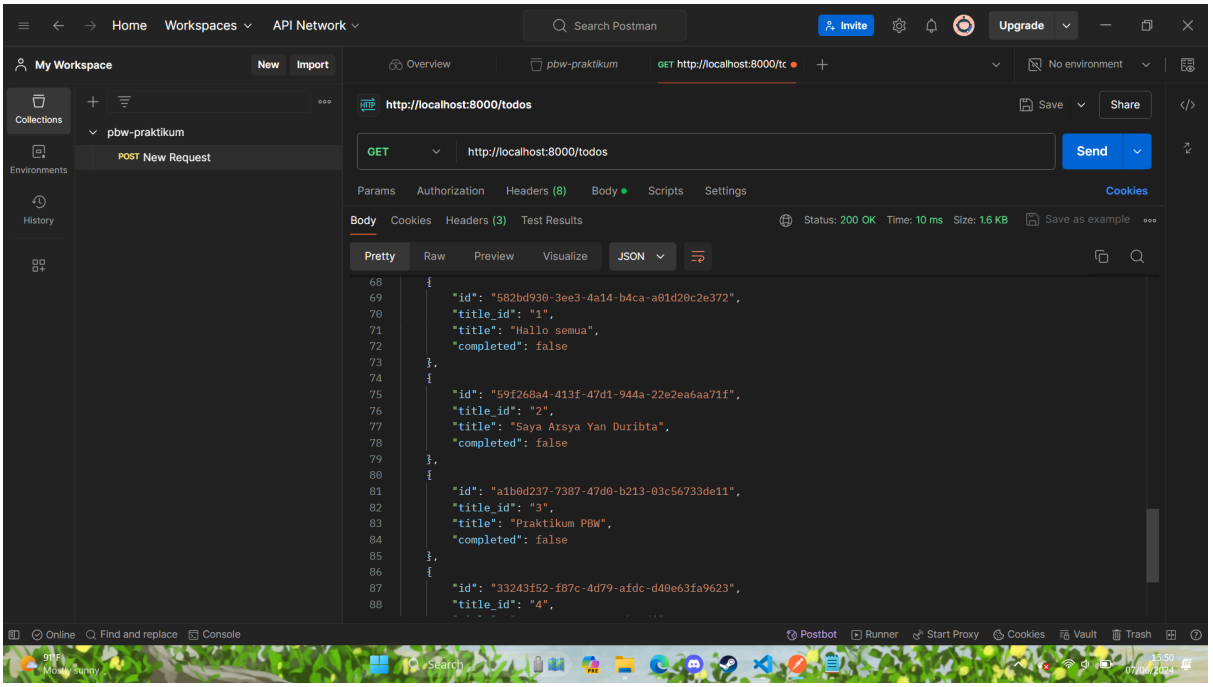

Home
Workspaces
API Network
Search Postman
Invite
Upgrade
My Workspace
New
Import
Collections
Environments
History
pbw-praktikum
POST New Request
Overview
pbw-praktikum
POST http://localhost:8000/t
No environment
http://localhost:8000/todos
Save
Share
POST
http://localhost:8000/todos
Send
Params
Authorization
Headers (8)
Body
Scripts
Settings
Cookies
none
form-data
x-www-form-urlencoded
raw
binary
GraphQL
JSON
Beautify
{
"title_id": "1",
"title": "Hallo semua",
"completed": false
}
Body
Cookies
Headers (3)
Test Results
Status: 200 OK
Time: 3 ms
Size: 197 B
Save as example
Pretty
Raw
Preview
Visualize
JSON
{
"id": "fffe9e23-588c-4f32-80ed-599b4c4bdbda",
"title_id": "",
"title": "",
"completed": false
}
Online
Find and replace
Console
Postbot
Runner
Start Proxy
Cookies
Vault
Trash
Search

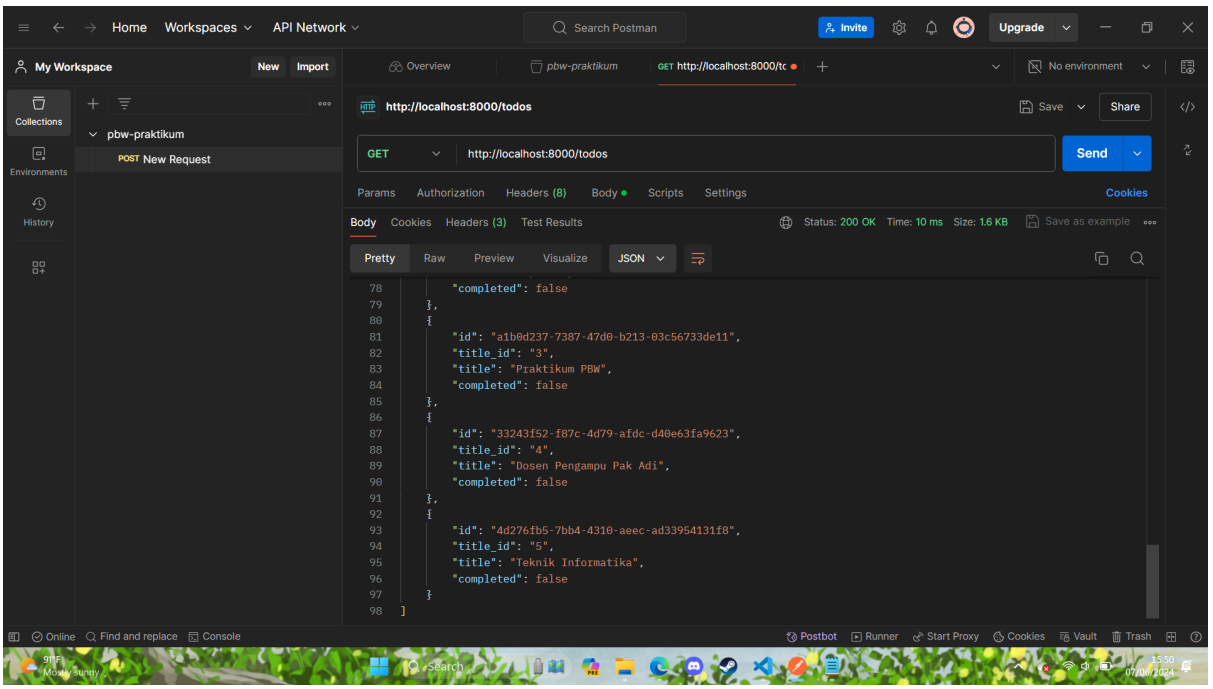

Home
Workspaces
API Network
Search Postman
Invite
Upgrade
My Workspace
New
Import
Collections
Environments
History
pbw-praktikum
POST New Request
Overview
pbw-praktikum
POST http://localhost:8000/t
No environment
http://localhost:8000/todos
Save
Share
POST
http://localhost:8000/todos
Send
Params
Authorization
Headers (8)
Body
Scripts
Settings
Cookies
none
form-data
x-www-form-urlencoded
raw
binary
GraphQL
JSON
Beautify
{
"title_id": "2",
"title": "Saya Arsya Yan Duribta",
"completed": false
}
Body
Cookies
Headers (3)
Test Results
Status: 200 OK
Time: 10 ms
Size: 221 B
Save as example
Pretty
Raw
Preview
Visualize
JSON
{
"id": "59f268a4-413f-47d1-944a-22e2ea6aa71f",
"title_id": "2",
"title": "Saya Arsya Yan Duribta",
"completed": false
}
Online
Find and replace
Console
Postbot
Runner
Start Proxy
Cookies
Vault
Trash
Search
15:48
07/06/2024


Home
Workspaces
API Network
Search Postman
Invite
Upgrade
My Workspace
New
Import
Collections
Environments
History
pbw-praktikum
POST New Request
Overview
pbw-praktikum
POST http://localhost:8000/t
No environment
http://localhost:8000/todos
Save
Share
POST
http://localhost:8000/todos
Send
Params
Authorization
Headers (8)
Body
Scripts
Settings
Cookies
none
form-data
x-www-form-urlencoded
raw
binary
GraphQL
JSON
Beautify
{
"title_id": "3",
"title": "Praktikum PBW",
"completed": false
}
Body
Cookies
Headers (3)
Test Results
Status: 200 OK
Time: 5 ms
Size: 212 B
Save as example
Pretty
Raw
Preview
Visualize
JSON
{
"id": "a1b0d237-7387-47d0-b213-03c56733de11",
"title_id": "3",
"title": "Praktikum PBW",
"completed": false
}
Online
Find and replace
Console
Postbot
Runner
Start Proxy
Cookies
Vault
Trash
Search
15:48
07/06/2024

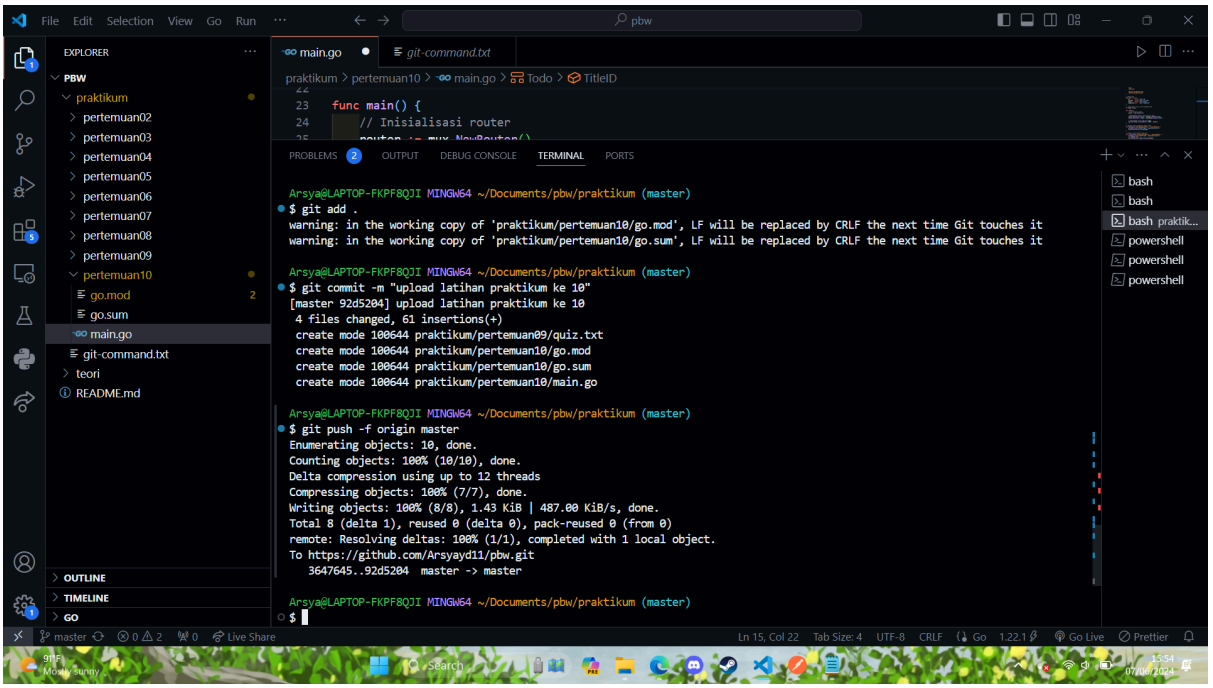

Home
Workspaces
API Network
Search Postman
Invite
Upgrade
My Workspace
New
Import
Collections
Environments
History
pbw-praktikum
POST New Request
Overview
pbw-praktikum
POST http://localhost:8000/t
No environment
http://localhost:8000/todos
Save
Share
POST
http://localhost:8000/todos
Send
Params
Authorization
Headers (8)
Body
Scripts
Settings
Cookies
none
form-data
x-www-form-urlencoded
raw
binary
GraphQL
JSON
Beautify
{
"title_id": "4",
"title": "Dosen Pengampu Pak Adi",
"completed": false
}
Body
Cookies
Headers (3)
Test Results
Status: 200 OK
Time: 4 ms
Size: 221 B
Save as example
Pretty
Raw
Preview
Visualize
JSON
{
"id": "33243f52-f87c-4d79-afdc-d40e63fa9623",
"title_id": "4",
"title": "Dosen Pengampu Pak Adi",
"completed": false
}
Online
Find and replace
Console
Postbot
Runner
Start Proxy
Cookies
Vault
Trash
Search


Home
Workspaces
API Network
Search Postman
Invite
Upgrade
My Workspace
New
Import
Collections
Environments
History
pbw-praktikum
POST New Request
Overview
pbw-praktikum
POST http://localhost:8000/t
No environment
http://localhost:8000/todos
Save
Share
POST
http://localhost:8000/todos
Send
Params
Authorization
Headers (8)
Body
Scripts
Settings
Cookies
none
form-data
x-www-form-urlencoded
raw
binary
GraphQL
JSON
Beautify
{
"title_id": "5",
"title": "Teknik Informatika",
"completed": false
}
Body
Cookies
Headers (3)
Test Results
Status: 200 OK
Time: 5 ms
Size: 217 B
Save as example
Pretty
Raw
Preview
Visualize
JSON
{
"id": "4d276fb5-7bb4-4310-aeec-ad33954131f8",
"title_id": "5",
"title": "Teknik Informatika",
"completed": false
}
Online
Find and replace
Console
Postbot
Runner
Start Proxy
Cookies
Vault
Trash
Search


Home
Workspaces
API Network
Search Postman
Invite
Upgrade
My Workspace
New
Import
Collections
Environments
History
pbw-praktikum
POST New Request
Overview
pbw-praktikum
GET http://localhost:8000/tc
No environment
http://localhost:8000/todos
Save
Share
GET
http://localhost:8000/todos
Send
Params
Authorization
Headers (8)
Body
Scripts
Settings
Cookies
Body
Cookies
Headers (3)
Test Results
Status: 200 OK
Time: 10 ms
Size: 1.6 KB
Save as example
Pretty
Raw
Preview
Visualize
JSON
{
"id": "582bd930-3ee3-4a14-b4ca-a01d20c2e372",
"title_id": "1",
"title": "Hallo semua",
"completed": false
},
{
"id": "59f268a4-413f-47d1-944a-22e2ea6aa71f",
"title_id": "2",
"title": "Saya Arsya Yan Duribta",
"completed": false
},
{
"id": "a1b0d237-7387-47d0-b213-03c56733de11",
"title_id": "3",
"title": "Praktikum PBW",
"completed": false
},
{
"id": "33243f52-f87c-4d79-afdc-d40e63fa9623",
"title_id": "4",
Online
Find and replace
Console
Postbot
Runner
Start Proxy
Cookies
Vault
Trash


Home
Workspaces
API Network
Search Postman
Invite
Upgrade
My Workspace
New
Import
Collections
Environments
History
pbw-praktikum
POST New Request
Overview
pbw-praktikum
GET http://localhost:8000/tc
No environment
http://localhost:8000/todos
Save
Share
GET
http://localhost:8000/todos
Send
Params
Authorization
Headers (8)
Body
Scripts
Settings
Cookies
Body
Cookies
Headers (3)
Test Results
Status: 200 OK
Time: 10 ms
Size: 1.6 KB
Save as example
Pretty
Raw
Preview
Visualize
JSON
"completed": false
},
{
"id": "a1b0d237-7387-47d0-b213-03c56733de11",
"title_id": "3",
"title": "Praktikum PBW",
"completed": false
},
{
"id": "33243f52-f87c-4d79-afdc-d40e63fa9623",
"title_id": "4",
"title": "Dosen Pengampu Pak Adi",
"completed": false
},
{
"id": "4d276fb5-7bb4-4310-aeec-ad33954131f8",
"title_id": "5",
"title": "Teknik Informatika",
"completed": false
}
]
Online
Find and replace
Console
Postbot
Runner
Start Proxy
Cookies
Vault
Trash

Upload Ke Git



Kesimpulan

Dalam praktikum Go latihan API, library github.com/gorilla/mux digunakan untuk menangani routing HTTP yang fleksibel dan memungkinkan pengaturan endpoint dengan parameter dan metode yang berbeda, sementara library github.com/google/uuid digunakan untuk menghasilkan UUID unik yang dapat digunakan sebagai identifier dalam endpoint API, seperti ID untuk resource yang dibuat. Kombinasi kedua library ini memungkinkan pembuatan API yang robust, dengan routing yang terstruktur dan identifier yang unik, meningkatkan efisiensi dari aplikasi web yang dibangun.

Link Repository Github:

https://github.com/Arsyayd11/pbw/tree/master/praktikum/pertemuan10