REST API VANIA

PENGEMBANGAN APLIKASI MOBILE LANJUT



ADJANI PRASANA 5210411244

PROGRAM STUDI INFORMATIKA **FAKULTAS SAINS & TEKNOLOGI** UNIVERSITAS TEKNOLOGI YOGYAKARTA **YOGYAKARTA** 2024

Langkah-langkah Instalasi Framework Vania:

1. Instalasi Framework Vania

Untuk menginstal framework Vania, jalankan perintah berikut pada Command Line di lokasi direktori yang diinginkan:

dart pub global activate vania_cli

2. Membuat Proyek Baru Vania

Untuk membuat proyek baru, gunakan perintah di bawah ini pada direktori pilihan Anda:

vania create pamladjani

3. Menjalankan Framework Vania

Gunakan perintah berikut untuk menjalankan proyek Vania:

vania serve

Setelah proyek dasar berhasil dibuat, Anda dapat menghapus beberapa komponen bawaan yang dirasa tidak diperlukan.

Konfigurasi Database

Atur konfigurasi database dengan mengedit file .env sesuai kebutuhan. Contoh konfigurasi database adalah sebagai berikut:

DB_CONNECTION=mysql

DB_HOST=localhost

DB_PORT=3306

DB_DATABASE=order_entry

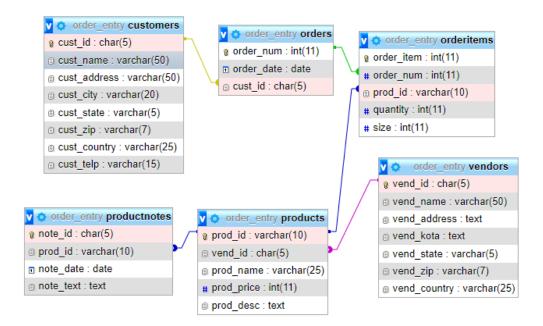
DB_USERNAME=project

DB_PASSWORD=pamladjani

DB_SSL_MODE=false

DB_POOL=false

DB_POOL_SIZE=2



Persiapan Migrasi Database

Lakukan persiapan migrasi sesuai dengan rancangan relasi tabel database yang Anda butuhkan.

Langkah Migrasi Database:

1. Buat file migrasi untuk setiap tabel menggunakan perintah berikut:

```
vania make:migration create_customers_table
vania make:migration create_products_table
vania make:migration create_productnotes_table
vania make:migration create_vendors_table
vania make:migration create_orders_table
vania make:migration create_orderitems_table
vania make:migration create_users_table
vania make:migration create_users_table
vania make:migration create_todos_table
vania make:migration create_personal_token_access_table
```

2. Buat file migrasi sesuai dengan tabel yang akan digunakan:

File migrasi untuk Customers.

```
import 'package:vania/vania.dart';

class CreateCustomersTable extends Migration {
    @override
    Future<void> up() async{
    super.up();
}
```

```
await createTableNotExists('customers', () {
      char('cust id', length: 5);
      primary('cust id');
      string('cust_name', length: 50);
      string('cust address', length: 50);
      string('cust_city', length: 20);
      string('cust_state', length: 5);
      string('cust_zip', length: 7);
      string('cust_country', length: 25);
      string('cust_telp', length: 15);
      timeStamps();
   });
 }
 @override
 Future<void> down() async {
    super.down();
   await dropIfExists('customers');
 }
}
```

• File migrasi untuk *Products*.

```
import 'package:vania/vania.dart';
class CreateProductsTable extends Migration {
  @override
  Future<void> up() async{
   super.up();
   await createTableNotExists('products', () {
      string('prod_id', length: 10);
      primary('prod_id');
      char('vend_id', length: 11);
      foreign('vend_id', 'vendors', 'vend_id', constrained: true, onDelete:
'CASCADE');
      string('prod_name', length: 25);
      bigInt('prod price', length: 15, defaultValue: 0);
      text('prod desc');
      timeStamps();
   });
  }
  @override
  Future<void> down() async {
    super.down();
    await dropIfExists('products');
  }
}
```

o File migrasi untuk *Product Notes*.

```
import 'package:vania/vania.dart';
class CreateProductnotesTable extends Migration {
 @override
 Future<void> up() async{
  super.up();
   await createTableNotExists('productnotes', () {
      char('note_id', length: 5);
      primary('note_id');
      string('prod_id', length: 10);
      foreign('prod_id', 'products', 'prod_id', constrained: true, onDelete:
'CASCADE');
     date('note_date');
      text('note text');
     timeStamps();
   });
 }
 @override
 Future<void> down() async {
    super.down();
   await dropIfExists('productnotes');
 }
}
```

o File migrasi untuk Vendors.

```
import 'package:vania/vania.dart';
class CreateVendorsTable extends Migration {
 @override
 Future<void> up() async{
   super.up();
   await createTableNotExists('vendors', () {
      char('vend_id', length: 5);
      primary('vend id');
      string('vend_name', length: 50);
     text('vend address');
     text('vend_kota');
      string('vend state', length: 5);
      string('vend_zip', length: 7);
      string('vend_country', length: 25);
     timeStamps();
   });
  }
 @override
 Future<void> down() async {
```

```
super.down();
await dropIfExists('vendors');
}
```

o File migrasi untuk Orders.

```
import 'package:vania/vania.dart';
class CreateOrdersTable extends Migration {
 @override
 Future<void> up() async{
   super.up();
   await createTableNotExists('orders', () {
      bigInt('order_num');
      primary('order_num');
      date('order_date');
      char('cust_id', length: 5);
      foreign('cust_id', 'customers', 'cust_id', constrained: true, onDelete:
'CASCADE');
     timeStamps();
   });
 }
 @override
 Future<void> down() async {
   super.down();
    await dropIfExists('orders');
 }
}
```

o File migrasi untuk Order Items.

```
import 'package:vania/vania.dart';

class CreateOrderitemsTable extends Migration {

    @override
    Future<void> up() async{
        super.up();
        await createTableNotExists('orderitems', () {
            bigInt('order_item', length: 11);
            primary('order_item');
            bigInt('order_num', length: 11);
            foreign('order_num', 'orders', 'order_num', constrained: true, onDelete:

'CASCADE');
        string('prod_id', length: 10);
        foreign('prod_id', 'products', 'prod_id', constrained: true, onDelete:

'CASCADE');
        integer('quantity', defaultValue: 0);
```

```
integer('size',defaultValue: 0);
});
}

@override
Future<void> down() async {
    super.down();
    await dropIfExists('orderitems');
}
}
```

o File migrasi untuk *Users*.

```
import 'package:vania/vania.dart';
class CreateUsersTable extends Migration {
 @override
  Future<void> up() async{
   super.up();
   await createTableNotExists('users', () {
      id();
      string('name', length: 100);
      string('email', length: 191);
      string('password', length: 200);
      dateTime('created_at', nullable: true);
      dateTime('updated at', nullable: true);
     dateTime('deleted at', nullable: true);
   });
 }
 @override
 Future<void> down() async {
    super.down();
    await dropIfExists('users');
 }
}
```

o File migrasi untuk To Do.

```
import 'package:vania/vania.dart';

class CreateTodosTable extends Migration {

    @override
    Future<void> up() async{
        super.up();
        await createTableNotExists('todos', () {
            id();
            bigInt('user_id', unsigned: true);
            foreign('user_id', 'users', 'id');
            string('title');
    }
}
```

```
text('desciption');
  timeStamps();
});
}

@override
Future<void> down() async {
  super.down();
  await dropIfExists('todos');
}
}
```

o File migrasi untuk Personal Access Token.

```
import 'package:vania/vania.dart';
class CreatePersonalAccessTokensTable extends Migration {
 @override
 Future<void> up() async{
   super.up();
   await createTableNotExists('personal_access_tokens', () {
      id();
      tinyText('name');
      bigInt('tokenable id');
      string('token');
     timeStamp('last_used_at', nullable: true);
      timeStamp('created_at', nullable: true);
      timeStamp('deleted at', nullable:true);
      index(ColumnIndex.unique, 'token', ['token']);
   });
 }
 @override
 Future<void> down() async {
    super.down();
    await dropIfExists('personal access tokens');
 }
```

Membuat Model untuk Tabel

• Model Customers

```
import 'package:vania/vania.dart';
import '../utils/generate_id.dart';

class Customers extends Model{
   Customers(){
      super.table('customers');
   }
```

```
String generateId() {
   const characters =
'abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789';
   return Utils.generateId(5, characters);
}
```

Model Order Items

```
import 'package:vania/vania.dart';
import '../utils/generate_id.dart';

class OrderItems extends Model {
    OrderItems() {
        super.table('orderitems');
    }
    String generateId() {
        const characters = '0123456789';
        return Utils.generateId(11, characters);
    }
}
```

Model Orders

```
import 'package:vania/vania.dart';
import '../utils/generate_id.dart';

class Order extends Model {
    Order() {
        super.table('orders');
    }

    String generateId() {
        const characters = '0123456789';
        return Utils.generateId(11, characters);
    }
}
```

• Model Products

```
import 'package:vania/vania.dart';
import '../utils/generate_id.dart';

class Product extends Model {
    Product() {
        super.table('products');
    }
        String generateId() {
        const characters =
    'abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789';
        return Utils.generateId(5, characters);
    }
}
```

• Model Product Notes

```
import 'package:vania/vania.dart';
import '../utils/generate_id.dart';

class ProductNotes extends Model {
    ProductNotes() {
        super.table('productnotes');
    }
    String generateId() {
        const characters =
    'abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789';
        return Utils.generateId(5, characters);
    }
}
```

Model To Do

```
import 'package:vania/vania.dart';
import '../utils/generate_id.dart';

class Todos extends Model {
   Todos() {
      super.table('todos');
   }
   String generateId() {
      const characters =
   'abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789';
      return Utils.generateId(5, characters);
   }
}
```

Model Users

```
import 'package:vania/vania.dart';
import '../utils/generate_id.dart';

class Users extends Model {
    Users() {
        super.table('users');
    }

    String generateId() {
        const characters =
    'abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789';
        return Utils.generateId(5, characters);
    }
}
```

• Model Vendors

```
import 'package:vania/vania.dart';
import '../utils/generate_id.dart';
class Vendors extends Model {
```

```
DateTime createdAt = DateTime.now();
DateTime updatedAt = DateTime.now();

Vendors() {
    super.table('vendors');
    createdAt = DateTime.now();
    updatedAt = DateTime.now();
}

String generateId() {
    const characters =
    'abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789';
    return Utils.generateId(5, characters);
}
```

• Utils Id

Membuat Controller untuk Tabel

Setelah membuat model, buat controller untuk setiap tabel menggunakan perintah:

```
vania make:controller customers_controller
vania make:controller products_controller
vania make:controller productnotes_controller
vania make:controller vendors_controller
vania make:controller orders_controller
vania make:controller todos_controller
vania make:controller auth_controller
```

Controller yang dibuat meliputi:

• Customers Controller

```
import 'package:vania/vania.dart';
import 'package:pamladjani/app/models/customers.dart';

class CustomerController extends Controller {
   Future<Response> listCustomers() async {
```

```
try {
 var queryResults = await Customers()
      .join('orders', 'customers.cust_id', '=', 'orders.cust_id')
      .join('orderitems', 'orders.order_num', '=', 'orderitems.order_num')
      .get();
  Map<String, dynamic> customerData = {};
  for (var record in queryResults) {
    String customerId = record['cust_id'];
    if (!customerData.containsKey(customerId)) {
      customerData[customerId] = {
        'cust_id': record['cust_id'],
        'cust name': record['cust name'],
        'cust_address': record['cust_address'],
        'cust_city': record['cust_city'],
        'cust_zip': record['cust_zip'],
        'cust_country': record['cust_country'],
        'cust_telp': record['cust_telp'],
        'created_at': record['created_at'],
        'updated_at': record['updated_at'],
        'orders': []
      };
    }
    String orderNumber = record['order_num'].toString();
    var existingOrder = customerData[customerId]['orders'].firstWhere(
        (order) => order['order_num'].toString() == orderNumber,
        orElse: () => null);
    if (existingOrder == null) {
      existingOrder = {
        'order_num': record['order_num'],
        'order_date': record['order_date'],
        'created_at': record['created_at'],
        'updated_at': record['updated_at'],
        'order items': []
      };
      customerData[customerId]['orders'].add(existingOrder);
    }
    existingOrder['order_items'].add({
      'order_item': record['order_item'],
      'prod_id': record['prod_id'],
      'quantity': record['quantity'],
      'size': record['size'],
```

```
'created_at': record['created_at'],
          'updated at': record['updated at'],
       });
      }
      return Response.json({
       'success': true,
        'message': 'Customers retrieved successfully',
        'data': customerData.values.toList(),
      });
    } catch (error) {
      return Response.json({
        'success': false,
        'message': 'Error retrieving customers',
        'error': error.toString()
     });
   }
  }
  Future<Response> createCustomer() async {
    return Response.json({});
 }
 Future<Response> storeCustomer(Request request) async {
     var name = request.input('name');
     var address = request.input('address');
     var city = request.input('kota');
     var zipCode = request.input('zip');
     var country = request.input('country');
     var phone = request.input('telp');
     var customerId = Customers().generateId();
      await Customers().query().insert({
        'cust_id': customerId,
        'cust_name': name,
        'cust address': address,
        'cust_city': city,
        'cust_zip': zipCode,
        'cust_country': country,
        'cust telp': phone,
        'created_at': DateTime.now().toIso8601String(),
        'updated_at': DateTime.now().toIso8601String(),
      });
      var newCustomer = await Customers().query().where('cust_id', '=',
customerId).first();
```

```
return Response.json({
        'success': true,
        'message': 'Customer created successfully',
        'data': newCustomer
      });
    } catch (error) {
      return Response.json({
        'success': false,
        'message': 'Error creating customer',
        'error': error.toString()
     });
   }
 }
 Future<Response> showCustomer(String id) async {
     var customer = await Customers().query().where('cust_id', '=',
id).first();
     if (customer == null) {
       return Response.json({
         'success': false,
          'message': 'Customer not found',
        });
      return Response.json({
        'success': true,
        'message': 'Customer found',
        'data': customer,
     });
    } catch (error) {
      return Response.json({
        'success': false,
        'message': 'Error retrieving customer',
        'error': error.toString()
     });
   }
 }
 Future<Response> editCustomer(int id) async {
    return Response.json({});
 Future<Response> updateCustomer(Request request, String id) async {
   try {
     var name = request.input('name');
     var address = request.input('address');
```

```
var city = request.input('kota');
     var zipCode = request.input('zip');
     var country = request.input('country');
      var phone = request.input('telp');
      await Customers().query().where('cust_id', '=', id).update({
        'cust name': name,
        'cust_address': address,
        'cust city': city,
        'cust_zip': zipCode,
        'cust_country': country,
        'cust telp': phone,
        'updated at': DateTime.now().toIso8601String(),
      });
     var updatedCustomer = await Customers().query().where('cust id', '=',
id).first();
      return Response.json({
        'success': true,
        'message': 'Customer updated successfully',
        'data': updatedCustomer
      });
    } catch (error) {
      return Response.json({
        'success': false,
        'message': 'Error updating customer',
        'error': error.toString()
     });
   }
 }
 Future<Response> deleteCustomer(String id) async {
   try {
     var customer = await Customers().query().where('cust_id', '=',
id).first();
     if (customer == null) {
        return Response.json({
          'success': false,
          'message': 'Customer not found',
       });
      }
      await Customers().query().where('cust_id', '=', id).delete();
      return Response.json({
       'success': true,
```

```
'message': 'Customer deleted successfully',
});
} catch (error) {
    return Response.json({
        'success': false,
        'message': 'Error deleting customer',
        'error': error.toString()
    });
}

final CustomerController customerController = CustomerController();
```

• Products Controller

```
import 'package:vania/vania.dart';
import 'package:pamladjani/app/models/products.dart';
import 'package:pamladjani/app/models/vendors.dart';
class ProductsController extends Controller {
  Future < Response > listProducts() async {
    try {
      var results = await Product()
          .join('productnotes', 'products.prod_id', '=',
'productnotes.prod_id')
          .get();
      Map<String, dynamic> productMap = {};
      for (var row in results) {
        String prodId = row['prod_id'];
        if (!productMap.containsKey(prodId)) {
          productMap[prodId] = {
            'prod_id': row['prod_id'],
            'vend id': row['vend id'],
            'prod_name': row['prod_name'],
            'prod_price': row['prod_price'],
            'prod desc': row['prod desc'],
            'created at': row['created at'],
            'updated_at': row['updated_at'],
            'product notes': []
        } productMap[prodId]['product_notes'].add({
          'note_id': row['note_id'],
          'note_date': row['note_date'],
          'note_text': row['note_text'],
          'created_at': row['created_at'],
          'updated at': row['updated at'],
        });
```

```
return Response.json({
      'success': true,
      'message': 'Products found',
      'data': productMap.values.toList(),
    });
  } catch (e) {
    return Response.json({
      'success': false,
      'message': 'Failed to get products',
      'error': e.toString()
    });
 }
}
Future<Response> create() async {
  return Response.json({});
Future<Response> createProduct(Request request) async {
   var vendorId = request.input('vendor_id');
   var name = request.input('name');
   var price = request.input('price');
   var desc = request.input('desc');
   var isVendorExist =
        await Vendors().query().where('vend_id', '=', vendorId).first();
    if (isVendorExist == null) {
     return Response.json({
        'success': false,
        'message': 'Vendor not found',
     });
    }
    var productId = Product().generateId();
    await Product().query().insert({
      'prod_id': productId,
      'vend_id': isVendorExist['vend_id'],
      'prod_name': name,
      'prod_price': price,
      'prod_desc': desc,
      'created at': DateTime.now().toIso8601String(),
      'updated_at': DateTime.now().toIso8601String(),
   });
    var product =
        await Product().query().where('prod_id', '=', productId).first();
   return Response.json({
```

```
'success': true,
      'message': 'Product created successfully',
      'data': product
    });
  } catch (e) {
    return Response.json({
      'success': false,
      'message': 'Store product failed',
      'error': e.toString()
   });
 }
}
Future<Response> showProduct(int id) async {
  return Response.json({});
}
Future<Response> edit(int id) async {
  return Response.json({});
}
Future<Response> editProduct(Request request, String id) async {
  try {
   var product = await Product().query().where('prod_id', '=', id).first();
   if (product == null) {
     return Response.json({
        'success': false,
        'message': 'Product not found',
     });
    }
   var vendorId = request.input('vendor_id');
    if (vendorId != null && vendorId.isNotEmpty) {
      var isVendorExist =
          await Vendors().query().where('vend_id', '=', vendorId).first();
     if (isVendorExist == null) {
        return Response.json({
          'success': false,
          'message': 'Vendor not found',
        });
     }
    }
   var name = request.input('name');
   var price = request.input('price');
   var desc = request.input('desc');
    await Product().query().where('prod_id', '=', id).update({
      'vend_id': vendorId ?? product['vend_id'],
```

```
'prod_name': name,
        'prod price': price,
        'prod desc': desc,
        'updated_at': DateTime.now().toIso8601String(),
      });
      var updatedProduct = await Product().query().where('prod_id', '=',
id).first();
      return Response.json({
        'success': true,
        'message': 'Product updated successfully',
        'data': updatedProduct
      });
    } catch (e) {
      return Response.json({
        'success': false,
        'message': 'Update product failed',
        'error': e.toString()
      });
    }
  }
  Future<Response> deleteProduct(String id) async {
    try {
      var product = await Product().query().where('prod_id', '=', id).first();
      if (product == null) {
        return Response.json({
          'success': false,
          'message': 'Product not found',
        });
      }
      await Product().query().where('prod_id', '=', id).delete();
      return Response.json({
        'success': true,
        'message': 'Product deleted successfully',
      });
    } catch (e) {
      return Response.json({
        'success': false,
        'message': 'Delete product failed',
        'error': e.toString()
      });
    }
  }
}
final ProductsController productsController = ProductsController();
```

• Product Notes Controller

```
import 'package:vania/vania.dart';
import 'package:pamladjani/app/models/products.dart';
import 'package:pamladjani/app/models/productnotes.dart';
class ProductnotesController extends Controller {
  Future<Response> listNotes() async {
   try {
     var results = await ProductNotes()
          .query()
          .join('products', 'productnotes.prod_id', '=', 'products.prod_id')
          .select(['productnotes.*', 'products.prod_name']).get();
       return Response.json({
        'success': true,
        'message': 'Product Notes found',
        'data': results,
      });
    } catch (e) {
      return Response.json({
        'success': false,
        'message': 'Failed to get product notes',
        'error': e.toString()
      });
   }
 }
 Future<Response> create() async {
    return Response.json({});
 }
 Future<Response> createNote(Request request) async {
     var productId = request.input('product_id');
     var isProductExist = await Product().query().where('prod_id', '=',
productId).first();
      if (isProductExist == null) {
        return Response.json({
          'success': false,
          'message': 'Product not found',
        });
      }
     var noteDate = request.input('date');
     var noteText = request.input('text');
     var productNoteId = ProductNotes().generateId();
      await ProductNotes().query().insert({
        'note_id': productNoteId,
        'prod_id': isProductExist['prod_id'],
```

```
'note_date': noteDate,
        'note text': noteText,
        'created at': DateTime.now().toIso8601String(),
        'updated_at': DateTime.now().toIso8601String(),
      });
      var productNote = await ProductNotes()
          .query()
          .where('note_id', '=', productNoteId)
          .first();
      return Response.json({
        'success': true,
        'message': 'Product Note created successfully',
        'data': productNote
      });
    } catch (e) {
      return Response.json({
        'success': false,
        'message': 'Failed to create product note',
        'error': e.toString()
     });
   }
 }
 Future<Response> showNote(int id) async {
    return Response.json({});
 }
 Future<Response> edit(int id) async {
    return Response.json({});
 }
 Future<Response> editNote(Request request, String id) async
{
   try {
     var existingProductNote = await ProductNotes().query().where('note_id',
'=', id).first();
     if (existingProductNote == null) {
       return Response.json({
          'success': false,
          'message': 'Product Note not found',
       });
      }
     var productId = request.input('product_id');
      if (productId != null && productId.isNotEmpty) {
        var isProductExist = await Product().query().where('prod_id', '=',
productId).first();
```

```
if (isProductExist == null) {
          return Response.json({
            'success': false,
            'message': 'Product not found',
          });
        }
      } else {
       productId = existingProductNote['prod_id'];
     var noteDate = request.input('date');
     var noteText = request.input('text');
      await ProductNotes().query().where('note_id', '=', id).update({
        'prod_id': productId,
        'note date': noteDate,
        'note text': noteText,
        'updated_at': DateTime.now().toIso8601String(),
      });
      var productNote = await ProductNotes().query().where('note_id', '=',
id).first();
      return Response.json({
        'success': true,
        'message': 'Product Note updated successfully',
        'data': productNote
     });
    } catch (e) {
      return Response.json({
        'success': false,
        'message': 'Failed to update product note',
        'error': e.toString()
      });
   }
 }
 Future<Response> deleteNote(String id) async {
    try {
     var existingProductNote = await ProductNotes().query().where('note_id',
'=', id).first();
      if (existingProductNote == null) {
        return Response.json({
          'success': false,
          'message': 'Product Note not found',
       });
      }
      await ProductNotes().query().where('note_id', '=', id).delete();
     return Response.json({
```

```
'success': true,
    'message': 'Product Note deleted successfully',
});
} catch (e) {
    return Response.json({
        'success': false,
        'message': 'Failed to delete product note',
        'error': e.toString()
     });
}

final ProductnotesController productnotesController =
ProductnotesController();
```

• Vendors Controller

```
import 'package:vania/vania.dart';
import 'package:pamladjani/app/models/vendors.dart';
class VendorsController extends Controller {
 Future<Response> listVendor() async {
   try {
     var vendors = await Vendors().query().get();
      return Response.json({
        'success': true,
        'message': 'Vendors found',
        'data': vendors,
     });
    } catch (e) {
      return Response.json({
        'success': false,
        'message': 'Failed to get vendors',
        'error': e.toString()
     });
   }
 }
 Future<Response> create() async {
    return Response.json({});
  }
 Future<Response> createVendor(Request request) async {
   var name = request.input('name');
   var address = request.input('address');
   var kota = request.input('kota');
   var state = request.input('state');
   var zip = request.input('zip');
   var country = request.input('country');
```

```
try {
     var vendId = Vendors().generateId();
      await Vendors().query().insert({
        'vend id': vendId,
        'vend name': name,
        'vend_address': address,
        'vend_kota': kota,
        'vend_state': state,
        'vend_zip': zip,
        'vend country': country,
        'created_at': DateTime.now().toIso8601String(),
        'updated_at': DateTime.now().toIso8601String(),
      });
      var vendor = await Vendors().query().where('vend_id', '=',
vendId).first();
      return Response.json({
        'success': true,
        'message': 'Vendor created successfully',
        'data': vendor
      });
    } catch (e) {
      return Response.json({
        'success': false,
        'message': 'Failed to create vendor',
        'error': e.toString()
     });
   }
  }
  Future<Response> showVendor(String id) async {
    try {
     var vendor = await Vendors().query().where('vend_id', '=', id).first();
      if (vendor == null) {
       return Response.json({
          'success': false,
          'message': 'Vendor not found',
       });
      }
      return Response.json(
        {'success': true, 'message': 'Vendor found', 'data': vendor},
      );
    } catch (e) {
      return Response.json({
        'success': false,
        'message': 'Failed to get vendor',
```

```
'error': e.toString()
     });
   }
 }
  Future<Response> edit(int id) async {
    return Response.json({});
 }
  Future<Response> editVendor(Request request, String id) async {
     var vendor = await Vendors().query().where('vend id', '=', id).first();
      if (vendor == null) {
        return Response.json({
          'success': false,
          'message': 'Vendor not found',
       });
      }
     var name = request.input('name');
     var address = request.input('address');
     var kota = request.input('kota');
     var state = request.input('state');
     var zip = request.input('zip');
     var country = request.input('country');
      await Vendors().query().where('vend_id', '=', id).update({
        'vend_name': name,
        'vend_address': address,
        'vend kota': kota,
        'vend_state': state,
        'vend_zip': zip,
        'vend_country': country,
       'updated_at': DateTime.now().toIso8601String(),
      });
      var updatedVendor = await Vendors().query().where('vend_id', '=',
id).first();
      return Response.json({
       'success': true,
        'message': 'Vendor updated successfully',
        'data': updatedVendor
      });
    } catch (e) {
      return Response.json({
        'success': false,
        'message': 'Failed to update vendor',
        'error': e.toString()
```

```
});
    }
  }
  Future<Response> deleteVendor(String id) async {
      var vendor = await Vendors().query().where('vend_id', '=', id).first();
      if (vendor == null) {
        return Response.json({
          'success': false,
          'message': 'Vendor not found',
        });
      }
      await Vendors().query().where('vend_id', '=', id).delete();
      return Response.json({
        'success': true,
        'message': 'Vendor deleted successfully',
      });
    } catch (e) {
      return Response.json({
        'success': false,
        'message': 'Failed to delete vendor',
        'error': e.toString()
      });
    }
  }
}
final VendorsController vendorsController = VendorsController();
```

• Orders Controller

```
for (var row in results) {
      int orderNum = row['order num'];
      if (!orderMap.containsKey(orderNum)) {
        orderMap[orderNum.toString()] = {
           'order_num': row['order_num'],
           'order_date': row['order_date'],
           'customer_id': row['cust_id'],
           'customer_name': row['cust_name'],
           'created_at': row['created_at'],
           'updated_at': row['updated_at'],
           'order_items': []
      } orderMap[orderNum.toString()]['order items'].add({
           'order_item': row['order_item'],
           'product_id': row['prod_id'],
           'product_name': row['prod_name'],
           'quantity': row['quantity'],
           'size': row['size'],
           'created_at': row['created_at'],
           'updated_at': row['updated_at'],
        });
      }
    return Response.json({
      'success': true,
       'message': 'Orders found',
      'data': orderMap.values.toList(),
    });
  } catch (e) {
    print(e.toString());
    return Response.json({
      'success': false,
      'message': 'Failed to get orders',
      'error': e.toString()
    });
 }
}
Future<Response> create() async {
  return Response.json({});
}
Future<Response> createOrder(Request request) async {
try {
```

```
var orderDate = request.input('order_date');
var customerId = request.input('customer id');
var isCustomerExist =
    await Customers().query().where('cust_id', '=', customerId).first();
if (isCustomerExist == null) {
  return Response.json({
    'success': false,
    'message': 'Customer not found',
 });
}
var orderItems = request.input('order items') as List;
if (orderItems.isEmpty) {
  return Response.json({
    'success': false,
    'message': 'Order items is empty',
  });
}
var orderNum = Order().generateId();
await Order().query().insert({
  'order_num': orderNum,
  'order_date': orderDate,
  'cust id': customerId,
  'created_at': DateTime.now().toIso8601String(),
  'updated_at': DateTime.now().toIso8601String(),
});
List<Map<String, dynamic>> savedOrderItems = [];
for (var item in orderItems) {
  if (item is Map) {
    var prodId = item['prod_id'];
    var quantity = item['quantity'];
    var size = item['size'];
    if (prodId == null || quantity == null || size == null) {
      return Response.json({
        'success': false,
        'message': 'Order items is invalid',
     });
    }
    var isProductExist =
        await Product().query().where('prod_id', '=', prodId).first();
    if (isProductExist == null) {
```

```
return Response.json({
            'success': false,
            'message': 'Product not found',
          });
        var orderItemData = {
          'order_item': OrderItems().generateId(),
          'order_num': orderNum,
          'prod_id': isProductExist['prod_id'],
          'quantity': quantity,
          'size': size,
          'created_at': DateTime.now().toIso8601String(),
          'updated at': DateTime.now().toIso8601String(),
        };
        await OrderItems().query().insert(orderItemData);
        savedOrderItems.add(orderItemData);
      }
    }
    return Response.json({
      'success': true,
      'message': 'Order created successfully',
      'data': {
        'orders':
            await Order().query().where('order_num', '=', orderNum).first(),
        'order_items': savedOrderItems,
      }
    });
  } catch (e) {
    return Response.json({
      'success': false,
      'message': 'Failed to create order',
      'error': e.toString()
   });
  }
}
Future<Response> showOrder(int id) async {
  return Response.json({});
}
Future<Response> edit(int id) async {
  return Response.json({});
```

```
Future<Response> update(Request request, int id) async {
    return Response.json({});
  }
  Future<Response> deleteOrder(int id) async {
    try {
      var order = await Order().query().where('order_num', '=', id).first();
      if (order == null) {
        return Response.json({
          'success': false,
          'message': 'Order not found',
        });
      }
      await OrderItems().query().where('order num', '=', id).delete();
      await Order().query().where('order_num', '=', id).delete();
      return Response.json({
        'success': true,
        'message': 'Order deleted successfully',
      });
    } catch (e) {
      return Response.json({
        'success': false,
        'message': 'Failed to delete order',
        'error': e.toString()
     });
    }
  }
}
final OrdersController ordersController = OrdersController();
```

• Users Controller

```
return Response.json({
        'status': 'error',
        'message': 'Pengguna tidak terautentikasi',
      }, 401);
   }
  }
  Future<Response> updatePassword(Request request) async {
    request.validate({
      'current_password': 'required',
      'password': 'required|min_length:6|confirmed'
    }, {
      'current_password.required': 'Password saat ini wajib diisi',
      'password.required': 'Password baru wajib diisi',
      'password.min_length': 'Password baru harus memiliki minimal 6
karakter',
      'password.confirmed': 'Konfirmasi password tidak cocok',
    });
    String currentPassword = request.string('current_password');
    Map<String, dynamic>? user = Auth().user();
    if (user != null) {
     if (Hash().verify(currentPassword, user['password'])) {
        await Users().query().where ('id', '=', Auth().id()).update({
          'password': Hash().make(request.string('password')),
        });
        return Response.json({
          'status': 'success',
          'message': 'Password berhasil diperbarui',
        });
      } else {
        return Response.json({
          'status': 'error',
          'message': 'Password saat ini tidak cocok',
        }, 401);
      }
    } else {
      return Response.json({
        'status': 'error',
        'message': 'Pengguna tidak ditemukan',
      }, 404);
    }
 }
final UsersController usersController = UsersController();
```

• Authentication Controller

```
import 'package:vania/vania.dart';
import 'package:pamladjani/app/models/users.dart';
class AuthController extends Controller {
  Future<Response> register(Request request) async {
    request.validate({
      'name': 'required',
      'email': 'required|email',
      'password': 'required|min length:6|confirmed',
    }, {
      'name.required': 'nama tidak boleh kosong',
      'email.required': 'email tidak boleh kosong',
      'email.email': 'email yang dimasukkan tidak valid',
      'password.required': 'password tidak boleh kosong',
      'password.min length': 'password harus terdiri dari minimal 6 karakter',
      'password.confirmed': 'konfirmasi password tidak sesuai',
    });
    final name = request.input('name');
    final email = request.input('email');
    var password = request.input('password');
    var user = await Users().query().where('email', '=', email).first();
    if (user != null) {
     return Response.json({
        "message": "user sudah ada",
     },409);
    String userId = Users().generateId();
    password = Hash().make(password);
    await Users().query().insert({
      "id": userId,
      "name": name,
      "email": email,
      "password": password,
      "created_at": DateTime.now().toIso8601String(),
    });
    return Response.json({
      "message": "Berhasil mendaftarkan user"
      },201);
 }
 Future<Response> login(Request request) async {
    request.validate({
      'email': 'required|email',
      'password': 'required',
    }, {
```

```
'email.required': 'email tidak boleh kosong',
      'email.email': 'email tidak valid',
      'password.required': 'password tidak boleh kosong',
    });
    final email = request.input('email');
    var password = request.input('password').toString();
    var user = await Users().query().where('email', '=', email).first();
    if (user == null) {
      return Response.json({
        "message": "user belum terdaftar",
      }, 409);
    }
    if (!Hash().verify(password, user['password'])) {
      return Response.json({
        "message": "Kata sandi yang anda masukan salah",
      }, 401);
   final token = await Auth()
      .login(user)
      .createToken(expiresIn: Duration(days: 30), withRefreshToken: true);
    return Response.json({
      "message": "Berhasil Login",
      "token": token,
    });
  }
}
final AuthController authController = AuthController();
```

• To Do Controller

```
import 'package:vania/vania.dart';
import 'package:pamladjani/app/models/todos.dart';

class TodosController extends Controller {
  Future<Response> index() async {
    return Response.json({'message': 'Hello World'});
  }

Future<Response> store(Request request) async {
  request.validate({
    'title': 'required',
    'description': 'required',
  }, {
    'title.required': 'Judul To do wajib diisi',
    'description.required': 'Deskripsi To do wajib diisi',
}
```

```
});
    Map<String, dynamic> data = request.all();
    Map<String, dynamic>? user = Auth().user();
    if (user != null) {
      String todoId = Todos().generateId();
      var todos = await Todos().query().create({
        'id': todoId,
        'user_id': Auth().id(),
        'title': data['title'],
        'description': data['description'],
      });
      return Response.json({
        'status': 'success',
        'message': 'To do berhasil dibuat',
        'data': todos,
      }, 201);
    } else {
      return Response.json({
        'status': 'error',
        'message': 'Pengguna tidak terautentikasi',
      }, 401);
    }
  }
}
final TodosController todosController = TodosController();
```

Mengatur Rute

Setelah seluruh controller selesai dibuat, konfigurasi rute agar API dapat diakses sesuai kebutuhan.

```
import 'package:vania/vania.dart';
import 'package:pamladjani/app/http/controllers/customers_controller.dart';
import 'package:pamladjani/app/http/controllers/products_controller.dart';
import 'package:pamladjani/app/http/controllers/productnotes_controller.dart';
import 'package:pamladjani/app/http/controllers/productnotes_controller.dart';
import 'package:pamladjani/app/http/controllers/vendors_controller.dart';
import 'package:pamladjani/app/http/controllers/users_controller.dart';
import 'package:pamladjani/app/http/controllers/todos_controller.dart';
import 'package:pamladjani/app/http/controllers/auth_controller.dart';
import 'package:pamladjani/app/http/middleware/authenticate.dart';

class ApiRoute implements Route {
  @override
  void register() {
```

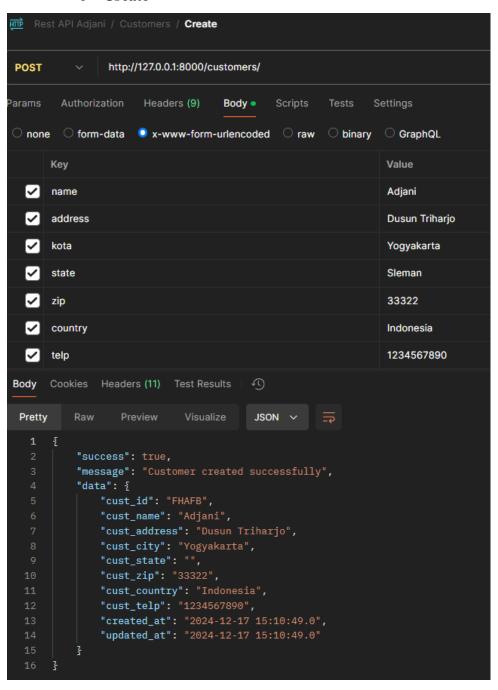
```
Router.group((){
 Router.post('/register', authController.register);
 Router.post('/login', authController.login);
}, prefix: '/auth');
Router.group(() {
 Router.patch('/update-password', usersController.updatePassword);
 Router.get('/', usersController.index);
}, prefix: '/user', middleware: [AuthenticateMiddleware()]);
Router.group(() {
 Router.post('/todo', todosController.store);
}, prefix: '/user', middleware: [AuthenticateMiddleware()]);
Router.group(() {
 Router.get('/', customerController.listCustomers);
 Router.post('/', customerController.storeCustomer);
 Router.get('/{id}', customerController.showCustomer);
 Router.put('/{id}', customerController.updateCustomer);
 Router.delete('/{id}', customerController.deleteCustomer);
}, prefix: '/customers');
Router.group(() {
 Router.get('/', ordersController.listOrders);
 Router.post('/', ordersController.createOrder);
 Router.get('/{id}', ordersController.showOrder);
 Router.delete('/{id}', ordersController.deleteOrder);
}, prefix: '/orders');
Router.group(() {
 Router.get('/', productsController.listProducts);
 Router.post('/', productsController.createProduct);
 Router.get('/{id}', productsController.showProduct);
 Router.put('/{id}', productsController.editProduct);
 Router.delete('/{id}', productsController.deleteProduct);
}, prefix: '/products');
Router.group(() {
 Router.get('/', productnotesController.listNotes);
 Router.post('/', productnotesController.createNote);
 Router.get('/{id}', productnotesController.showNote);
 Router.put('/{id}', productnotesController.editNote);
 Router.delete('/{id}', productnotesController.deleteNote);
}, prefix: '/product-notes');
Router.group(() {
 Router.get('/', vendorsController.listVendor);
 Router.post('/', vendorsController.createVendor);
```

```
Router.get('/{id}', vendorsController.showVendor);
Router.put('/{id}', vendorsController.editVendor);
Router.delete('/{id}', vendorsController.deleteVendor);
}, prefix: '/vendors');
}
```

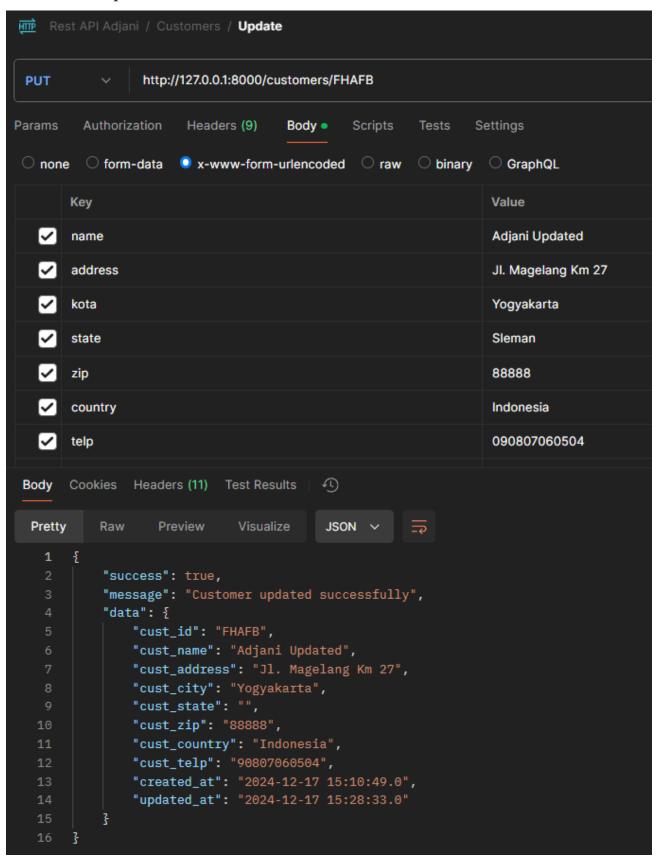
Pengujian menggunakan Postman

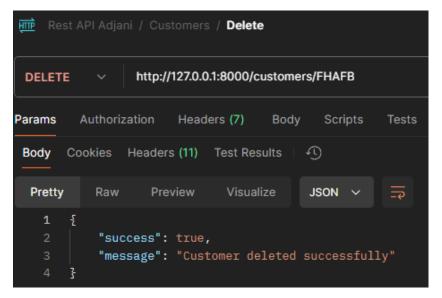
Gunakan Postman untuk menguji fungsi CRUD pada masing-masing tabel. Hasil yang diharapkan:

- Customers
 - Create



```
Rest API Adjani / Customers / Read
                 http://127.0.0.1:8000/customers
 GET
Params
         Authorization
                       Headers (7)
                                     Body
                                             Scripts
                                                      Tests
                                                              Settings
 Body Cookies Headers (11) Test Results
                                           Ð
  Pretty
           Raw
                    Preview
                               Visualize
                                           JSON V
                                                       乛
    1
            "success": true,
            "message": "Customers retrieved successfully",
            "data": [
                £
                    "cust_id": "FHAFB",
                    "cust_name": "Adjani",
                    "cust_address": "Dusun Triharjo",
                    "cust_city": "Yogyakarta",
                    "cust_zip": "33322",
                    "cust_country": "Indonesia",
   11
                    "cust_telp": "1234567890",
   12
                    "created_at": "2024-12-17 15:23:55.0",
   13
                    "updated_at": "2024-12-17 15:23:55.0",
                    "orders": [
   17
                             "order_num": 11310662623,
                             "order_date": "2025-01-10 00:00:00.0",
                             "created_at": "2024-12-17 15:23:55.0",
                             "updated_at": "2024-12-17 15:23:55.0",
                             "order_items": [
   21
                                     "order_item": 5930028234,
                                     "prod_id": "PDTbJ",
   24
                                     "quantity": 1,
                                     "size": 1,
                                     "created_at": "2024-12-17 15:23:55.0",
                                     "updated_at": "2024-12-17 15:23:55.0"
                        }
                3
```

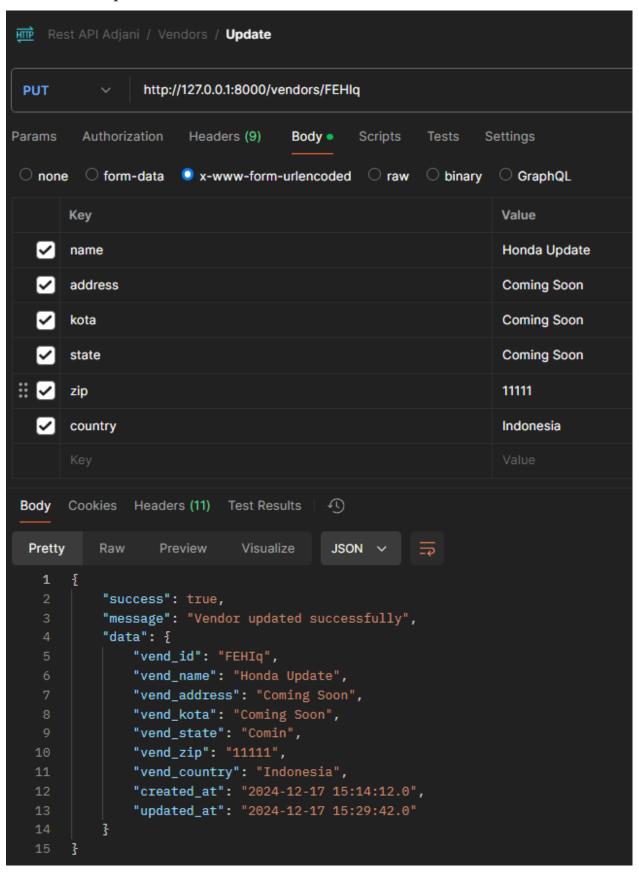


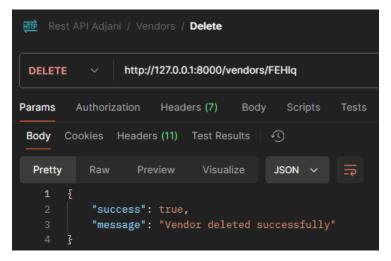


Vendors

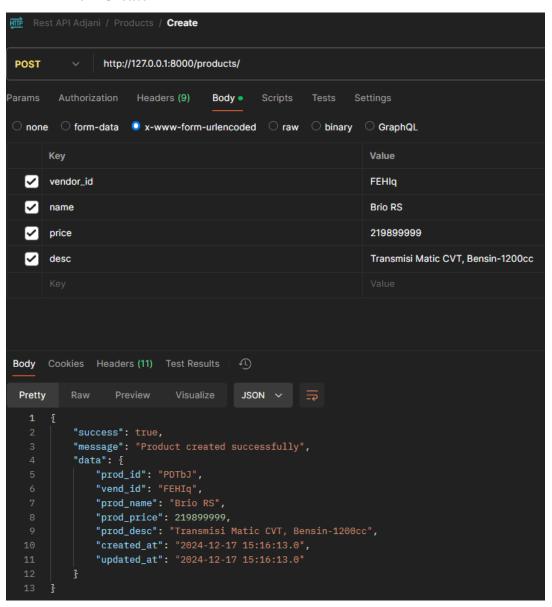
```
Rest API Adjani / Vendors / Create
 POST
                  http://127.0.0.1:8000/vendors/
Params Authorization Headers (9) Body Scripts Tests Settings
○ none ○ form-data ● x-www-form-urlencoded ○ raw ○ binary ○ GraphQL
       Key
                                                                      Value
   ✓ name
                                                                      Honda
   ✓ address
                                                                      Jl. Jogja-Solo
   ✓ kota
                                                                      Yogyakarta
   ✓ state
                                                                      DI Yogya
   ✓ zip
                                                                      12345
   ✓ country
                                                                      Indonesia
 Body Cookies Headers (11) Test Results
         Raw Preview Visualize JSON ∨ ¬
  Pretty
            "message": "Vendor created successfully",
                "vend_id": "FEHIq",
                "vend_name": "Honda",
                "vend_address": "Jl. Jogja-Solo",
                "vend_kota": "Yogyakarta",
"vend_state": "DI Yo",
                "vend_zip": "12345",
                "vend_country": "Indonesia",
"created_at": "2024-12-17 15:14:12.0",
"updated_at": "2024-12-17 15:14:12.0"
```

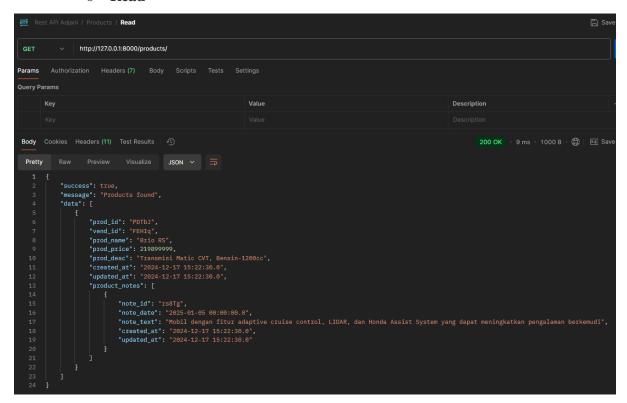
```
Rest API Adjani / Vendors / Read
                 http://127.0.0.1:8000/vendors/
 GET
Params Authorization Headers (7) Body
                                             Scripts
                                                      Tests
                                                              S
Query Params
       Key
 Body
       Cookies
                Headers (11) Test Results
                                          Ð
                               Visualize
                    Preview
  Pretty
           Raw
                                           JSON ~
    1
       £
            "success": true,
            "message": "Vendors found",
            "data": [
                £
                    "vend_id": "FEHIq",
                    "vend_name": "Honda",
                    "vend_address": "Jl. Jogja-Solo",
                    "vend_kota": "Yogyakarta",
   10
                    "vend_state": "DI Yo",
                    "vend_zip": "12345",
   11
                    "vend_country": "Indonesia",
   12
                    "created_at": "2024-12-17 15:14:12.0",
   13
                    "updated_at": "2024-12-17 15:14:12.0"
   14
   15
   16
   17
        }
```

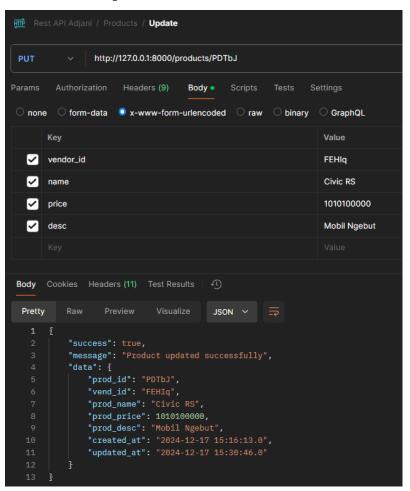


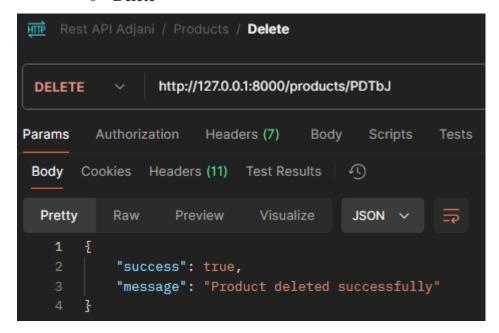


• Products

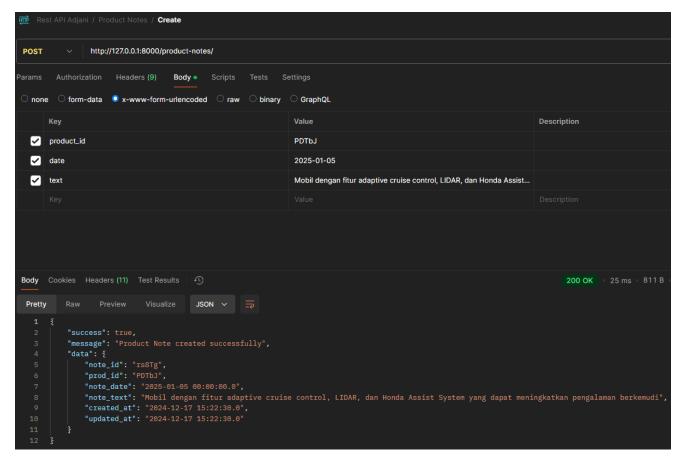


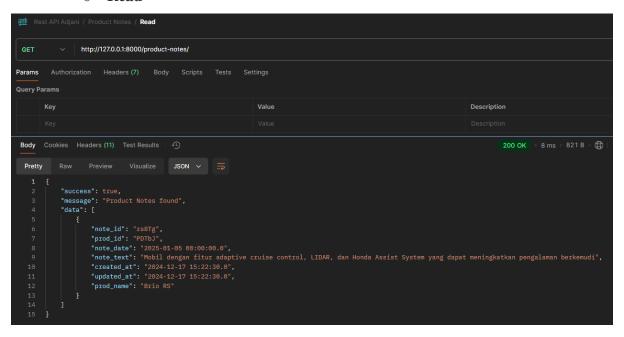


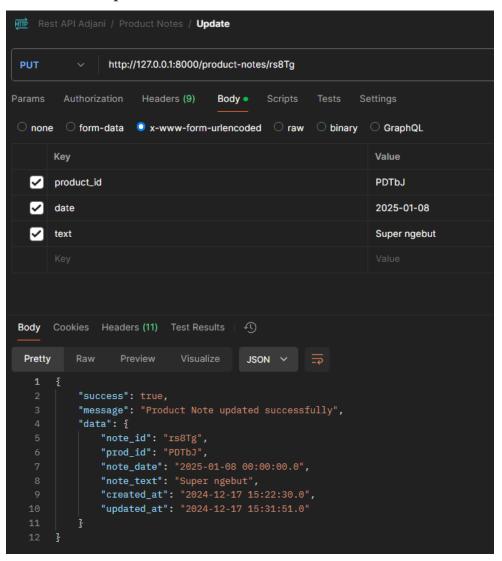


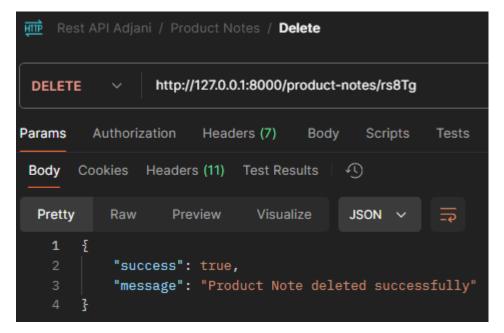


• Product Notes





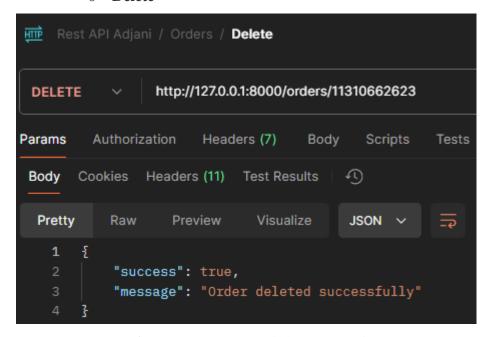




• Orders

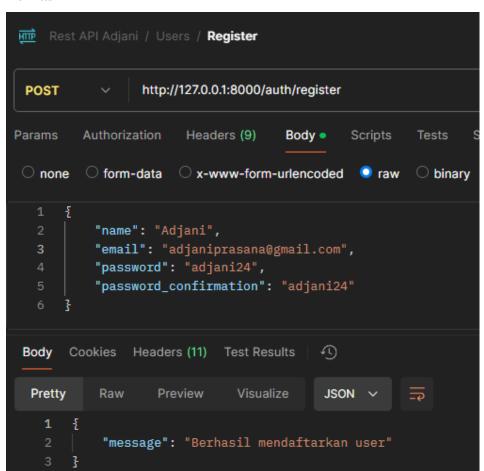
```
HITTP
   Rest API Adjani / Orders / Read
 GET
                 http://127.0.0.1:8000/orders/
         Authorization
Params
                      Headers (7)
                                     Body Scripts
                                                      Tests
                                                              Settings
Query Params
       Key
                                                                  Value
 Body Cookies Headers (11) Test Results
                                           Ð
           Raw
                    Preview
                               Visualize
                                           JSON V
  Pretty
    1
       £
            "success": true,
            "message": "Orders found",
            "data": [
                    "order_num": 11310662623,
                    "order_date": "2025-01-10 00:00:00.0",
                    "customer_id": "FHAFB",
                    "customer_name": "Adjani",
                    "created_at": "2024-12-17 15:10:49.0",
   10
                    "updated_at": "2024-12-17 15:10:49.0",
   11
                    "order_items": [
   12
   13
                             "order_item": 5930028234,
   14
   15
                             "product_id": "PDTbJ",
                             "product_name": "Brio RS",
   16
                             "quantity": 1,
   17
                             "size": 1,
   18
                             "created_at": "2024-12-17 15:10:49.0",
   19
                             "updated_at": "2024-12-17 15:10:49.0"
   21
   22
   23
                }
   24
   25
```

Delete

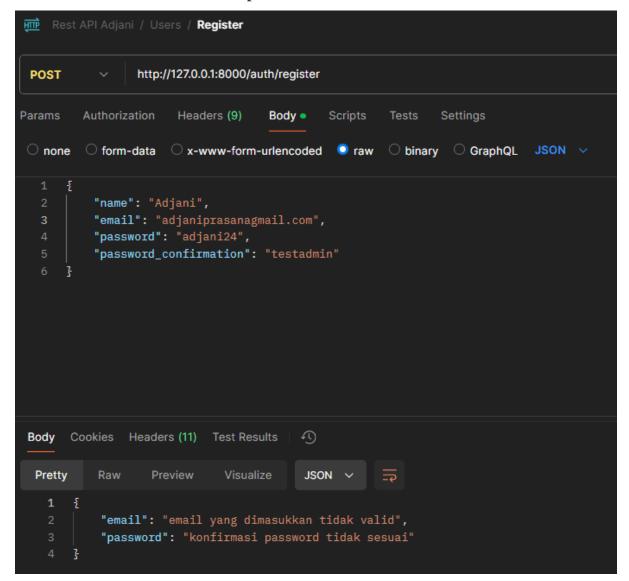


- Update: untuk transaksi tidak tersedia.
- User
 - Register

Berhasil

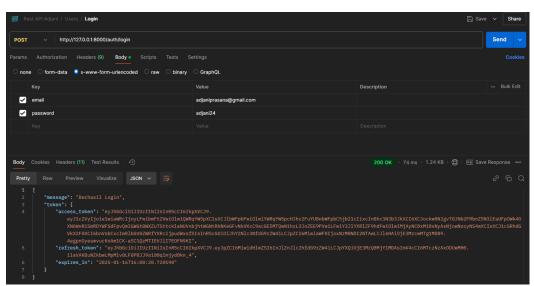


Tidak berhasil karena email atau password

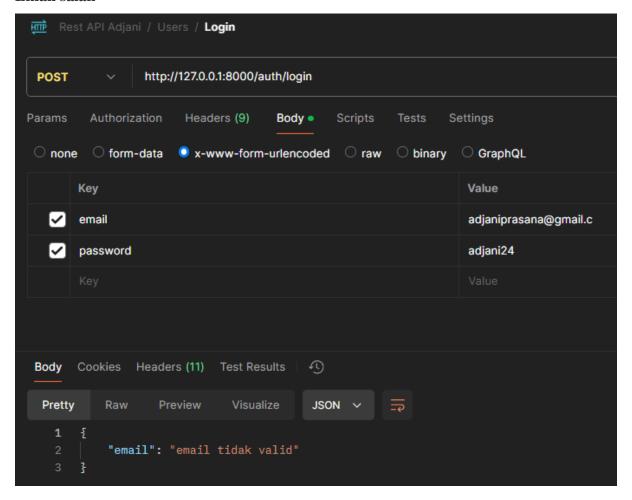


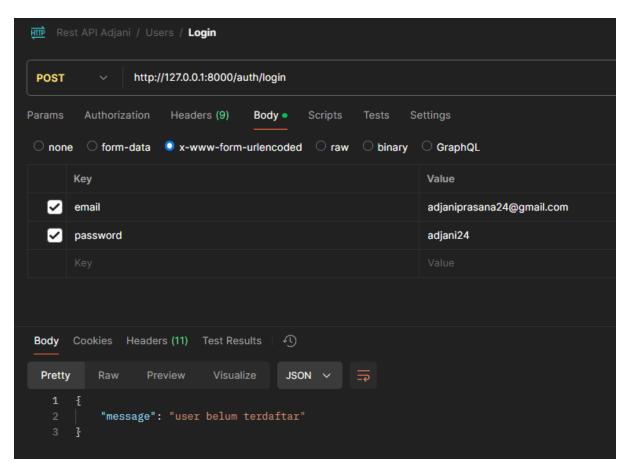
o Login

Berhasil

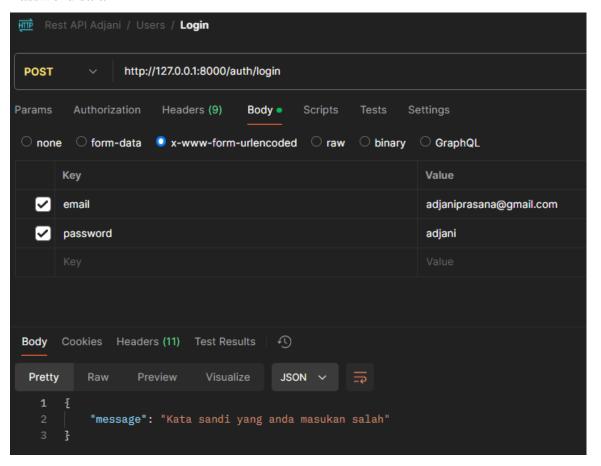


Email salah

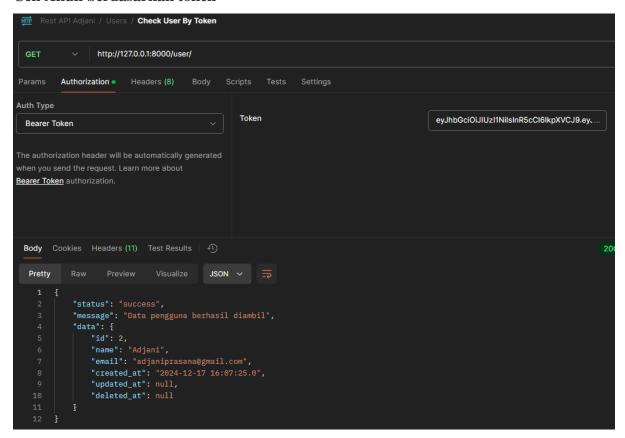




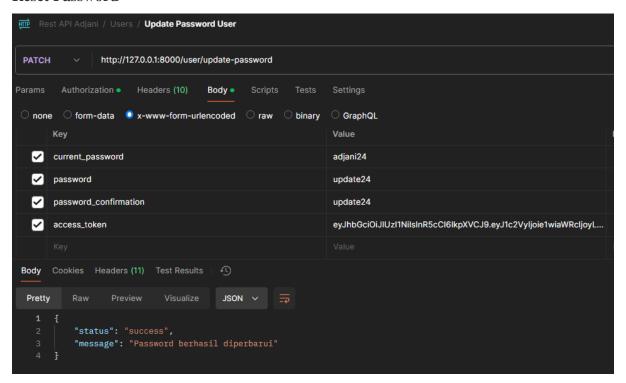
Password salah



Cek Akun berdasarkan token



Reset Password



• To Do

