

Project Documentation

Melalie Resto API

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OUTLINE DOCUMENTATION

- **Discover Of Melalie Resto API**
- **Setup or Configuration Backend (API) Server on Local Machine**
- **Create Database & Import Dataset To Database**
- **Melalie Resto API URL**
- **Melalie Resto API Documentation**

Discover Of Melalie Resto API

Melali Resto API is an API (Web Service) created for a mobile apps project called "Melalie Resto Delivery". This API was created to support the needs of these Apps features.

Technically this API was created using **PHP Language**, using PHP framework **Laravel 8** with PHP **version 7.4** and using the **MySQL** Database. Laravel is used here so that later it can also be helped if we want an admin panel that supports administrator features and makes it easier for developers to build the maximum API.

The API make the following tasks possible in the frontend:

- List all restaurants that are open at a certain datetime
- List all restaurants within the vicinity of the user's location or (any location), ranked by distance (the distances will be displayed in the app)
- List all restaurants that are open for x-z hours per day or week
- List all restaurants that have x-z number of dishes within a price range
- Search for restaurants or dishes by name, ranked by relevance to search term
- Search for restaurants that has a dish matching search term
- The top x users by total transaction amount within a date range
- The most popular restaurants by transaction volume, either by number of transactions or transaction amount
- Total number of users who made transactions above or below \$v with a date range
- List all transactions belonging to a restaurant
- List all transactions belonging to a user
- Process a user purchase in an atomic manner and ensure the changes of cash balances can be applied safely and correctly.

Setup Backend (API) Server on Local Machine

The API server that is used is MampPro for MAC OS. You can find it in this [link](#). MampPro is a web server on local machine which support on Mac OS and Windows with some feature like multiple PHP version, local SSL, local virtual host that you can make a local domain like “melaliresto.dev.test”.

Step to setup backend API server on Local Machine:

1. First Install the MampPro to your machine and setup the PHP version into 7.4
2. After that, clone the API repository from the github
3. After succes clone the repository from github, do composer install and copy the env from env.example.
4. Next create the virtual host “<http://melalieresto.test>” in MampPro and select the path into the public of project laravel, and after that save and restart the server.
5. Finish.

Create Database & Import Dataset To Database

Database that we used is MySQL. To create a Database you can go to “**phpmyadmin**” and create a database. Create “**db_melalieresto**” as a database name. For the dataset that we have as a json. So while we use Laravel we can execute an import dataset in Laravel using migration & seed. Step to setup the dataset to database:

- Dataset restaurants.json & users.json we put into laravel storage. Please put into {PathProject}/MelalieRestoApi/storage/app.
- After that we made a model in laravel. Model is representing the table on the database. So after looking and learning the dataset structure, we decided to create 8 models so there are the same 8 tables in the database. The model to be made like: Customers, Orders, OrdersDetails, Resto, RestoBusinessHours, RestoMenu, Token, User, and make sure all models have their respective data relations. Laravel command to create models is `"php artisan make:model {model name}"`.
- After that we made the database migration using migration laravel. Create all migration based on models that we created before. The Laravel command to create migration is `"php artisan make:migration create_{model name}_table"`. In this migration we must put fields that we want to create.
- After that we made the database seed using seed laravel. The purpose of using this feature is to extract data from each dataset and insert it into a database table that has been created in the laravel migration. The Laravel command to create seeder is `"php artisan make:seeder {seeder name}"`.
- In this seeder we take the json dataset and then extract the data. For example, we use it, we will extract the restaurant data which we will enter into the restaurant table. So first we take the data from restaurants.json using the code as below:

```
$jsonString = [];  
  
    if(File::exists(base_path('storage/app/restaurants.json'))){  
  
                                                $jsonString =  
file_get_contents(base_path('storage/app/restaurants.json'));  
  
        $jsonString = json_decode($jsonString, true);  
  
    }
```

Then if the foreach results from the extracted data then we insert it into the restaurant table using the Create Laravel barrier. Likewise for other data.

- After that run the command "php artisan migrate". To run the migration process, and after that run the command "php artisan db:seed". To run the seeder process, and after the 2 commands above are complete we will see on the database that we already have the table and the data on the database.
- Finish.

Melalie Resto API URL

The URL of Melali Resto API is :

- <https://melalieresto.harmonydshine.web.id/api/v1/restaurants/open-certain-times>
- <https://melalieresto.harmonydshine.web.id/api/v1/customers/orders>
- <https://melalieresto.harmonydshine.web.id/api/v1/restaurants/orders>
- <https://melalieresto.harmonydshine.web.id/api/v1/restaurants/locations>
- <https://melalieresto.harmonydshine.web.id/api/v1/restaurants/populars>
- <https://melalieresto.harmonydshine.web.id/api/v1/restaurants/search-dishes>
- <https://melalieresto.harmonydshine.web.id/api/v1/customers/top-orders>
- <https://melalieresto.harmonydshine.web.id/api/v1/orders/customers-total>
- <https://melalieresto.harmonydshine.web.id/api/v1/customers/login>
- <https://melalieresto.harmonydshine.web.id/api/v1/restaurants/login>

Melalie Resto API Documentation

The Documentation of Melali Resto API can be see in this link :

- <https://documenter.getpostman.com/view/541348/TVmLDK5v>