**Swagger API Documentation**

Access Swagger API document: gatewayurl/api-docs

Swagger is an open-source framework that allows you to generate, visualize, and interact with API documentation. It provides tools for describing the structure of your API using the Open API Specification (formerly known as Swagger Specification), which is a standardized format for defining RESTful APIs. In Our project, the backend API encapsulates the business logic and data processing logic of an application. API documentation is the information that is required to successfully consume and integrate with an API. Overall, Swagger API documentation provides a comprehensive solution for describing, visualizing, and interacting with RESTful APIs. By adopting Swagger, we can improve the developer experience, foster collaboration, and accelerate API development within our organization.

In this documentation, we are providing how to consume the API, URL endpoints, request examples, and expected responses. API documentation helps to understand what the API does and interact with its various resources, without having to integrate it into their application.

Benefits:

* We can visualize all of our internal APIs so that developers can use upstream and downstream services quickly and easily.
* The SwaggerUI has interactivity built in, so external consumers can use each resource of an API and get comfortable with it before using it in their code base.
* We can test API easily, it describes what a successful response looks like when someone calls the API.

The steps involved in creating swagger documentation for NodeJs API

1. Install Swagger tool: Install the necessary packages to create Swagger documentation.

🡺 npm install swagger-jsdoc swagger-ui-express.

swagger-jsdoc - for generating OpenAPI specification from JSDocs commands.

Swagger-ui-express – Swagger UI

1. Write JSDoc Commands: Annotate your API endpoints and their parameters with JSDoc comments. Include information such as the HTTP method, endpoint path, request parameters, request body, response schema, and any other relevant details. These comments will be used by swagger-jsdoc to generate the Swagger specification.

The file located in our project : Studio-Ghibli\backend\gateway\swagger\ api.yaml

1. Configure Swagger Options: The api.yaml file metadata such as the title, description, version.

info:

  title: Studio Ghibli API

  description: An Online platform for movie making courses.

  version: 0.1.9

1. Generate Swagger Specification: Use swagger-jsdoc to generate the Swagger specification based on the JSDoc comments.
2. Serve Swagger UI: Set up a route to serve the Swagger UI using swagger-ui-express. This allows developers to explore and test your API documentation interactively.

const swaggerUI = require("swagger-ui-express");

const yamljs = require("yamljs");

const swaggerJsDocs = yamljs.load("./swagger/api.yml");

swaggerJsDocs.servers[0].url = GATEWAY\_SERVICE\_END\_POINT;

app.use("/api-docs", swaggerUI.serve, swaggerUI.setup(swaggerJsDocs));

1. Start Your Server: Start your Node.js server and navigate to /api-docs in your browser to view the Swagger documentation.

In our project the base url is the gateway url and the url is accessing from env file.

Api.yaml file

A screenshot of a computer program

Description automatically generated

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