

MERN Stack Assignment 3

1.What features does Swagger offer?

Swagger is a set of open-source tools for designing APIs using a common language and enabling the development across the whole API lifecycle including documentation, design, testing and deployment. Swagger framework provides a set of tools that helps programmers generate client or server code and install self-generated documentation for web services.

The major Swagger tools include:

- 1.Swagger Editor: - It is a browser-based editor where we can write Open API specifications.
- 2.Swagger UI: - It renders Open API specifications as interactive API documentation.
- 3.Swagger Codegen: - It generates server stubs and client libraries from an Open API specification.

2.How does API testing benefit you?

API testing is a type of Software testing which verifies Application Programming interfaces (APIs).

API testing benefits in the following different ways:

1. API testing confirms the application's performance, functionality, security and reliability are as expected.
2. It has the advantage of having access to the application without a user interface or users to interact with the system.
3. API testing consumes far less time than the functional GUI testing.
4. API testing is technology independent. It exchanges data using XML or JSON.
5. It helps in removing vulnerabilities in the code and it reduces testing cost.

3. How do we include an API in Swagger?

Swagger API platform could be either in YAML or JSON format.

To include an API in Swagger:

First, we have to create a YAML file in which we will write the code like:

```
paths:
  /:
    get:
      summary:
      description:
      responses:
```

here '/' is the endpoint and 'get' is the method. We can change these things as per the requirement. Summary and description are used to tell what type of API it was. Responses are nothing but the things which will appear in swagger when we click on execute in swagger.

4.In Swagger UI, how can we submit custom headers with requests?

We can submit custom headers with requests by writing code which includes parameters and required is set to true.

Here is an example which shows how to add custom header parameter to the requests:

```
paths:
  /user/{id}:
    get:
      summary:
      description:
      parameters:
        name: id
        in: path
        required: true
        schema:
          type: integer
          format: int64
      responses:
        200:
          description:
```

5.How should we use Swagger to produce static docs?

To produce static documents like HTML documents, first go to the swagger editor. Then click on the File option in the top menu bar and then select import file option. After importing the file click on Generate client in the top menu bar and then select HTML to generate static HTML documentation. Swagger tools take the hard work out of generating and maintaining API static docs, ensuring documentation stays up to date as API evolves.