**API TESTING**

**What is API**

API is application programming interface that allows to communicate between two pieces of codes.

API are mostly used to link our frontend and backend application.

**REAL LIFE EXAMPLES:**

1.Login with google functionality.

2.API of openweatherapp tells weather.

**API are of two types:**

1.Simple Object Access Protocol (SOAP)

2.REST API

SOAP API is complex and REST API is most commonly used due to following reasons:

1.**Uniform interface**: As client and server communicate through API so there must be an uniform interface.

2. **Stateless** : It means server do not remember anything about the user who is using it.

**What is API testing?**

API testing is testing the working the API.

**Need** of API testing is that as our code is very much dependent on API so, API testing is must in order to work our site properly.

There are different types of request :

1.**GET**: It is used when we want to receive the data.

2.**POST**: It is used when we want to create data.

3. **PUT**: It is used when we want to update our data.

4.**DELETE**: It is used when we want to delete our data.

**Authorization in API**

Sometimes API is not accessible to all the user, for example if we want to create a github repository using API all the user will have different tokens corresponding to their github account in which they want to create repository.

So user has to authorize it by providing token in the bearer token and the account to which that token will be belonging , new repository will be created in that account.

**Data driven API testing**

If we want to send multiple data along with the request body , we can use data driven API testing.

In this data is written in the excel sheet and that excel sheet is linked with the collection and the number of iteration we will provide that many rows it will fetch from the excel sheet and test the API for that many cases.

**API chaining**

Sometimes one request output is the input for the other request . in order to solve this we have to chain our requests.

In postman there is pre script and test script

Pre script runs before the request and test script runs before the request.

Lets assume req1 output is input for req2

We will declare a global variable and in test script of req1 we will change the value of the variable with the output of the request. And in req2 we will pass that variable.