**What is Rest?**

Rest is basically an architecture which is used for the computer system to communicate across the web all over the world.

Rest is an Representational State Transfer ie it represents the overall communication between computer system and web.

In this architecture the client and the server are independent of each other.The code can be changed at anytime without affecting client and the server.

**How does the Rest Works?**

Usually Client sends a request with domain name to the DNS the DNS from there get ip address corresponding to the domain name request and send the request to the server hosted on the ip address the server from there then shows the client the default html page in this way the communication get’s established between the client and the server.

Then further client demand’s the pages then server responses it accordingly.

This is how the Rest works.

**HTTP**

Http is basically an stateless protocol which is used to communicate between client and server.

Using http the request is send from the client to the server and in return the response is received from server to the client.

There are basically 4 HTTP models/methods which are involved in doing communication between client and server.

1. **GET**

GET is used request data from the specified resource.

Get request remain in the history of an browser.

It cannot be used to pass the confidential and sensitive data.

It is used only to request the data and not modify the data and also has the length restrictions.

Data is visible in the url to the user

**2) POST**

POST is used to create to send the data to the server to create/update the resource.

POST request are never cached and also do not remain in the browser.

It can also carry confidential and sensitive data.

Data is invisible in the url to the user

**3) PUT**

It is almost the same as POST method but the difference between the post and put is that if we call the put request multiple times then it will produce the same output every time but in case of post it’s not the same.

**4) DELETE**

It is used to delete the specified resources.

**HTTP STATUS CODE**

Status code is the code which shows the current status of the request made by client to the server and vice versa.

It Generally has some id and the status code. Given below are some of the status code

|  |  |
| --- | --- |
| **STATUS CODE** | **Meaning** |
| 200 (OK) | This is for standard response for successfully HTTP requests. |
| 201 (CREATED) | standard response for an HTTP request that resulted in an item being successfully created. |
| 204 (NO CONTENT) | This is the standard response for successful HTTP requests, where nothing is being returned in the response body. |
| 400 (BAD REQUEST) | The request cannot be processed because of bad request syntax, excessive size, or another client error. |
| 403 (FORBIDDEN) | The client does not have permission to access this resource. |
| 404 (NOT FOUND) | The resource could not be found at this time. It is possible it was deleted, or does not exist yet. |
| 500 (INTERNAL SERVER ERROR) | The generic answer for an unexpected failure if there is no more specific information available. |