1. REST OF THE API :--

Q -1WHAT IS THE REST OF THE API .

Q-2WHAT IS THE FULL FORM OF THE REST API

Q-3WHY WE USE THE REST API

2:-QUESTION 1:- WHA IS THE REST API?

ANSWER : AN API IS A SET OF PROGRAMING INSTRUCTOR FOR ACCESING A WEB BASED SOFTWARE APPLICATION

IN OTHER WORD - A SET OF COMMENDS USE BY THE INDIVIDUAL PROGRAM TO COMMUNICATE WITH ONE ANOTHER DIRECTLY AND USE EACH OTHER FUNCTION TO GET INFORMATION

QUSETION2:- FULL FORM OF THE REST API?

ANSWER : REPRESTATION STATE TRANSFER .REST HAS BECOME A LOGICAL CHOICE FOR BULIDING APIs. **With the help of this a user can command and interact with cloud services.**

**QUESTION :- WHY WE USE THE API?**

WITH HELP OF THE API THE LIFE EASY FOR A DEVELOPER BECAUSE DEVELOPER DESIGN CODE EASILY .AN API CONTROL THE HARDWARE AND SOFTWARE

SUCH THAT IF A USER WANT TO MAKE THE ANY APP IN THE IOSs OPERATING SYSTEM SO APPLE ‘IOS PROVIDE THE MANY APIs TO HELP FOR MAKING THE APPLICATION

EX. LIKE A DEV. WANT THE FUNCTIONALITY OF THE CAMERA IN THE MOBILE PHONE ETC. THE DEV . CAN USE INBULID API FOR THIS

IT IS MORE HELPFUL FOR CHECKING THE WEATHER AT ANY PLACE

like if we talk about the only on API is basically called that application interface whenever A client or user want to interact on the server so so its a more powerful on interacting server side At the old time whenever a developer designing the any code they always has the many difficulties in the developing in the software and consuming too much time for developing a software

LIKE -: FACEBOOK AND GOOGLE IS ALSO MANY APIs MEANS WITHOUT CREATING A NEW ACCOUNT A USER GO TO NEXT.

REST WEB SERVICES ARE TWO TYPES:-

1 SOAP (SIMPLE OBJECT ACCESS PROTCOL) WHICH IS XML BASED WAY

Next topic rest assured :--- this is the liberary tools for the rest api automation .it is the java based lib. Also to design the web services. This is transfer the message or etc form the server side and validate to http response

* Client server architecture :-- we simply say about it is path for sending the information

For client if we talk about old era we usually fetch the inform. By the newspaper like regional or not reg. but we fail to fetch the real inform. But in the age of the com. We talk about client on client server side and server on client server side. Now we say clearly a user can update with real time inform.

http protocol b/w. client and server :----

mainly it is the mediator between system also medium of the communication

it is in the xml and json and response on the base of both formatted , server responses

http req—it is the packet of inform. that helpful for communication something from to one computer to another if we talk about on this all inform. send in the form of binary by the client on the server

* ***Resource URL****: http://restapi.demoqa.com/utilities/weatherfull/*
* ***Parameter:****city/cityName=city/<NameFoTheCity>*

[*http://restapi.demoqa.com/utilities/weatherfull/city/hyderabad*](http://restapi.demoqa.com/utilities/weatherfull/city/hyderabad)

REQUEST LINE ------in this we use the token of get and put followed by req. URI and then by the http protocol

Request header have the additional information such that req. method client ip ,client port

Request body ------- under filling

HTTP RESPONSE--- send information from server to client

Response status line is in the three part

1. *HTTP Protocol Version*
2. *Status Code*
3. *Reason Phrase*

It is clearly visible that the ***Status Line***has***;following information:***

* *HTTP Protocol Version as****(HTTP/1.1)***
* *Status Code as****200***
* Status Message as **OK**

response body --- it is have the information that is required by the client

client -server architecture style---- if show thw model of application on the client and sever . it also says like front end and back end means front end is user and back end is the data base .

a server serve the information to many client and a client can use different technologies

STATELESS--- in this s server have not the context of the client on the previous request basics

UNIFORM INTERFACE--------------------The uniform interface constraint is fundamental to the design of any *REST* service. The uniform interface simplifies and decouples the architecture, which enables each part to evolve independently. The four guiding principles of this interface are:

* *Identification of resources*
* *Manipulation of resources through these representations*
* *Self-descriptive messages*

***Layered System======A layer should not know about the existence of other layers apart from the layers that it directly interacts with.***

CODE ON DEMAND—IT IS THE OPTIONAL A DEVELPOR CAN EXTEND OR CHANGE THE CODE IN THE FORM OF APPLET OR SCRIPT

WHAT IS THE RSET ARCHITECTURAL ELEMENTS?

---WHILE WE A RESQUEST TO THE SERVER AND SERVER SEND THE INFORM. IS CALLED RESOURCE

ELEMENT ---RESOURCE , RESOURCE INDENTIFIER,REPRESENTATION,REPRESENTATION METADATA

RESOURCE --- INFORMATION STORE ON THE SERVER FOR THE CLIENT

RESOURCE ----- IT IS CALLED THE COMPLETE URL BECAUSE URL IS AS SHOW THE ID..

REPERESNTATION=== A RESOURCE IS THE ACTUAL DATA THAT IS STORE IN THE FROM OF AN XML AND JSON FORMAT

REPERSENTATION METADATA===