Task #1 Explain How The Web Works ? and Explain What is “client server model”? .

How the web works:

- When you type or click a URL into your browser, The browser goes to the DNS (Domain Name System) server,DNS checks the IP address for the server that hosts your website.

- The browser sends an HTTP request message to the server, asking it to send a copy of the website to the client. This message, and all other data sent between the client and the server, is sent across your internet connection using TCP/IP.

- If the server approves the client's request, the server sends the client a "200 OK" message, which means "Of course you can look at that website! Here it is", and then starts sending the website's files to the browser as a series of small chunks called data packets.

Client-server model: is a distributed application structure that partitions tasks or workloads between the providers "google" of a resource or service called servers, and service requesters "users" called clients. Often clients and servers communicate over a computer network on separate hardware, but both client and server may reside in the same system. A server host runs one or more server programs, which share their resources with clients. A client usually does not share any of its resources, but it requests content or service from a server. Clients, therefore, initiate communication sessions with servers, which await incoming requests.Examples of computer applications that use the client-server model are email, and the World Wide Web.

Task #2 Explain what are class and object in OOP ? and what is the difference between them.

Class and object in OOP

-A Class is a detailed description, the definition, and the template of what an object will be. But it is not the object itself. Also, what we call, a class is the building block that leads to Object-Oriented Programming. It is a user-defined data type, that holds its own data members and member functions, which can be accessed and used by creating an instance of that class. It is the blueprint of any object. Once we have written a class and defined it, we can use it to create as many objects based on that class as we want.

-A Object is an instance of a class. All data members and member functions of the class can be accessed with the help of objects. When a class is defined, no memory is allocated, but memory is allocated when it is instantiated.

difference between them

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| Class | Object |
| -Class is used as a template for declaring and creating the objects | -An object is an instance of a class. |
| When a class is created, no memory is allocated. | Objects are allocated memory space whenever they are created. |
| -The class has to be declared first and only once. | -An object is created many times as per requirement. |
| -A class can not be manipulated as they are not available in the memory. | -Objects can be manipulated. |
| -A class is a logical entity. | -An object is a physical entity |
| -It is declared with the class keyword. | -It is created with a class name in C++ and with the new keywords in Java. |
| Class does not contain any values which can be associated with the field. | -Each object has its own values, which are associated with it. |
| A class is used to bind data as well as methods together as a single unit. | -Objects are like a variable of the class. |