**How does web work?**

The web, short for World Wide Web, is a network of interconnected documents and resources that are accessible via the Internet. The web is built on a set of protocols and standards that allow computers and devices to communicate with each other and exchange information. Here's a high-level overview of how the web works:

1. The web consists of web servers and clients: Web servers are computers that store and serve web pages, while clients are computers or devices that request and display web pages.
2. Web pages are written in languages such as HTML, CSS, and JavaScript: HTML (Hypertext Markup Language) is used to structure and display the content of a web page, CSS (Cascading Style Sheets) is used to define the visual layout and appearance of the page, and JavaScript is used to add interactivity and dynamic behavior to the page.
3. When a user types a web address (or URL) into their web browser, the browser sends a request to the web server: The web address specifies the location of the requested web page on the server.
4. The web server responds to the request by sending the web page back to the client: The server sends the HTML, CSS, and JavaScript code that makes up the web page.
5. The client's web browser interprets the code and displays the web page: The browser renders the HTML content, applies the CSS styles, and executes any JavaScript code to create a dynamic user experience.
6. Users can interact with the web page by clicking links, submitting forms, and triggering other actions that send new requests to the server: This allows them to access additional web pages, submit data, or perform other tasks on the web.

**Architectural diagram of a web application**

Third Party Service

Database

Client Side

Web Browser

Business Layer

Data Layer

Back End

Front End

Presentation Layer

There are three layers of a 3-Tier architecture:

1. Presentation layer / Client Layer: The client-side component of a web application architecture enables users to interact with the server and the backend service via a browser. The code resides in the browser, receives requests and presents the user with the required information. Commonly used frontend technologies are HTML, CSS, React, etc.
2. Application Layer / Business Layer: The server-side component is the key component of the web application architecture that receives user requests, performs business logic and delivers the required data to the front-end systems. It contains servers, databases, web services etc. Commonly used backend technologies are Node JS, Java, Python, etc.
3. Data Layer: A database is a key component of a web application that stores and manages information for a web app. Using a function, you can search, filter and sort information based on user request and present the required info to the end user. They allow role-based access to maintain data integrity.  For structured data, SQL-based databases are a good choice. It suits financial apps wherein data integrity is a key requirement. To handle unstructured data, NoSQL is a good option. It suits apps wherein the nature of incoming data is not predictable.