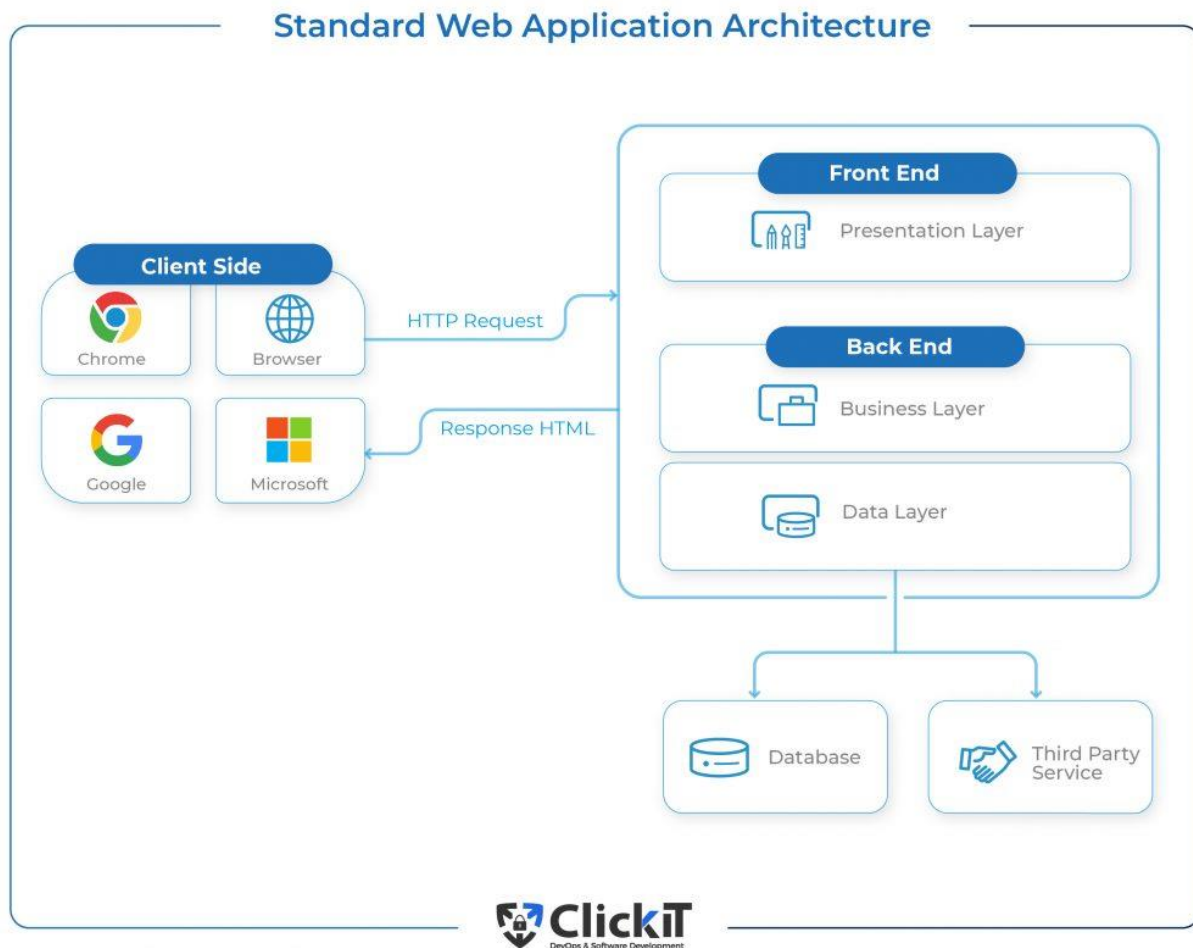


Web Application Architecture

A web app architecture provides a layout with all the software components (databases, applications, middleware) and how they interact with each other.

Components

1. Web browser – client-side component how the user interacts with the application
2. Web server – backend component processes the users requests
3. Database server – stores required data for the application



This 3-tiered architecture is more secure than a direct 2-tier architecture because the client does not have direct access to the data and instead the data access is managed through a DBMS in the application layer

Application layer: Web server

Web servers use HTTP along with other protocols to listen to user request via a web browser

Hardware web server – a computer with internet connection with web server software and web app components such as images, HTML docs, JS files, and more

Software web server – is software that understands URLs and HTTP. Users can access it through domain names and receive requested content

Application Layer: Server-Side component

The server-side receives user requests, performs business logic and delivers the required data to the front-end systems. It contains servers, databases, web servers and more

Commonly used technologies include Node.js, java, python, PHP, GO, Ruby, and .NET

Application Layer: Application Programming Interface

APIs are a concept that enables developers to access certain data and functions of a software. And it allows apps to communicate with each other.

Application Layer: Server / Cloud instance

A cloud instance is a virtual server instance that is built, delivered and hosted using a public or private cloud and is accessible over the internet. It can be moved or deployed across multiple instances on a single server.

Data Layer: Database

A database 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 information to the user. They allow role based access to maintain security