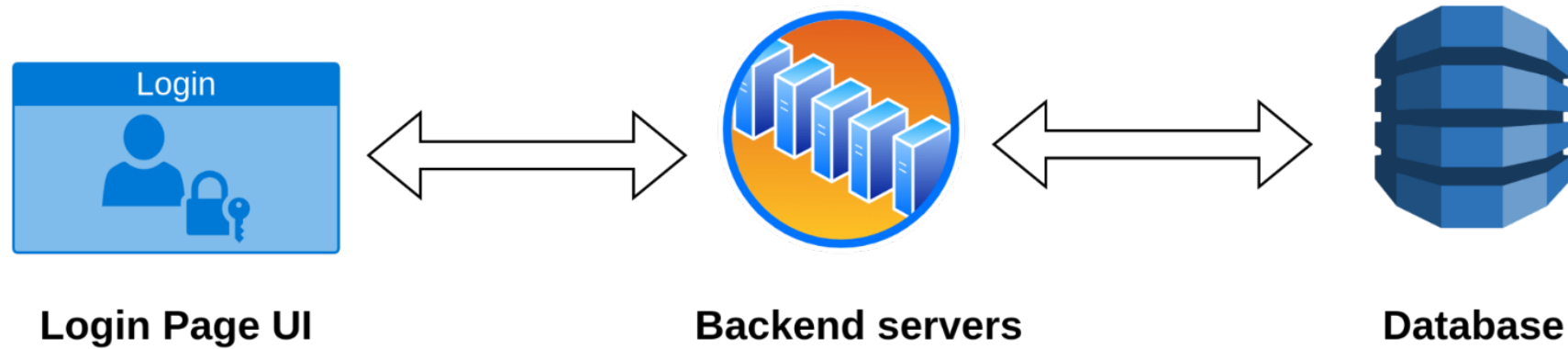# Backend Development

Agenda

In this session, we will cover:

- Backend as the brain of an application
- Steps to create the backend of an application
- Platform for running backend application
- Backend interacting with frontend

Backend as the brain of an Application

- **Backend** is considered the brain of the application since all the **Business Logic** is implemented in this layer/component.
- For eg. once we submit the login form along with the filled data to the backend server, it's the backend's responsibility to validate the credentials and provide the required access.

Backend as the brain of an Application

Login Page UI   Backend servers   Database

Steps to create Backend of an Application

- Backend code runs on the **server.** So we must choose the server-side languages to build the backend logic of the application.

- First, we design the backend logic considering various requirements of the application.

- We can design the logic using any server-side language like Java, Python, Node JS, Golang, etc.

- Once we build the backend logic, then we deploy the code on Servers for serving requests.

Platform for running Backend application

- **Backend** code runs on the **server**.

- A **Server** is nothing but a computer or a group of computing devices.

- The Server processes requests from the UI/ client and returns the response after processing.

- The **Server** compiles the backend code and provides an environment to run the code for serving incoming requests from UI.

Backend interacting with Frontend

- Backend interacts with Frontend using a programming link called API (Application Programming Interface)

- API is an interface that allows two different applications to interact.

- Popular API Protocols used are:
    - REST API
    - g-RPC
    - GraphQL
    - SOAP

Summary

A brief recap:

● Backend is considered the brain of web applications where the business logic is implemented.

● Backend runs on the server and interacts with Frontend using API.

● Java, Python, Node JS, etc. are a few server-side programming languages.