

# FSD-C-WE-T-B23

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## Full Stack Development

Day - 1

### Topics Covered

- ✓ What is Full Stack Development?
- ✓ What is Frontend, Backend & Databases?
- ✓ Introduction to web Browser JavaScript V8 ✓ Evolution of HTTP, HTTP Methods -- Evolution of HTTP
- pending ✓ How the Server looks at the URL
- ✓ Request & Response cycle
- ✓ Browser js vs Node js

### What is Full Stack Development?

Full Stack Development is an end-to-end development of a web application.

- end-to-end means from the Frontend to the Backend and the Database [ Components of a web application ]

### What is Frontend, Backend & Databases?

- Frontend: The part of the web application that the user interacts with. It is the User Interface(UI) of the web application.
- Backend: This is where the processing of the web application happens.
  - It has the following components:
    - Server: Listens to the incoming requests and sends the response.
    - Application: The logic of the web application + API (Application Programming Interface).
    - Database: The storage of the web application.
- API
  - Application Programming Interface
  - It is a set of rules that allows one software application to talk to another software application.
- Restful API
  - Representational State Transfer
  - It is an architectural style that defines a set of constraints and properties based on HTTP.
- HTTP
  - HyperText Transfer Protocol
  - It is an application layer protocol that is used to transfer data over the web.

- HTTP Methods
  - GET: To get the data from the server.
  - POST: To create the data on the server.
  - PUT: To update the data on the server.
  - PATCH: To partially update the data on the server.
  - DELETE: To delete the data on the server.
- How the Server looks at the URL
  - The server looks at the URL in the following way:
    - Protocol: `http://`
    - Domain: `www.google.com`
    - Port: `:80`
- Request & Response cycle
  - Request: The client sends a request to the server.
  - Response: The server sends a response to the client.
- JavaScript
  - JavaScript is a programming language that is used to make the web pages interactive.
  - Language of the web.
- Browser js vs Node js
  - Browser js: JavaScript that runs in the browser.
  - Node js: JavaScript that runs on the server.