**Full Stack Development** refers to the practice of developing both the **frontend** (client-side) and **backend** (server-side) components of a web application. A **Full Stack Developer** is skilled in working with technologies that span across the entire software stack, allowing them to build complete, end-to-end solutions.

**Components of Full Stack Development**

1. **Frontend (Client-Side)**:
   * Responsible for the visual and interactive aspects of a web application.
   * Technologies:
     + HTML, CSS, and JavaScript (core web technologies).
     + Frameworks/Libraries: React, Angular, Vue.js.
2. **Backend (Server-Side)**:
   * Handles the application's logic, database interactions, and APIs.
   * Technologies:
     + Programming languages: Node.js, Python, Java, Ruby, PHP.
     + Frameworks: Express.js, Django, Spring, Laravel.
3. **Database**:
   * Stores and retrieves data for the application.
   * Types:
     + Relational: MySQL, PostgreSQL.
     + NoSQL: MongoDB, Firebase.

**Example of Full Stack Development**

1. **Frontend**:
   * Users can add, view, and delete tasks through a web page.
   * Built with **React** for dynamic UI updates.

**jsx**

function App() {

const [tasks, setTasks] = useState([]);

return (

<div>

<h1>To-Do List</h1>

<ul>

{tasks.map((task, index) => (

<li key={index}>{task}</li>

))}

</ul>

</div>

);

}

1. **Backend**:
   * Provides APIs to handle task operations (create, read, update, delete).
   * Built with **Node.js** and **Express.js**.

**Javascript:**

const express = require('express');

const app = express();

const tasks = [];

app.use(express.json());

app.get('/tasks', (req, res) => res.json(tasks));

app.post('/tasks', (req, res) => {

tasks.push(req.body.task);

res.status(201).send('Task added');

});

app.listen(3000, () => console.log('Server running on port 3000'));

1. **Database**:
   * Tasks are stored in a **MongoDB** database.

javascript

Copy code

const mongoose = require('mongoose');

const taskSchema = new mongoose.Schema({

name: String,

});

const Task = mongoose.model('Task', taskSchema);

**Advantages of Full Stack Development**

1. **End-to-End Expertise**:
   * A full-stack developer can handle the entire application lifecycle.
2. **Cost-Effective**:
   * Reduces the need to hire separate frontend and backend developers.
3. **Faster Development**:
   * One person or a small team can work across both ends efficiently.