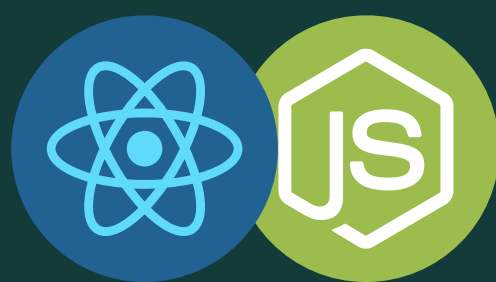




# Full Stack Development Curriculum (6 Months)



## Module 1



### Introduction to Web Development (Month 1)

- ✓ HTML & CSS Basics
- ✓ Responsive Design
- ✓ JavaScript Fundamentals
- ✓ DOM Manipulation
- ✓ Version Control (Git)
- ✓ Forms & Validation
- ✓ Introduction to Web Accessibility
- ✓ Browser Developer Tools
- ✓ Basic SEO Principles
- ✓ Introduction to Web Hosting
- ✓ Creating Simple Web Pages



## Module 2



### Advanced Front-End Development (Month 2)

- ✓ JavaScript ES6
- ✓ ReactJS Basics
- ✓ React Hooks & State Management
- ✓ React Router & Navigation
- ✓ CSS Frameworks (Bootstrap/Tailwind)
- ✓ Front-End Testing (Jest)
- ✓ REST API Integration
- ✓ Component Lifecycle in React
- ✓ Error Handling & Debugging
- ✓ State Management with Redux
- ✓ Optimizing Front-End Performance



## Module 3



### Back-End Development (Month 3)

- ✓ Node.js Introduction
- ✓ Express.js Framework
- ✓ RESTful APIs
- ✓ Authentication & Authorization (JWT, OAuth)
- ✓ Back-End Testing (Mocha)
- ✓ Asynchronous Programming (Promises, Async/Await)
- ✓ Middleware & Error Handling
- ✓ File Handling & Uploads
- ✓ Session Management
- ✓ Caching Strategies (Redis)
- ✓ WebSocket for Real-Time Communication



## Module 4



### Database Management (Month 4)

- ✓ SQL Databases (MySQL/PostgreSQL)
- ✓ Connection Pools & Query Optimization
- ✓ Database Design & Relationships
- ✓ Database Performance Tuning
- ✓ Database Security
- ✓ Data Backup & Recovery
- ✓ Advanced Querying & Aggregations
- ✓ Database Migrations & Seeders
- ✓ NoSQL Databases (MongoDB)
- ✓ Data Normalization & Indexing
- ✓ CRUD Operations



## Module 5



### DevOps & Deployment (Month 5)

- ✓ Server & Hosting Basics
- ✓ Docker Containers
- ✓ Continuous Integration & Deployment
- ✓ Cloud Platforms (AWS, Heroku)
- ✓ Application Monitoring & Logging
- ✓ Nginx & Apache Configuration
- ✓ SSL Certificates & HTTPS
- ✓ Load Balancing & Scalability
- ✓ Environment Variables & Secrets Management
- ✓ Automating Deployments with Jenkins
- ✓ Managing Multi-Environment Deployments



## Module 6



### Final Project & Career Preparation (Month 6)

- ✓ Full Stack Project Development
- ✓ GitHub Portfolio Creation
- ✓ Interview Preparation
- ✓ Resume Building
- ✓ Soft Skills Training
- ✓ Problem-Solving Techniques
- ✓ Mock Interviews
- ✓ Collaborative Development & Team Projects
- ✓ Freelancing & Remote Work Tips
- ✓ Networking & Building Industry Connections
- ✓ Building a Personal Brand in Tech