

# JOB GUARANTEED PROGRAM

QUALITY EDUCATION FROM QUALITY PEOPLE





PROGRAM NAME

#### **FULL STACK WEB DEVELOPER**

**PROGRAM** 

QUALITY EDUCATION FROM QUALITY PEOPLE



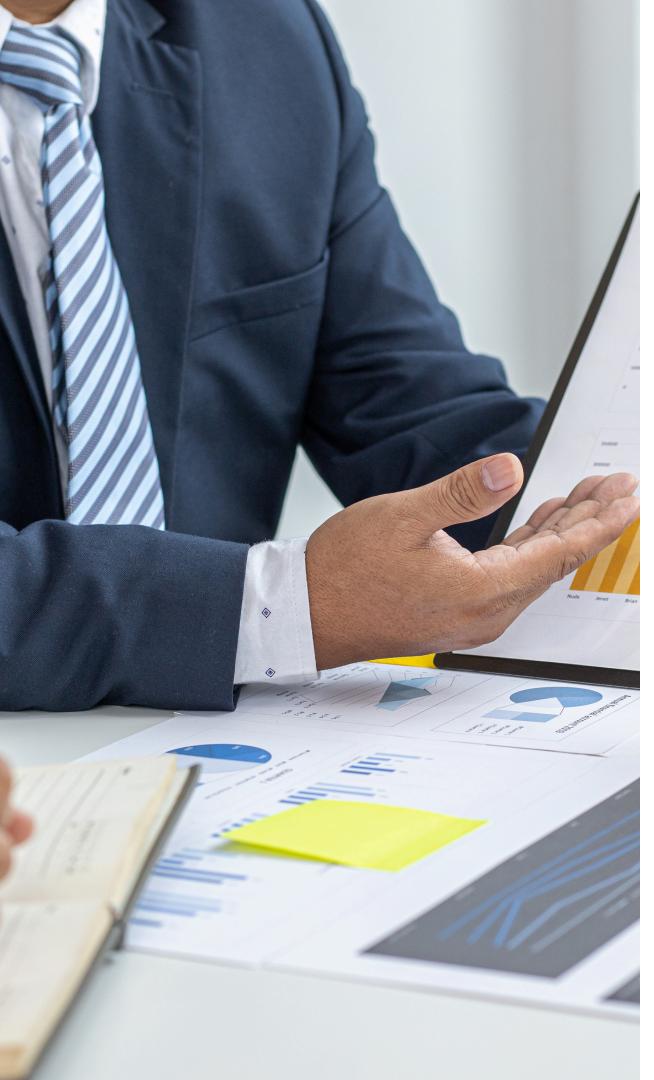


### **PROGRAM OVERVIEW**

The Full Stack Web Developer Program by Tech Learniversity is designed to equip learners with the essential skills and knowledge required to build dynamic and responsive web applications. This comprehensive program covers both front-end and back-end development, ensuring that participants gain a holistic understanding of web technologies.

#### **Duration**

140 Hours



#### **MODULE 1. WEB FUNDAMENTALS**

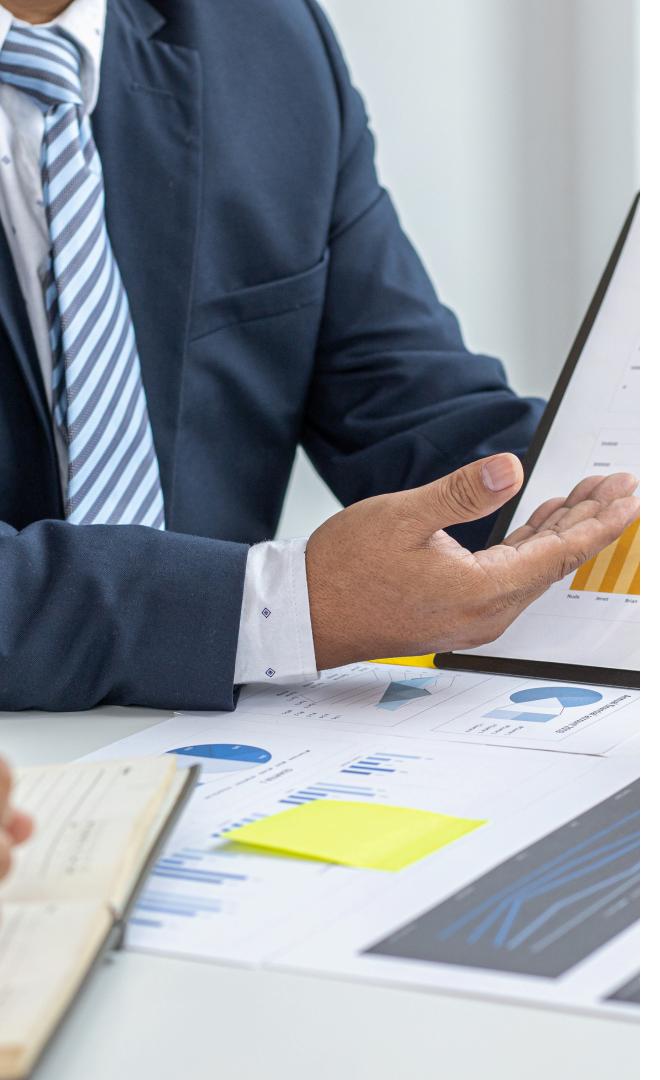
Objective: Learn the structure and styling of websites.

#### Topics:

- What is Web Development?
- Client vs Server
- How the Web Works (DNS, HTTP/S, Browsers)

#### Tools:

- Code Editor (VS Code)
- Chrome DevTools



#### **MODULE 2. HTML & CSS**

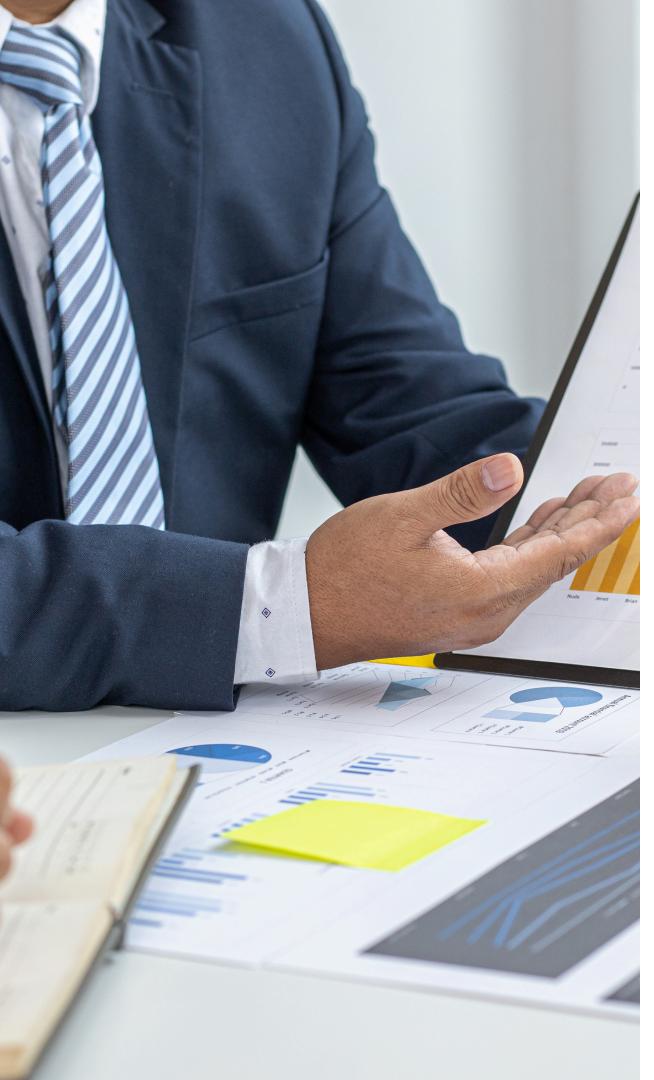
Objective: Build static web pages with proper structure and styling.

#### Topics:

- HTML5 (Headings, Links, Lists, Forms, Tables, Media)
- CSS3 (Selectors, Box Model, Flexbox, Grid)
- Responsive Design (Media Queries)
- Accessibility & Semantic HTML

#### Tools/Frameworks:

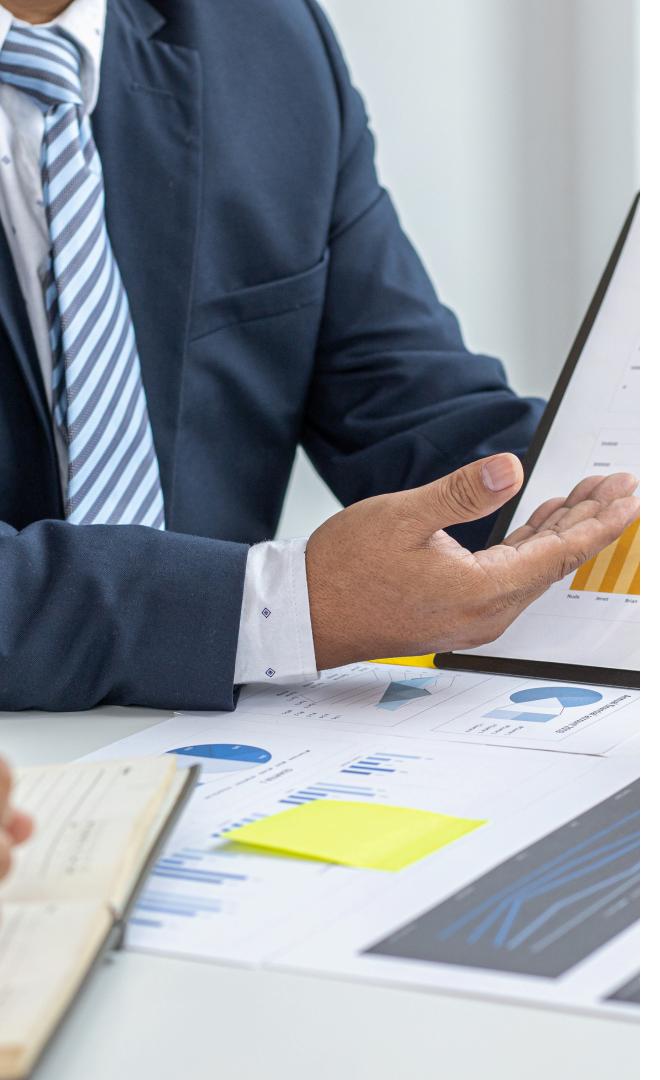
Bootstrap or Tailwind CSS (optional)



#### **MODULE 3. JAVASCRIPT PROGRAMMING**

Objective: Make websites interactive using JavaScript.

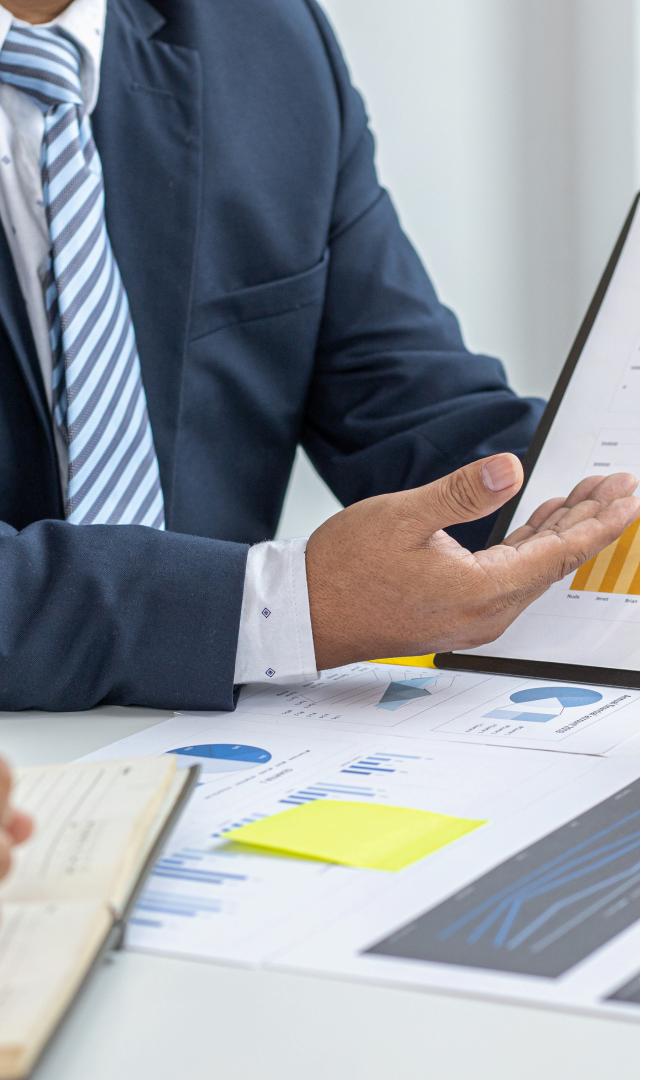
- Syntax, Variables, Data Types
- Operators, Conditionals, Loops
- Functions, Arrays, Objects
- DOM Manipulation
- Events
- ES6+ Features (let/const, arrow functions, spread, etc.)



#### MODULE 4. ADVANCED JAVASCRIPT & ASYNCHRONOUS PROGRAMMING

Objective: Handle complex logic, asynchronous tasks, and APIs.

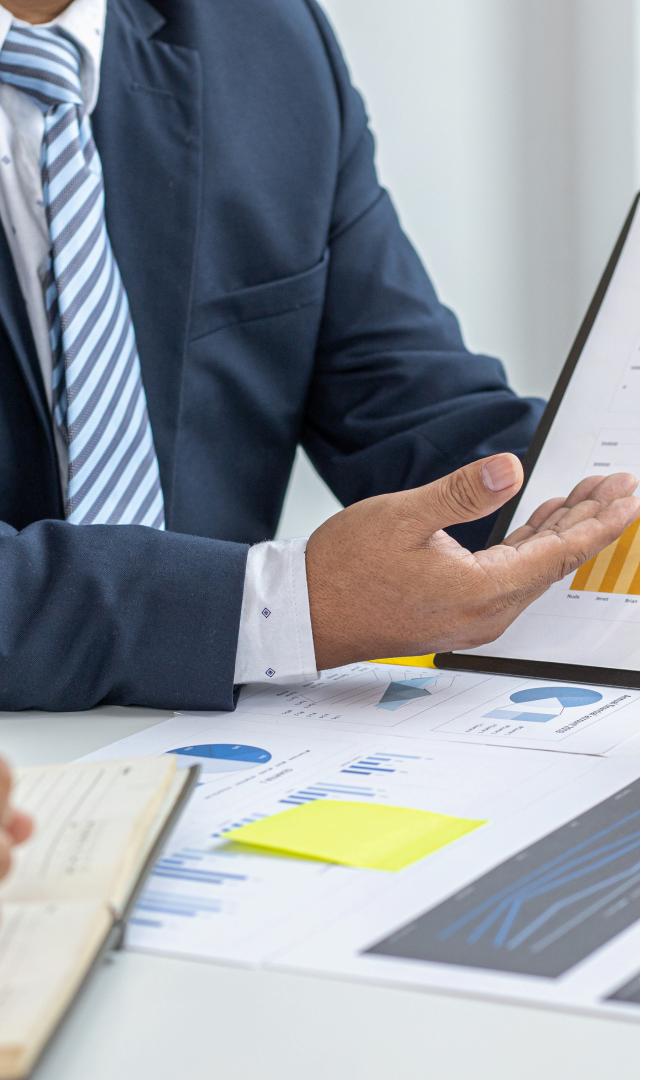
- Closures, Callbacks, Hoisting, this
- Promises & Async/Await
- Fetch API / Axios
- JSON & Local Storage



#### MODULE 5. VERSION CONTROL WITH GIT & GITHUB

Objective: Manage and collaborate on code efficiently.

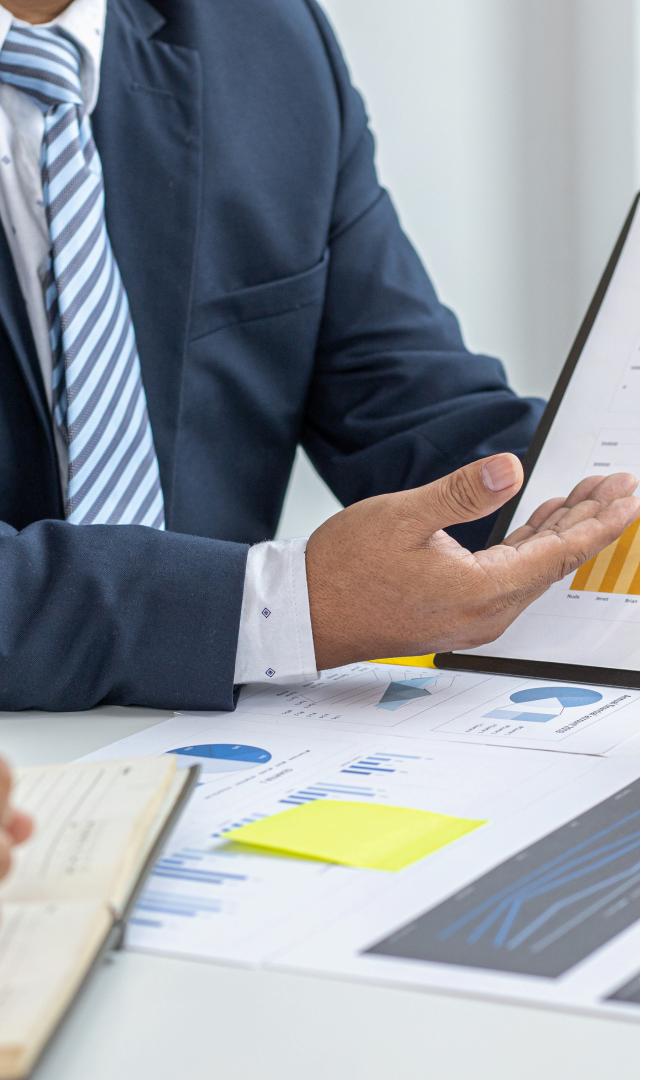
- Git (init, commit, push, pull, branch, merge)
- GitHub Repositories
- Pull Requests
- Branch Management & Conflict Resolution



#### MODULE 6. FRONT-END FRAMEWORK — REACT.JS

Objective: Build single-page applications (SPAs) using React.

- JSX, Components
- Props & State
- Event Handling
- useEffect & Lifecycle
- Forms & Validation
- Routing (React Router)
- State Management (useContext or Redux)



#### MODULE 7. BACKEND PROGRAMMING WITH NODE.JS

Objective: Set up a server and understand backend logic.

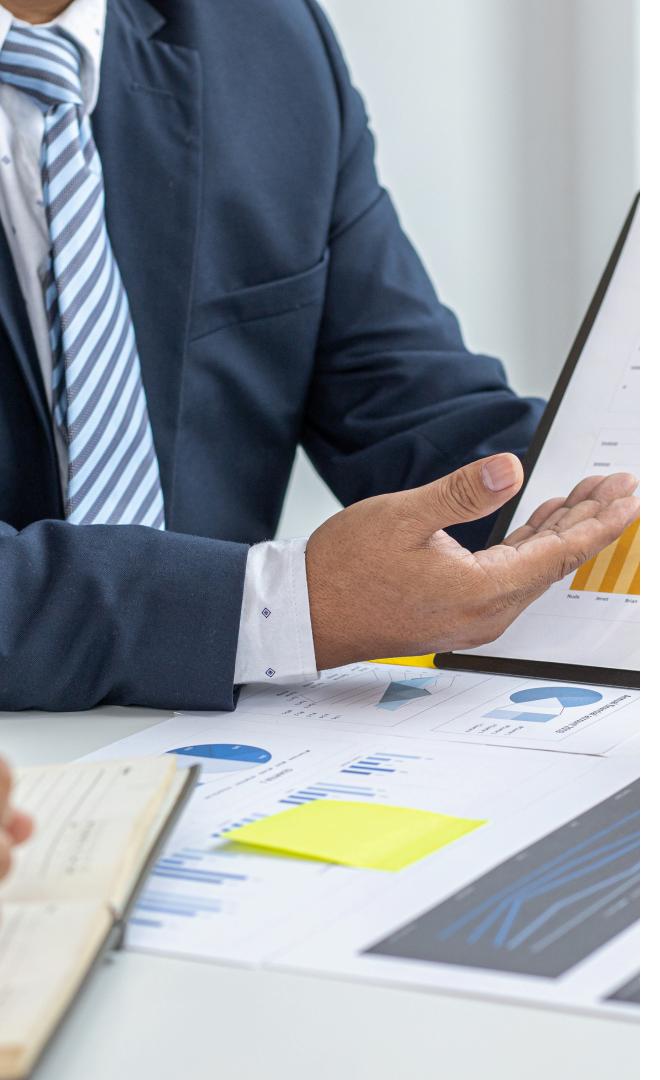
- Node.js Environment
- Core Modules (fs, path, http)
- npm, scripts
- Creating an HTTP Server
- Event Loop, Call Stack



#### MODULE 8. WEB SERVER FRAMEWORK — EXPRESS.JS

Objective: Build RESTful APIs with routing and middleware.

- Setting up Express Server
- Routing (GET, POST, PUT, DELETE)
- Middleware (custom and built-in)
- Request/Response cycle
- REST API principles
- Error Handling



#### **MODULE 9. DATABASES**

Objective: Store and retrieve data in relational or NoSQL databases.

Options:

Relational (SQL – PostgreSQL or MySQL)

- Tables, Rows, CRUD
- Joins, Constraints, Indexing

Non-Relational (MongoDB)

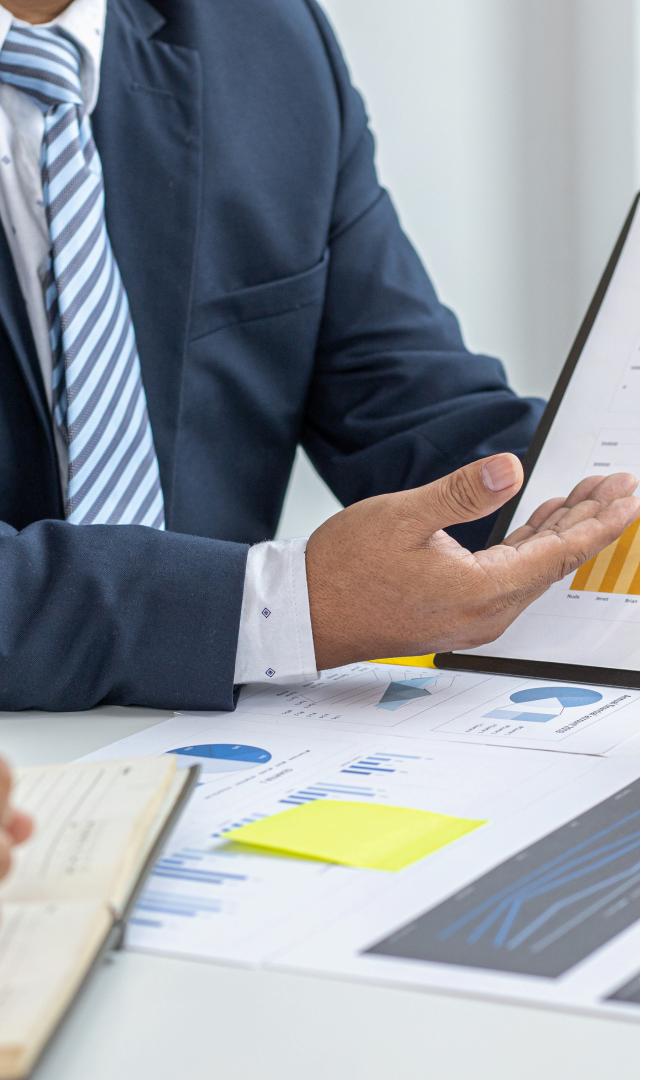
- Collections, Documents
- CRUD with Mongoose
- Schema Design
- Relationships (Reference vs Embedded)



#### **MODULE 10. AUTHENTICATION & AUTHORIZATION**

Objective: Secure your app and manage user sessions.

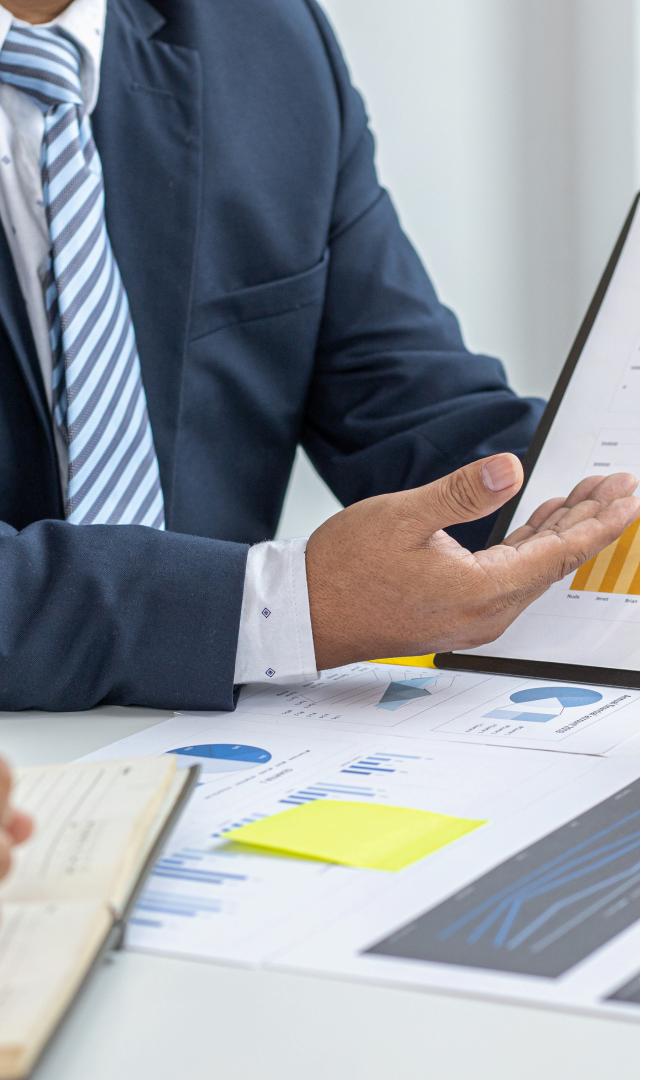
- User Login/Signup
- Hashing Passwords (bcrypt)
- Sessions & Cookies
- JSON Web Tokens (JWT)
- Role-based Access Control



#### **MODULE 11. CONNECTING FRONTEND WITH BACKEND**

Objective: Combine React (frontend) with Express API (backend).

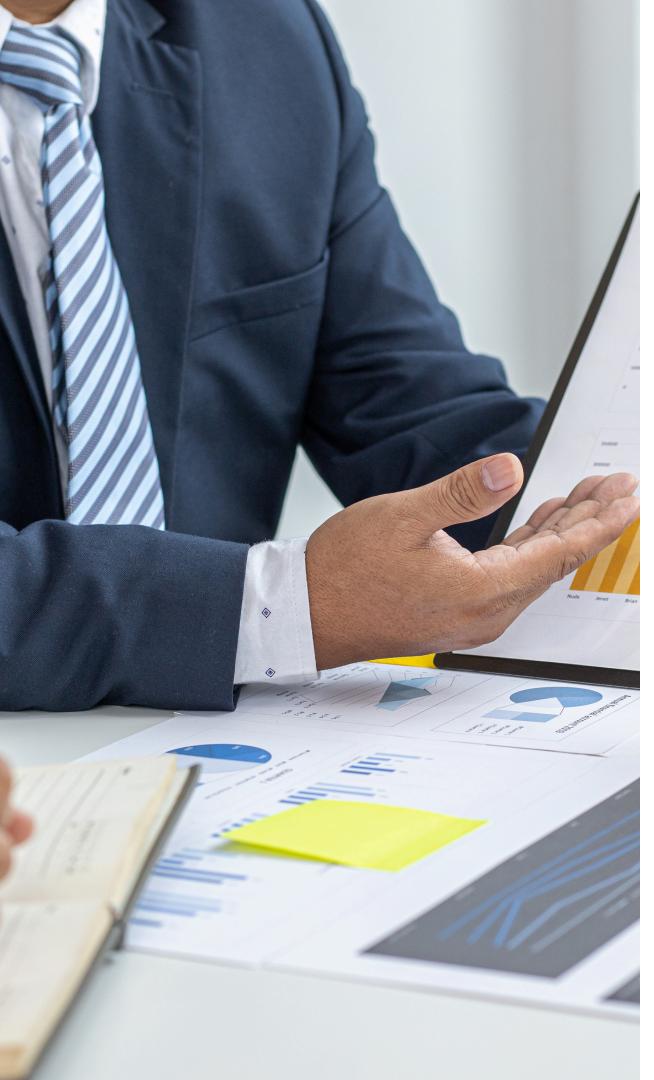
- Fetching data from API in React
- Handling CORS
- Proxy setup in React
- Environment variables
- Loading states, error handling



#### **MODULE 12. DEPLOYMENT & HOSTING**

Objective: Make your app live on the internet.

- Deploying Frontend (Netlify, Vercel)
- Deploying Backend (Render, Railway, Heroku)
- Environment Variables
- Domain Linking (custom domains)
- Basic CI/CD (GitHub Actions optional)



#### **MODULE 13. TESTING**

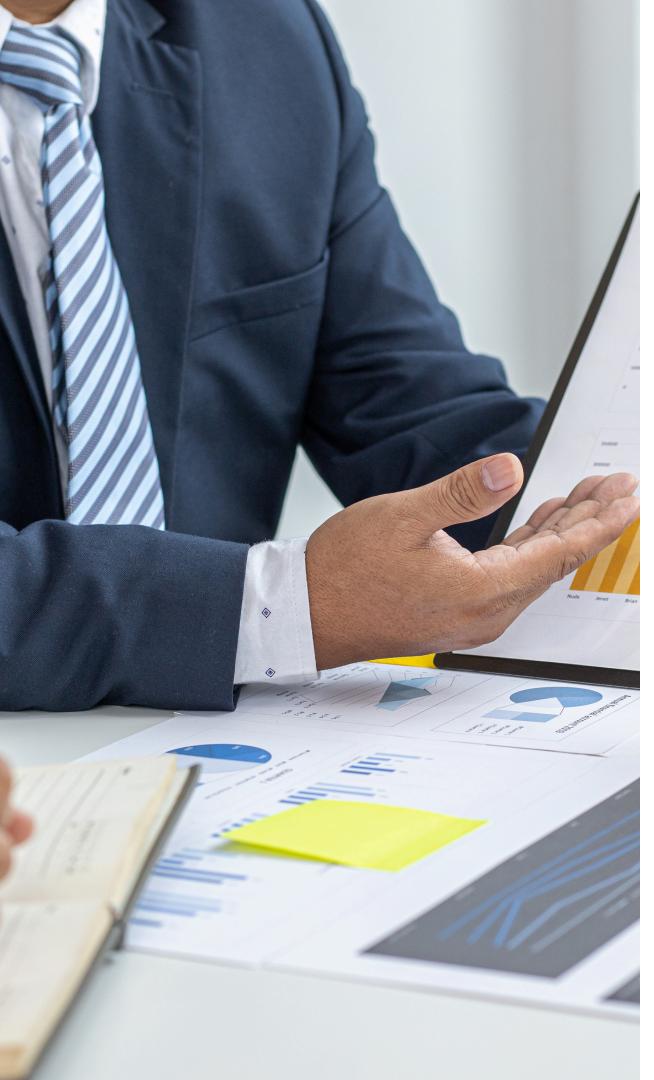
Objective: Test your code for reliability.

Frontend Testing:

- Unit Testing (Jest)
- React Testing Library

Backend Testing:

• Mocha, Chai, Supertest



#### **MODULE 14. TYPESCRIPT**

Objective: Add type safety to JavaScript for better code.

- Type annotations
- Interfaces & Types
- TypeScript in React
- TypeScript with Node.js



#### **MODULE 15. FINAL CAPSTONE PROJECT**

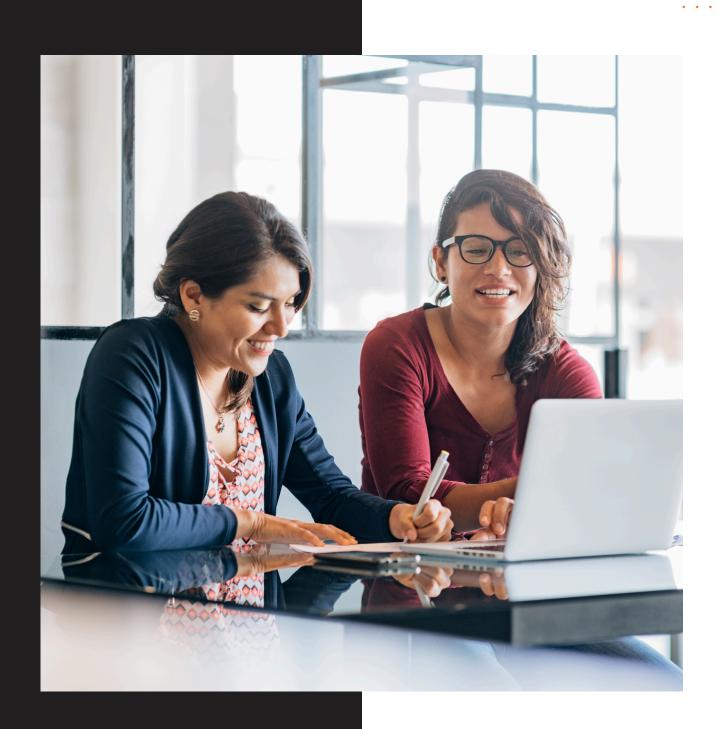
Objective: Build and deploy a full-stack project from scratch.

#### Sample Projects:

- E-commerce site
- Blog/CMS
- Social media dashboard
- Chat app (with sockets)
- Task Manager (with auth)

#### Requirements:

- Use Git & GitHub
- React frontend
- Express & Node backend
- MongoDB or SQL
- Authentication
- Responsive Design
- Deployment (frontend + backend)

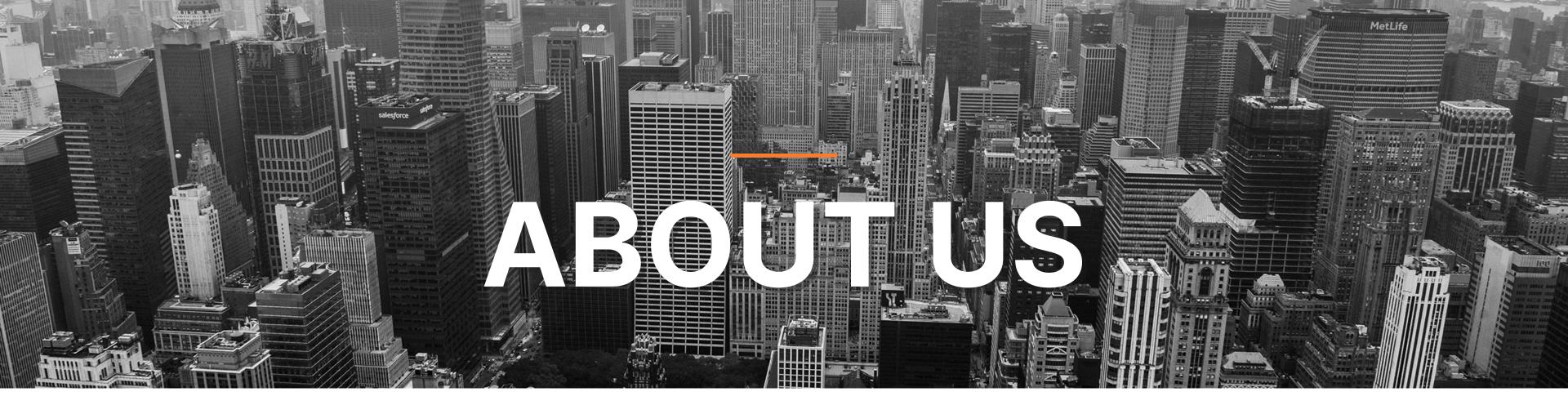


#### WELCOME TO OUR EDTECH FIRM

Choose Tech Learniversity for quality education from industry experts committed to empowering your success. Embark on a transformative educational journey with Tech Learniversity and unlock your potential for a brighter future. Together, we can create meaningful experiences that inspire growth, collaboration, and success!

#### **Company Description**

At Tech Learniversity, we are dedicated to transforming lives through accessible, cutting-edge technology education and personalized learning experiences that empower individuals to excel in the digital era.



#### **Company Description**

Tech Learniversity is a cutting-edge EdTech firm dedicated to revolutionizing global education through personalized learning experiences. We offer innovative training programs, including immersive bootcamps and next-generation AI courses, designed to equip learners with the skills needed to excel in today's competitive job market.

**More Information** 

## **OUR HISTORY**

2021-2022

Established in 2021, Tech Learniversity has quickly become a transformative EdTech firm dedicated to enhancing educational experiences for learners worldwide.

2023-2024

We have successfully developed a diverse range of services that address the evolving needs of the education industry, from K-12 to professional training.

2025

Tech Learniversity is making history by offering innovative global services that empower learners to achieve their career aspirations and thrive in a competitive job market.



# **OUR VISION**

01.

At Tech Learniversity, we envision a future where education is accessible and personalized for every learner, empowering them to thrive in a dynamic global workforce.

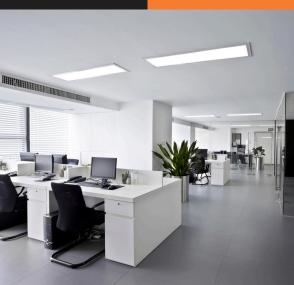
02.

We aim to be a leader in EdTech innovation, fostering a community of lifelong learners who drive positive change and contribute to a better society.

# OUR MISSION

- At Tech Learniversity, we empower learners of all ages through innovative training programs and personalized educational experiences that foster skill development and career advancement.
- Committed to diversity and inclusion, we strive to make highquality education accessible and relevant, ensuring every individual can unlock their full potential in a competitive global workforce.

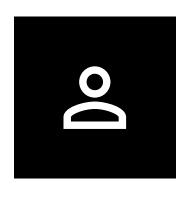








# **OUR SERVICE**



#### **Training**

Tech Learniversity provides different types of training catering to different types of students, professionals.



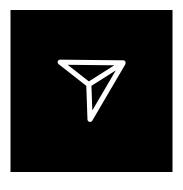
#### **Interview Preparation**

Tech Learniversity provides interview preparation services to students and professionals



#### **Placement Assistance**

Tech Learniversity provides placement assistance services.



#### Jobs

Tech Learniversity provides job-related services to student, professionals and companies.

# M SENDIL KUMAR

FOUNDER, DIRECTOR & CEO

Under the visionary leadership of our Founder, Director, and CEO, M Sendil Kumar, we are transforming education through technology. With over 15 years of expertise in the IT field, M Sendil Kumar is passionate about making quality education accessible to all.



# **CONTACT US**

Get in touch with Tech Learniversity

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