Syncsas Technologies

CIN: U72900DL2016PTC304756

Delhi - 110031, India
Email:
contact@syncsas.com
Website: www.syncsas.com

Full Stack Developer Internship Syllabus

Duration: 6 Months (26th December 2024 - 26th June 2025)

Phase 1: Training and Skill Development (2 Months)

Week 1-2: Frontend Development Basics
- HTML5: Structure of web pages, semantic tags, forms, and accessibility.

- CSS3: Styling techniques, layouts (Flexbox, Grid), animations, and media queries.

- JavaScript Basics: Variables, data types, loops, functions, DOM manipulation.

Week 3-4: Advanced Frontend Development
- JavaScript (Advanced): ES6+ features, closures, promises, async/await.

- Frontend Framework (React):

  - Components, props, and state.

  - React Hooks and lifecycle methods.

  - Basic routing and event handling.

- Version Control: Git basics, branching, and merging.

Week 5-6: Backend Development Basics
- Node.js: Introduction to server-side programming, working with HTTP, building APIs.

- Express.js: Setting up a web server, creating RESTful APIs, middleware.

- Databases:

  - SQL (MySQL/PostgreSQL): CRUD operations, joins, indexes.

  - NoSQL (MongoDB): Collections, documents, queries.

Week 7-8: Full Stack Integration
- Connecting Frontend and Backend.

- Building small projects using React, Node.js, and MongoDB.

- Introduction to testing tools (Postman for API testing, Jest for unit testing).

Syncsas Technologies

CIN: U72900DL2016PTC304756

Delhi - 110031, India
Email:
contact@syncsas.com
Website: www.syncsas.com

Phase 2: Industrial Projects and Real-World Experience (4 Months)

Month 1: Project Planning and Design
- Requirement Gathering: Understanding client/project needs.

- Designing Solutions: Wireframing, prototyping, database schema design.

- Project Setup: Environment setup, creating repositories, task allocation.

Month 2: Frontend Development
- Developing responsive and interactive UI using React.

- Implementing authentication (e.g., JWT-based login/logout).

- State management using Context API/Redux.

Month 3: Backend Development
- Building robust REST APIs using Node.js and Express.

- Secure data handling (validation, authentication, authorization).

- Advanced database operations (relationships, transactions).

Month 4: Testing, Debugging, and Deployment
- Testing: Unit testing, integration testing, and end-to-end testing.

- Debugging: Identifying and fixing issues.

- Deployment: Deploying the project on platforms like Heroku, AWS, or Netlify.

- Documentation: Writing technical and user documentation.

Key Skills Gained During Internship
1. Proficiency in frontend and backend development tools.

2. Understanding of software development lifecycle (SDLC).

3. Hands-on experience with project management and collaboration tools (Jira, Trello).

4. Real-world experience working in teams and building deployable applications.