



## **Node JS**

**Programme Overview:** This program is designed to provide a comprehensive introduction to Node.js, a powerful JavaScript runtime environment. Participants will learn about the core features of Node.js, how to create web servers, manage packages, handle events, and much more. By the end of the program, students will have the foundational skills to start building their own Node.js applications.

**Programme Outcomes:**

- Understand the basic concepts and architecture of Node.js.
- Gain hands-on experience in creating web servers and handling HTTP requests.
- Learn to manage Node.js modules and packages using NPM.
- Develop the ability to work with Buffers, REPL, and the URL module.
- Acquire the skills to handle events and upload files in Node.js applications.

**Eligibility Criteria:**

Students who have scored more than 60% in academics and have less than 5 back logs. BTech ,MCA,BCA,BSc CS ,MSc CS students preferred .Students should have basic communication skills and passion for learning coding.

**Duration of the Programme:**

- **Total Duration:** 48 hours
- **Mode:** Online

**Course Syllabus:**

1. **Node.js Introduction**
  - Features of Node.js
  - Advantages and Disadvantages of Node.js
  - Installation
2. **REPL (Read-Eval-Print Loop)**
  - Eval
  - Loop
  - Example for REPL
3. **Modules in Node.js**
  - Core Modules
  - Local Modules
  - Third-party Modules
4. **Node Package Manager (NPM)**
  - What is NPM?
  - Installing Packages
5. **Buffer in Node.js**
  - What is a Buffer?
  - Buffer Operations
6. **Creating Web Server**
  - Creating a Web Server
  - Handling HTTP Requests
  - Server Listen
7. **Handling Events**

- EventEmitter Class
- EventEmitter Object
- 8. **Uploading Files**
  - Upload Form
  - Parsing the Uploaded File
- 9. **URL Module**
  - Built-in URL Module
  - File Server
- 10. **Node.js Conditions**
  - if
  - else if
  - else

**Certification Process:**

- Completion of all modules and assessments.
- Submission of a final project demonstrating the application of Node.js concepts learned.
- Evaluation by instructors.

**Certificate Issued By:**

- Edluments labs & Asap Kerala Certification