



**Beyond Curriculum Training  
On  
"Developers Course to Node JS"**



**Date: 16/06/2020 to 27/06/2020**

Organized by

**Narula Institute of Technology**

81, Nilgunj Road, Agarpara,  
Kolkata – 700 109

**Training Overview**

This course offers an additional value in Node JS which is an open-source, cross-platform scripting language.

**Training Objective**

To provide the knowledge of advance learning with Node JS which is an open-source, cross-platform scripting language to develop with high performance.

**Course Outcomes**

After completion of this course students will be able to

- Code with a Single programming language.
- Interact with large and Active community.
- Get the liberty to develop app.

**CONTACT PERSON**

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## **Course Content**

### **Module 1: Overview of Next Gen Java Script**

*Variable (local & global)*

*Concept of Variable Hoisting*

*Object*

*Array & Array methods*

*Function (Named, Anonymous, Arrow)*

*Different types of function parameters and Return Value Types*

*Loops (for, for-of, for-in, while, do-while)*

*Destructuring*

*Spread operator*

*Es6 Promise*

*Concept of Async and await*

*Class & Constructor*

### **Module 2: Introduction to Node JS**

*Introduction*

*What is Node JS?*

*Advantages and Disadvantages of Node JS*

*Installing Node JS on Windows*

*Node JS console*

*Creating a Node Server*

*Handling http requests*

*Understanding Request and Response and How to Handle*

*Parsing Request Bodies*

*Blocking and Non-blocking code*

*Using Node Module system*

### **Module 3: Node Package Manager**

*What is NPM?*

*Installing Packages Locally/globally*

*Adding dependency in package.json*

*Updating packages*

*Installing 3rd party packages*

*Introduce Nodemon for Autostart*

### **Module 4: Express JS**

*What is Express JS?*

*Install Express JS*

*Adding Middleware*

*Handling Different Routes*

*Parsing Incoming Request*

*Use Express Router*

*Serving HTML Pages*

### **Module 5: Template Engines**

*Why we use Template Engine?*  
*Introduce EJS Template*  
*Installing and Implementing EJS*  
*Difference between HTML and EJS*

### **Module 6: Introduce Model View Controller**

*What is MVC architecture?*  
*Understanding the flow diagram of MVC*  
*Adding controller*  
*Storing Data via Model*

### **Module 7: Database connectivity using Mongo DB**

*Create records*  
*Updating records*  
*Deleting records*  
*Sorting data*  
*Adding search filter*

### **Module 8: Database connectivity using Mongoose**

*What is Mongoose?*  
*Connecting to Mongo DB server with Mongoose*  
*Creating Schema in Model*  
*Saving Data through Mongoose*  
*Fetching records*  
*Updating records*  
*Deleting records*  
*Using Relation in Mongoose*

### **Module 9: Introduce Session and Cookies**

*What is session and Cookies?*  
*Difference between session Cookies*  
*How to store data in Session and Cookies*

### **Module 10: Adding Authentication**

*What is Authentication?*  
*How to implement Authentication?*  
*Encrypting Password*  
*CSRF Token*  
*Adding CSRF Protection*  
*Adding Flash Message*

### **Module 11: Sending Email using Send Grid**

### **Module 12: Understanding Validation**

*Server side validation*  
*Adding validation to the input field*  
*Displaying server side validation message to user side*

### **Module 13: Image Uploading**

**Module 14: API**

*What is REST API?*

*Understanding the flow diagram*

*Importance of REST API*

*Implementation of API*

*Authentication using JSONWEBTOKEN*

**Module 15: Project**