

NODE JS - LEARNING PATH

You can not learn node js directly. Having basic knowledge of JavaScript is compulsory before diving into node js.

The below are the few core fundamental topics of JavaScript which you should definitely be aware of before learning node js.

1. Variables: let, const & var

Reference -

 [Variables: let, const & var in JavaScript | JavaScript Tutorial In Hindi #3](#)

2. Strings: Properties, Methods & Template Literals

Reference -

https://www.youtube.com/watch?v=5H_RSfSfaRs&list=PLu0W_9lI9ajyk081To1Cbt2eI5913SsL&index=6&ab_channel=CodeWithHarry

3. Arrays and Objects

Reference -

https://www.youtube.com/watch?v=nIRtAF8Gu0A&list=PLu0W_9lI9ajyk081To1Cbt2eI5913SsL&index=7&ab_channel=CodeWithHarry

4. Array Destructuring

Reference

https://www.youtube.com/watch?v=ell7WcrmY1c&ab_channel=CodeWithHarry

5. Object Destructuring

Reference -

https://www.youtube.com/watch?v=k6yMQhPvbrM&list=PLwGdqUZWnOp19VX-DM4oHtmWhDfWbIFh-&index=7&ab_channel=ThapaTechnical

5. If Else Conditionals & Switches

Reference -

https://www.youtube.com/watch?v=vaZpDYOuprA&list=PLu0W_9lII9ajyk081To1Cbt2eI5913SsL&index=8&ab_channel=CodeWithHarry

EXERCISE - Program to Swap Two Numbers without using Third Variable?

6. For, While & Do while Loops

Reference -

https://www.youtube.com/watch?v=SluQlaQD4Ug&list=PLu0W_9lII9ajyk081To1Cbt2eI5913SsL&index=9&ab_channel=CodeWithHarry

7. Functions in JavaScript

Reference -

https://www.youtube.com/watch?v=dsV07zlGfc4&list=PLu0W_9lII9ajyk081To1Cbt2eI5913SsL&index=10&ab_channel=CodeWithHarry

8. Date Object: Date & Time

Reference -

https://www.youtube.com/watch?v=7QaZ4lehCfk&list=PLu0W_9lII9ajyk081To1Cbt2eI5913SsL&index=24&ab_channel=CodeWithHarry

9. Spread Operator -

Reference -

https://www.youtube.com/watch?v=8TT2gK0u2QQ&list=PLwGdqUZWnOp19VX-DM4oHtmWhDfWbIFh-&index=11&ab_channel=ThapaTechnical

ASSIGNMENT 1 -

Simple weight converter app - This would convert (Pounds to kilograms)

ASSIGNMENT 2 -

Todo List Application - Simple todo list application with features to add task, mark task as done, Edit task & Delete task

The below topics are used for “Asynchronous Programming” and these are the most important topics you know before learning nodejs

Q. In case you don't know What is Asynchronous Programming in JavaScript

Reference -

https://www.youtube.com/watch?v=SWWI1o0LT1I&list=PLu0W_9lII9ajyk081To1Cbt2eI5913SSL&index=34&ab_channel=CodeWithHarry

Q. In case you have no idea of What is API and how it works?

Reference -

https://www.youtube.com/watch?v=XGa4onZP66Q&ab_channel=ApnaCollege

10. Callback functions - Promises Basics, Promise.then() & Promise.catch()

Reference -

https://www.youtube.com/watch?v=2IPw-mWe10U&ab_channel=CodeWithHarry

11. Arrow functions

Doc reference:- <https://www.javascripttutorial.net/es6/javascript-arrow-function>

Video reference -

https://www.youtube.com/watch?v=RwIL5pXPhfs&ab_channel=CodeWithHarry

12. Fetch API

Video reference:

https://www.youtube.com/watch?v=38uPRscjXfo&list=PLu0W_9lII9ajyk081To1Cbt2eI5913SSL&index=42&ab_channel=CodeWithHarry

13. Async/Await

Doc reference : <https://www.freecodecamp.org/news/async-await-in-javascript/>

Video reference -

https://www.youtube.com/watch?v=Aylq1RRaY_k&ab_channel=CodeWithHarry

14. Error Handling & Try Catch in Javascript

Reference -

https://www.youtube.com/watch?v=BcAYvnsbmMQ&ab_channel=CodeWithHarry

ASSIGNMENT 3 - Build a weather app - In that create a simple input box to let the user enter city name and according to that fetch entered city weather forecast.

15. setTimeout & setInterval

Reference -

https://www.youtube.com/watch?v=yGU9DJ5TI8I&ab_channel=CodeWithHarry

16. Local & Session storage

Reference -

https://www.youtube.com/watch?v=xSv-9Yod83Q&ab_channel=CodeWithHarry

Note - If you're already aware of all the above mentioned JavaScript topics you're feel free to skip and directly jump into node js topics.

Node Js Topics -

1. Introduction to Node JS

Reference -

https://www.youtube.com/watch?v=IlpiLZGTWuo&list=PLwGdqUZWnOp00IbeN0OtL9dmnasipZ9x8&ab_channel=ThapaTechnical

2. Node JS Installation

Reference -

https://www.youtube.com/watch?v=mIW_8dMQaUk&list=PLwGdqUZWnOp00IbeN0OtL9dmnasipZ9x8&index=2&ab_channel=ThapaTechnical

3. Understanding the Node.js Core Modules

Reference -

https://www.youtube.com/watch?v=5uZDLL0zaWg&list=PLwGdqUZWnOp00IbeN0OtL9dmnasipZ9x8&index=5&ab_channel=ThapaTechnical

ASSIGNMENT 4 -

- a. Create a folder named temp.
- b. Create a file in it named myfile.txt.
- c. Write data into the file.
- d. Read data from that file.
- e. Append more data to the file and remember previous written data should not be lost or overwritten.
- f. Rename the file.
- g. Delete the file.

Note - All the above operations will be completed using node js synchronous file system module

4. Asynchronous File System Core Modules

Reference -

https://www.youtube.com/watch?v=CgEZYq7A9xU&list=PLwGdqUZWnOp00IbeN0OtL9dmnasipZ9x8&index=7&ab_channel=ThapaTechnical

5. Synchronous vs Asynchronous Programming in NODE JS

Reference -

<https://www.youtube.com/watch?v=rDsR1SRQwx&list=PLwGdqUZWnOp00IbeN0OtL9>

[dmnasipZ9x8&index=8&ab_channel=ThapaTechnical](#)

6. PATH Module In Node.JS

Reference -

[https://www.youtube.com/watch?v=xrj28wzHxKY&list=PLwGdqUZWnOp00IbeN0OtL9d
mnasipZ9x8&index=11&ab_channel=ThapaTechnical](#)

7. CREATE and EXPORT Our Own Modules

Reference -

[https://www.youtube.com/watch?v=GtV-_NTInLg&list=PLwGdqUZWnOp00IbeN0OtL9d
mnasipZ9x8&index=12&ab_channel=ThapaTechnical](#)

8. Understanding NPM and node_modules

Reference -

[https://www.youtube.com/watch?v=bpssxANRL54&list=PLwGdqUZWnOp00IbeN0OtL9d
mnasipZ9x8&index=13&ab_channel=ThapaTechnical](#)

9. Module Wrapper Function

Reference -

[https://www.youtube.com/watch?v=kT2mSjAcYxM&list=PLwGdqUZWnOp00IbeN0OtL9
dmnasipZ9x8&index=15&ab_channel=ThapaTechnical](#)

10. How to Our Own Web Server

Reference -

[https://www.youtube.com/watch?v=9DEW7eXEOWI&list=PLwGdqUZWnOp00IbeN0OtL9
dmnasipZ9x8&index=16&ab_channel=ThapaTechnical](#)

11. Routing | Handled HTTP Requests

Reference -

[https://www.youtube.com/watch?v=jlkkY3L1Lmw&list=PLwGdqUZWnOp00IbeN0OtL9d
mnasipZ9x8&index=17&ab_channel=ThapaTechnical](#)

ASSIGNMENT 5 -

Create a simple API in node js which will return the response as text "Welcome To Nodejs Environment."

12.Events Module and Event Emitters

Reference -

https://www.youtube.com/watch?v=DX9UUr7YKxE&list=PLwGdqUZWnOp00IbeN0OtL9dmnasipZ9x8&index=20&ab_channel=ThapaTechnical

13.Streams and Buffer

https://www.youtube.com/watch?v=ev5pgydOhT8&list=PLwGdqUZWnOp00IbeN0OtL9dmnasipZ9x8&index=21&ab_channel=ThapaTechnical

14. Understanding & Integration of Express JS

Reference -

https://www.youtube.com/watch?v=CgoD3HX1IWY&list=PLwGdqUZWnOp00IbeN0OtL9dmnasipZ9x8&index=25&ab_channel=ThapaTechnical

15.Express JS Routing

Reference -

https://www.youtube.com/watch?v=DPbw2LyqnQc&list=PLwGdqUZWnOp00IbeN0OtL9dmnasipZ9x8&index=26&ab_channel=ThapaTechnical

16. Serve HTML CSS & JS Files in Express JS

Reference -

https://www.youtube.com/watch?v=0oGnRmbW-Ws&list=PLwGdqUZWnOp00IbeN0OtL9dmnasipZ9x8&index=28&ab_channel=ThapaTechnical

17. Template Engines (Pug, hbs, EJS)

Reference -

https://www.youtube.com/watch?v=wEqMxTjI-TE&list=PLwGdqUZWnOp00IbeN0OtL9dmnasipZ9x8&index=30&ab_channel=ThapaTechnical

18.Understand the concept of REST API

Reference -

https://www.youtube.com/watch?v=ALrOcDPimWE&list=PLwGdqUZWnOp00IbeN0OtL9dmnasipZ9x8&index=63&ab_channel=ThapaTechnical

ASSIGNMENT 6 -

Create a complete CRUD of Todo Application where user can create,update, delete and read todo task.Create restful api for CRUD operation.

19.Express Router in RESTful API

Reference -

https://www.youtube.com/watch?v=URUwGA75QaE&list=PLwGdqUZWnOp00lbeN0OtL9dmnasipZ9x8&index=69&ab_channel=ThapaTechnical

20.Learn How to create MVC based pattern API

Reference -

https://www.youtube.com/watch?v=Cgvopu9zg8Y&ab_channel=PedroTech

21.Express Middlewares

Reference -

https://www.youtube.com/watch?v=JHOszqPHwMg&ab_channel=ThapaTechnical

ASSIGNMENT 7 -

Create a CRUD operation of Products where each product should contain the below mentioned details -

Product Details -

- a.Name
- b.Price
- c.Quantity
- d.Manufactured date

Now you have to CREATE, GET, UPDATE & DELETE API of product.For storing data use can use any database.Keep it simple but precise.

Note - Make sure you use the Express Route concept instead of simple node js

route.

a.CREATE API - will add product and return a response as "Product added successfully" or in case of error with msg "Product addition failed".

b.GET API - will fetch all the products details

c. UPDATE API - will update any product details by id and to make sure it will not be added as a new product rather it will update the existing product details.

d.DELETE API - will simply delete the product from list

What is a RESTful API? | Creating a REST API with Node.js

https://www.youtube.com/playlist?list=PL55RiY5tL51q4D-B63KBnygU6opNPfk_q