



**Candidate**  
Divya  
divyapbagul@gmail.com

**Position**  
Full Stack (Node + React) | EMB Global

|                   |                        |
|-------------------|------------------------|
| <b>Round name</b> | <b>Seniority</b>       |
| Hands-On          | Intermediate (1-3 yrs) |

|                            |                         |
|----------------------------|-------------------------|
| <b>Interview Date</b>      | <b>Total time spent</b> |
| 29th Oct 2025, 6:00 PM IST | 1 hour 12 minutes       |

Open playback

Interviewer credentials



AVP | 14yrs | SYNECHRON

[View full profile](#)

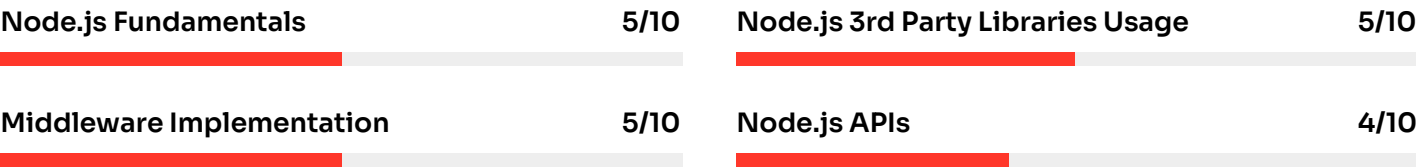
- React
- NodeJS
- Communication & Articulation
- Learnability and coachability

Must have

1 React



2 NodeJS



Good to have

1 Communication & Articulation



2 Learnability and coachability



## Questions asked

### Theory / Scenario-based questions (15)

#### Question 1 Medium

When collaborating across teams (e.g., QA, Product, Backend), how do you avoid confusion or missed requirements?

**Communication & Articulation:** Communication & Articulation **Learnability and coachability:** Understanding business case

#### Question 2 Hard

Describe how the middleware execution flow works in Express.js. How does the next() function control the pipeline, and what happens if it's not called?

**NodeJS:** Node.js Fundamentals, Middleware Implementation

#### Question 3 Medium

How does V8 handle garbage collection and what is the impact on performance?

**NodeJS:** Node.js Fundamentals

#### Question 4 Medium

What is Libuv and why does Node.js need it?

**NodeJS:** Node.js Fundamentals

#### Question 5 Medium

Explain how CORS is handled in Express. What does the cors middleware do?

**NodeJS:** Middleware Implementation

#### Question 6 Medium

How would you send emails asynchronously and ensure reliability even if the email service is down temporarily?

**NodeJS:** Node.js 3rd Party Libraries Usage

#### Question 7 Medium

How do you handle retries and backoff strategy with Axios when making API calls to unstable upstream services?

**NodeJS:** Node.js 3rd Party Libraries Usage

### Question 8

Medium

Can you explain what child processes are in Node.js and how they allow Node to perform work outside the main event loop?

**NodeJS:** Node.js APIs

### Question 9

Medium

Explain the different types of streams in Node.js.

**NodeJS:** Node.js APIs

### Question 10

Medium

How would you efficiently process a large CSV/JSON file without loading it entirely in memory?

**NodeJS:** Node.js APIs

### Question 11

Medium

How would you log request/response details using middleware without blocking the event loop?

**NodeJS:** Middleware Implementation

### Question 12

Hard

Describe different strategies for code splitting in a large React application. How would you decide between route-based, component-level, and vendor code splitting?

**React:** React Fundamentals

### Question 13

Medium

Explain the difference between useMemo and useCallback.

**React:** Hooks

### Question 14

Medium

What is the React Context API, and in which scenarios would you choose to use it instead of Redux?

**React:** React Fundamentals, Hooks

### Question 15

Easy

How does JSX get compiled under the hood?

**React:** React Fundamentals

## Coding questions (3)

### Question 1 Hard

Write the exact order of logs and briefly explain why.

```
console.log("A");
setTimeout(() => console.log("B"), 0);
Promise.resolve().then(() => console.log("C"));
process.nextTick(() => console.log("D"));
setImmediate(() => console.log("E"));
console.log("F");
```

**NodeJS:** Node.js Fundamentals

### Question 2 Medium

Create an Express middleware that performs the following:

- Logs the request details:
  - HTTP method
  - Request URL
  - Response status code
  - Total time taken to process the request (in milliseconds)
- Adds a custom response header named:
  - X-Request-Processed: true
- Your middleware should call `next()` to allow the request to continue through the pipeline.

**NodeJS:** Node.js Fundamentals, Node.js 3rd Party Libraries Usage, Middleware Implementation, Node.js APIs

### Question 3 Hard

Create a React component `TypingTest` that measures how fast a user can type a given text within a fixed time (e.g., 30 seconds).

Requirements:

- Provide a `<textarea>` where the user can type.
- Start the timer when the user begins typing.
- The user can type any text freely.
- When the timer ends (e.g., 30 seconds):
  - Stop input in the `textarea`.
  - Show the number of words correctly typed (accuracy).
  - Show words per minute (WPM).
- Add a Restart button to reset the test.

**React:** Hooks, React Fundamentals

## Overall feedback

- Divya demonstrates a solid understanding of React fundamentals, including hooks and

component lifecycle, and is familiar with core Node.js concepts like the event loop, V8 engine, and Libuv.

- She has some exposure to the Express framework and middleware, but struggled to clearly explain their practical applications or business use cases.
- Additionally, she was unable to complete the backend coding task, which highlights limited hands-on experience in backend development.
- Her frontend skills are notably stronger, and she seems more comfortable working within the React ecosystem.
- However, given the full-stack requirements of the role and her current backend proficiency, she does not appear to be a suitable fit for this position

## 1 React

### React Fundamentals (7/10)

- ☐ Strong knowledge of React Fundamentals
- ☒ Good knowledge of React Fundamentals
- ☐ Only theoretical knowledge of React Fundamentals with no practical experience
- ☐ No knowledge of React Fundamentals

#### Strengths

- Divya demonstrated a strong understanding of React fundamentals, including hooks, code splitting, and lazy loading.

#### Areas of improvement

- Divya would benefit from continued learning and deeper exploration of advanced React features.
- Gaining hands-on experience with building complex components and working on large-scale applications would help strengthen her frontend capabilities.

### Hooks (7/10)

- ☐ Strong knowledge of Hooks
- ☒ Good knowledge of Hooks
- ☐ Only theoretical knowledge of Hooks with no practical experience
- ☐ No knowledge of Hooks

#### Strengths

- Divya demonstrated a solid understanding of various React hooks and their use cases.
- She was able to apply them effectively during the coding test, showing confidence in leveraging

hooks to manage component behavior and state.

#### Areas of improvement

- Divya would benefit from working on more complex components and focusing on designing solutions using established best practices and design patterns.

## 2 NodeJS

### Node.js Fundamentals (5/10)

- ☐ Strong knowledge of Node.js Fundamentals
- ☐ Good knowledge of Node.js Fundamentals
- ☒ Only theoretical knowledge of Node.js Fundamentals with no practical experience
- ☐ No knowledge of Node.js Fundamentals

#### Strengths

- Divya has a good understanding of Node.js fundamentals, including key concepts such as the event loop, V8 engine, and Libuv.

#### Areas of improvement

- Divya was unable to clearly explain real-world scenarios or use cases for Node.js backend applications, which indicates limited hands-on experience with backend development.
- Gaining practical exposure and working on backend projects would help strengthen her understanding and ability to apply these concepts effectively.

### Node.js 3rd Party Libraries Usage (5/10)

- ☐ Strong knowledge of Node.js 3rd Party Libraries Usage
- ☐ Good knowledge of Node.js 3rd Party Libraries Usage
- ☒ Only theoretical knowledge of Node.js 3rd Party Libraries Usage with no practical experience
- ☐ No knowledge of Node.js 3rd Party Libraries Usage

#### Strengths

- Divya has good exposure to various Node.js third-party packages such as CORS and Nodemailer, and has used Axios effectively for making API calls.

#### Areas of improvement

- Divya does not appear to be very familiar with queue systems for handling emails in backend

applications and shows limited exposure to other third-party libraries beyond the basics.

- Gaining more hands-on experience with these tools and implementing them in real-world projects would help strengthen her backend development skills and broaden her technical toolkit.

### Middleware Implementation (5/10)

- ☐ Strong knowledge of Middleware Implementation
- ☐ Good knowledge of Middleware Implementation
- ☒ Only theoretical knowledge of Middleware Implementation with no practical experience
- ☐ No knowledge of Middleware Implementation

#### Strengths

- Divya has some hands-on experience with the Express framework and demonstrates a foundational understanding of middleware flow and its use cases.

#### Areas of improvement

- Divya would benefit from gaining more hands-on experience with middleware by exploring and integrating a wider range of available middleware libraries.
- Strengthening her understanding of how middleware supports specific business needs would help her design more effective and scalable backend solutions

### Node.js APIs (4/10)

- ☐ Strong knowledge of Node.js APIs
- ☐ Good knowledge of Node.js APIs
- ☒ Only theoretical knowledge of Node.js APIs with no practical experience
- ☐ No knowledge of Node.js APIs

#### Strengths

- Divya demonstrated a basic understanding of Node.js APIs such as streams and child processes, and has applied them in conjunction with the Express framework.

#### Areas of improvement

- Divya was unable to clearly elaborate on the practical use cases of the Node.js child process module and shows limited exposure to streams.
- Gaining hands-on experience with these APIs and applying them in real-world scenarios would help deepen her backend proficiency and broaden her technical capabilities

### 3 Communication & Articulation

#### Communication & Articulation (7/10)

- ☐ Candidate had clear communication and was able to articulate ideas
- ☒ Candidate was able to communicate but needed little help to understand
- ☐ Candidate was able to understand but couldn't communicate properly
- ☐ Candidate was not able to understand & communicate properly

##### Strengths

- Divya communicates effectively and expresses her ideas and thoughts clearly.
- Her ability to articulate technical concepts contributes positively to collaboration and team discussions.

##### Areas of improvement

- Divya would benefit from learning and applying a range of communication techniques, especially when collaborating with team members and stakeholders.
- Strengthening these skills would enhance her ability to convey ideas effectively, navigate discussions, and contribute more confidently in cross-functional environments

### 4 Learnability and coachability

#### Understanding business case (7/10)

- ☐ Strong knowledge or understanding of business case
- ☒ Good knowledge or understanding of business case
- ☐ Little knowledge or understanding of business case
- ☐ No knowledge or understanding of business case

##### Strengths

- Divya is currently leading a small team and actively collaborates with stakeholders to gather requirements.
- She works closely with her team to align on shared goals and deliverables, demonstrating initiative and ownership in managing both technical and communication aspects of the development process.

##### Areas of improvement

- Divya would benefit from strengthening her ability to understand business requirements by



asking the right clarifying questions.

- Developing skills in preparing clear documentation, using diagrams, flowcharts, and other visual aids, would also enhance her ability to communicate solutions effectively and align with stakeholder expectations.