

# Backend Workshop -7-

# Workshop

## Subject:

• NodeJS Interview Question

### **Learning Goals**

• Preparing for NodeJS Interview Questions

### Introduction

Preparing for interview questions that may arise during job application processes

## **Prerequisites**

• Answer by discussing among yourselves.

#### Lets start

1. Explain Middleware in Express.js.

Answer:
2. What is routing in Express.js, and how is it implemented?  Answer:
3. How does error handling work in Express.js?
Answer:
4.What is the purpose of the Express.js app.use() method?
Answer:
5.Explain the role of the Express.js response object.
Answer:
6.What is Sequelize, and what is its primary purpose?
Answer:
7. What is pagination, and how can you implement it in a database query with Sequelize or Mongoose?
Answer:
8. How do you use the where clause in Sequelize to create search queries?
Answer:

9.Explain JSON Web Tokens (JWT) and their role in web applications.

Answer:

10. What are some common security considerations when using JWT for authentication?

Answer:

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**Backend Teamwork** -6-

# **Teamwork**

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### Introduction

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#### 1. Which HTTP methods can be handled by Express.js routes?

- a) GET
- b) POST
- c) PUT
- d) All of the above

#### 2. How do you set up a basic route in Express.js for handling a GET request?

- a) app.get('/', callbackFunction)
- b) app.use('/', callbackFunction)
- c) app.route('/', callbackFunction)
- d) app.post('/', callbackFunction)

#### 3. How does Express.js handle error middleware?

- a) By calling the next() function
- b) Automatically without any configuration
- c) By using a separate error-handling route
- d) It doesn't handle errors.

#### 4. How can you parse JSON data from the request body in Express.js?

- a) Using req.body
- b) Using req.json

- c) Using req.parseJSON()
- d) Using req.data

#### 5. What is the purpose of the app.set('view engine', 'ejs') configuration in Express.js?

- a) To start the server
- b) To set up a view engine
- c) To configure the router
- d) To define route paths

#### 6. What is Express.js's res.redirect() method used for?

- a) Rendering HTML templates
- b) Sending JSON responses
- c) Redirecting to a different URL
- d) Handling errors

#### 7. What is the purpose of Express.js's app.locals object?

- a) To store session data
- b) To define global variables for templates
- c) To handle route middleware
- d) To configure the server's security settings

#### 8. Which tool is commonly used with Express.js for secure authentication and authorization?

- a) Passport.js
- b) Express-Authenticator
- c) SecureAuth.js
- d) AuthGuard

#### 9. What is Express. js's static middleware used for?

• a) Parsing JSON data

- b) Handling errors
- c) Serving static files like CSS and JavaScript
- d) Authenticating users

#### 10. What is the primary purpose of implementing pagination in a web application?

- a) To improve search engine optimization (SEO)
- b) To enhance user interface design
- c) To organize content into manageable pages
- d) To implement secure authentication

# 11. Which Sequelize method is used to create a new database record if it doesn't exist or update it if it does exist?

- a) findOrCreate()
- b) updateOrCreate()
- c) createOrUpdate()
- d) insertOrUpdate()

#### 12. How does skip-based pagination work?

- a) It loads all data at once for better performance.
- b) It retrieves a specific page of data by skipping a defined number of records.
- c) It paginates by dividing data into fixed-size blocks.
- d) It retrieves data randomly without any order.

#### 13.JWT Question: What is the purpose of the "payload" in a JSON Web Token (JWT)?

- a) To store metadata about the token
- b) To define the expiration time of the token
- c) To carry information about the user or claims
- d) To encrypt the token

14-In an Express.js application, you want to implement an efficient and scalable mechanism for handling authentication and authorization. Describe the process and components you would use to

#### achieve this, considering factors like security, performance, and flexibility.

• a) Implement a single, complex middleware that handles both authentication and authorization in one pass.

- b) Utilize Express.js sessions and store session data in a server-side database, checking user credentials and permissions for each request.
- c) Implement JWT-based authentication, store user roles and permissions in the tokens, and verify them for each protected route.
- d) Use Basic Authentication and store user credentials directly in the application code for efficiency.

15-You are building a high-traffic Express.js application, and you want to optimize its performance. Which middleware should you consider using to improve request processing speed and minimize response times?

- a) express-compression
- b) express-sessions
- c) express-validator
- d) express-static-gzip



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