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Express - Middleware

- Aditya Kumar
Chief Technology Officer, edwisor.com

We will cover with the following concepts

1) ExpressJS Request and Response

2) Concept of Middlewares

3) Three common types of middlewares

4) Essential middlewares that come in handy

5) Integrating the middlewares at the right time

Understanding req and res is very important

- ➔ **Express req object** consists of a lot of important properties and methods associated with/necessary with an HTTP request.
- ➔ Most of these properties are set with the HTTP request that is sent to the server application written in ExpressJS.
- ➔ Most of them can be modified at the client side code and hence they help us keep track of certain important things.
- ➔ We will be working closely with cookie, headers, params and body property.

Understanding req and res is very important

- ➔ **Express res object** consists of a lot of important properties that we would like to send with the http response that we are sending to client side. It also contains set of important methods required to modify the response.
- ➔ You can modify these properties to fit your requirements.

- ➔ We will be working closely with cookie and headers for now.

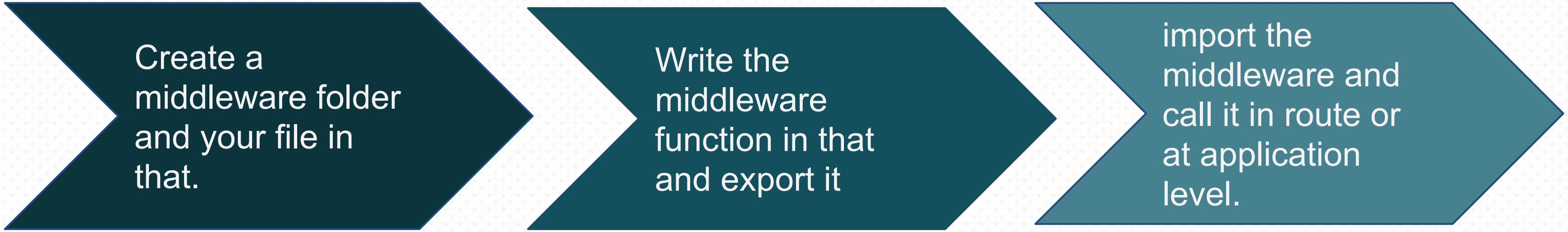
Middlewares functions are used to play with req and res

- Middlewares functions have access to the req and res objects.

- It also has access to a special function called next which can be used to pass the control to a new middleware or to the controller function

- Middleware functions can be used to
  - Execute any code
  - Make changes to req and res object
  - End the request-response cycle
  - Call the next middleware

Creating and using middleware function is very easy



Create a middleware folder and your file in that.

Write the middleware function in that and export it

import the middleware and call it in route or at application level.

Step 1

Step 2

Step 3

Let's do the same in our application

There are 5 major level for using middlewares

- ➔ Application level middleware
- ➔ Router level middleware
- ➔ Error handling middleware
- ➔ Built-in middleware
- ➔ Third party middleware

Lets explore them more on the official documentation - https://expressjs.com/en/guide/using-middleware.html

Lets create a few middlewares of our own

- AppErrorHandler - to handle errors
- route logger - to log route access information

Order of middlewares is important

- lets do a little experiment to understand this.

The next steps are ...

- ➔ Concept of libraries
- ➔ Completing our CRUD application
- ➔ Writing our important libraries - logger, response and timelib