

# INNOVIZE ESKILLBRIDGE EDUTECH GLOBAL LLP

## What is Express.js?

Express.js is a lightweight, fast, and flexible web application framework for Node.js. It is designed to simplify the process of building web applications and APIs. Express.js allows developers to manage different HTTP methods (like GET, POST, PUT, DELETE) and URL routes (paths in a website), making server-side programming easier and more organized.

Think of Express.js as a way to build a structured website or web app using JavaScript on the server-side.

### Key Features:

- **Routing:** It allows us to define different routes based on HTTP methods (like GET and POST).
- **Middleware:** Functions that can be run between the request and response cycle to handle specific tasks, like user authentication or data validation.
- **Templating:** It can dynamically render HTML pages, making web development much simpler.
- **Error Handling:** Built-in features for managing errors during web requests.

### Why Express.js?

1. **Simplicity:** Express.js has a minimalistic structure, which makes it easy for developers to set up a server. You can build a simple server with just a few lines of code. This makes it an excellent choice for 10th-grade students who want to quickly get their hands on server-side programming.
2. **Fast and Efficient:** Since Express.js is built on top of Node.js, it inherits the non-blocking, event-driven architecture of Node, making it fast and efficient, especially when handling multiple requests at the same time.
3. **Flexible Routing:** Express allows you to define routes based on HTTP methods and URLs. This makes handling requests very organized and scalable. For example, if you have an employee table and want to get all employees or add a new employee, Express.js makes it easy to manage these requests.
4. **Middleware Support:** Middleware functions allow you to handle specific tasks, like verifying if a user is logged in or checking the validity of data before it's processed. For example, before allowing an employee to be added, middleware can verify that all fields are filled correctly.