Nestjs­­

Nestjs is a ­­­ nodejs framework for building efficient, reliable, and scable server-side application. It is built with and fully supports typescript but still allows developers to code in pure JavaScript.

Nestjs takes advantage of typescript robust type system and provides a modular architecture that makes it easy to manage and maintain large-scale application.

Advantage of nestjs

1. Modular architecture
2. Typescript Support
3. Dependency Injection
4. Built-in support for common patterns
5. Extensive Ecosystem
6. Testing
7. Community and documentation

Disadvantages of nestjs

1. Learning curve
2. Overhead for small projects
3. Performance overhead
4. Typescript dependency
5. Rapid changes

Nestjs vs Expressjs

Opinionated and unopinionated

|  |  |  |
| --- | --- | --- |
|  | Nestjs | Express js |
| Opinionation approach |  |  |
| Conventions |  |  |
| Flexibility |  |  |
| Typescript integration |  |  |
| Experience level |  |  |
| Complexity |  |  |

Popularity

Both nestjs and express js have gained significant traction in the developer community.Expressjs with over 57,000 github stars, is currently the most widely used nodejs framework. Its simplicity, flexibility, and extensive developer community have contributed to its popularity. Developers value the ease of use and the broad range of resources available for express.

On the other hand, Nestjs is quickly gaining popularity, with over 47,000 github stars and rapid growing adoption rate. Nestjs strong architecture, typescript support, and seamless integration with other technologies have made it attractive choice for developers. Its emphasis on scalability and maintainability has garnered attention within the nodejs development community.

|  |  |  |
| --- | --- | --- |
| Framework | Github stars | adoption |
| Nestjs | 47,000+ | Rapidly growing |
| Expressjs | 57,000+ | Widely used |

Performance

Both nestjs and expressjs offer excellent performance when it comes to building server-side application. Express js is known for its simplicity and efficiency, allowing us to execute multiple operations asynchronously. This asynchronous programming capability enhances the overall performance of our application.

Nestjs on the other hand, defaults to using the express framework for request processing. Express is a popular and widely used HTTP framework that delivers solid performance for building web application. However, nestjs also provides the flexibility to switch to fastify, another HTTP framework known for its scalability and speed.

|  |  |  |  |
| --- | --- | --- | --- |
| Framework | performance | Asynchronous programming | scalability |
| nestjs | Good performance with express framework | Supports asynchronous programming | Can switch to fastify for improved scalability. |
| express js | Efficient and asynchronous | Provides support for asynchronous operation | Can handle moderate scalability requirements |

Architecture

Nestjs follow the principle of separation of concerns and modularity, providing a well-defined architecture for developers.it encourages the use of modules, controllers, and providers, which help organize and structure the application logic.by dividing the code into different modules, developers can separate functionalities and manage dependencies easily.

This approach promotes reusability and maintainability, as each module can be developed independently and plugged into different parts of the application. The controller handle incoming requests, while providers manage the business logic and data. By separating different layers of the application, nestjs ensures a clean and organized codebase.

|  |  |
| --- | --- |
| Nestjs | Express js |
| Follows the principle of separation of concerns and modularity | Does not enforce any specific architecture |
| Encourages the use of modules, controllers, and providers. Promotes reusability and maintainability. | Provides flexibility and freedom in code structuring. May result in code inconsistencies and maintenance challneges. |