NodeJS Vs Java

Below are the factors considered along with the comparison on NodeJS and Java for the eSense ERP Application

Performance	It operates extremely fast in a short time period.	Java delivers high-performance capabilities to the applications.
Application Architecture	NodeJS uses a single-threaded event loop system or MVP/MVC architecture.	Java supports multi-threaded, and developers opt for the model-view-controller architecture for app development.
Installation	Need the archive file on the system.	Need to set the JavaFX environment to execute the JavaFX applications.
Testing	NodeJS provides competent testing and debugging abilities.	Java enables testing with FitNesse, JMeter, Selenium, JUnit, and Apache.
Scalability	NodeJS does not vertical scalability and only works better with horizontal scaling.	Java offers vertical scaling, horizontal scaling, single point of failure, and a single solution for all architecture needs.
Microservices Compatibility	NodeJS is highly compatible with the code and service modules.	Java is compatible with the microservice architecture, owing to its frameworks like Spring Boot and Annotation Syntax.
Database Support	NodeJS extends its support for all the NoSQL and relational databases.	Java uses MySQL, SQLite, and PostgreSQL.
Community Support	Facebook, Google, and Amazon have contributed significantly to the NodeJS environment, thereby turning the NodeJS technology more credible.	A broad community implies bug squashing, frequent updates, as well as innovation.
Hiring Difficulty	Easy	Easy
Platform Dependency	Platform Independent	Platform Independent
Maintainability of Multi-Tenant SaaS Application	Due to single threaded behaviour becomes increasingly difficult to get the best performance for multi-tenant applications. Increasingly become difficult to manage code base as to handle the multi-threading we have to rely on Event Loops etc.	Easy to maintain the system as it's consistent.
Availability of Accelerators	NA	**Available In-House Accelerators:** Api Gateway Service Discovery Logging Framework Config Server Authentication - KeyCloak Authorization - RBAC

Technology Use Cases:

Below are the use cases considered for the comparison between NodeJS and Java

NodeJS:

- If we want to develop a web application for streaming content.
- If we want to develop a high-performing single-page app.
- If we have to create a web application with efficient data processing abilities.
- If we want to build a real-time and multi-user web application.
- If we wish to develop a browser-oriented game application.

Java:

- If we want to develop an enterprise application.
- If we want to build a scalable application.
- If we have to create an eCommerce, ERP like applications.
- If we are looking to develop a Big Data application.
- If we wish to build crypto currency application with high-level security features.

Apexon Opinion:
Basis on above use cases, comparisons and understanding of eSense ERP requirements we propose to use Java, Spring, SpringBoot etc. for microservices development.