**Node JS Note**

* **What is Node.js?**
* Node.js is an open-source, cross-platform, back-end javascript runtime environment that runs on the v8 engine and executes javascript code outside a web browser.
* V8 is written in C++ for speed.
* V8 + Backend Features = Node.js
* **Feature of node js?**
* Asynchronous and event Driver.
* single-threaded
* Scalability
* Javascript based
* No Buffering… etc CZP04976714
* JavaScript on Client?
* Displays web Page: Turns HTML code into what you see or screen.
* User Click: Helps you interact with the webpage.
* Update Content: Allows changes to the page using javascript.
* Loads files; Gets HTML, images etc, from the server.
* JavaScript on Server
* Database Management: Store, retrieves and manages data efficiently through operations like CRUD (Create, Read, Update, Delete)
* Authentication: verifies user identities to control access to the system, ensuring that users are who they claim to be.
* Authorization: Determines what authenticated users are allowed to do by managing permission and access controls.
* Input Validation: Checks incoming data for correctness, completeness, and security to prevent malicious data entry and errors.
* Session Management: Tracks users activity across various requests to maintain state and manage user-specific setting.