NODE JS

MILESTONE 1

Both advantage and disadvantage

1) Callback
2) Avoid callback hell
3) Promise
4) Bluebird Promises
5) Async Await

Convert Callback to promise
Convert promise to async await

HTTP:-
- Methods
- Status Code
- Headers
- Body
- Content Type

MILESTONE 2

- Exporting and Consuming Modules
- Exporting and Importing Module in node.js
- How modules are loaded
- Event Emitters - Web Sockets
- Exception handling
- Eventloop

MILESTONE 3

- Express Configuration
- Helmet
- Cors
- Rest API
- GET POST PUT DELETE

- Get with params, query params
- Express validator
- Nodemon

MILESTONE 4

- package.json, package-local.json in node js
- Dependencies and dev dependencies
- Debugger mode in vs code
- Postman tips and tricks etc
   - How to name a collection/route
   - Environment variable
- Node Js - Security - Explore on your own.
   https://owasp.org/www-project-top-ten/
- X-powered-by header (Security) ---- Express application hider
- MongoDB / MySql:- Indexing, Triggers, Hooks
- MySQL - Injection

MILESTONE 5 (Intermediate)

- CURL - Command
- Graph QL - Basics
- Redis / MemCache
- Docker Basics
   - https://www.youtube.com/watch?v=gAkwW2tuIqE

Milestone 6 (Advance)
- Memory Leaks
- Threads
- Streams

References:-
https://sematext.com/blog/nodejs-memory-leaks/

Project Task

Rest API in Node js
Front End Tool:- Postman Application is Enough

Project Pattern:- MVC pattern
Library Should Be Used:- Express.js, Standard.js, Express validator, Cron Job
Authentication - JWT token, Passport.js
Logger - Winston
Project configuration:- precommit, .env setup (Producution and dev mode), eslint configuration
DB Backup => Every Hour cron job should run to get local db dump.

DB:- MySql / Mongo DB
ORM:- Sequilze
Only Async Await

JEST Unit Testing for the problem solving=============

- Jest Installation
- Unit testing - Check only functions
- Different inbuild functions like (expect, etc)
- Write unit test / around 5 test cases for each functions.