# Advance Web Technology

## **Basics :**

## MongoDB, API, Json, Frontend

## SPI - single page application(youtube - angular, Facebook , Instagram web - reactjs)

## **Node** :

Node - Server side java script

LTS - Long term support

API -middle where communication between

Testing

unitesting

integration testing

=> call back function

npm init -y //new project

npm install i

spread operator = to get elements of array

<https://expressjs.com/en/guide/routing.html>

Route Methods : get & POST PUT and Delete and all

**Route Paths** : ‘/’, ‘/about’, ‘/ab?cd’ (allows acd and abcd), ‘ab+cd’ (abcd,abbbcd, abbbbcd),

Sync and asynnc

.then, .kh, promise,

//Create endpoint to display book details based on given id

//Create endpoint to search book by author,pub\_year,pub\_name,title,

//Create endpoint which will server request of food and foods (/food?)

//Create endpoint which will start with b and ends with k (‘/b\*k’)

//Create endpoint which starts with g and atleast 2 O and ends with gl.(‘/goo+gle)

//Create endpoint which supports which supports all endpoint ending with ful.

**REACT**

npm create vite

npm (no packat management)- install the dependency

npx - want to run only nor install

vite.svg = for graphics

JSX - Java script ambadded xml

rafce shortcut for source code

Task 1 : Craete a component which will display a button on screen with click me text

Create a class person name,dob,address,

Hooks :

useState = to update the display component (state management)

**MONGO-DB**

Tables :

Columns = object attributes

Rows = each record

Primary key, Unique Key, Foreign Key

<https://www.altexsoft.com/blog/nosql-databases/>

Types of NoSql : NoSQL(Semi structured or non structured data)

Key value - **key-value databases** store data as pairs of keys and values used in performance monitoring, basic information, session management, video game boards and iot applications.Radis, Mamcached, RocksDB, Hazelcast,Valkey.

Document Databases : **Document databases** store, manage, and retrieve data in the form of documents (in JSON, BSON, or XML formats).Each document is identified by a unique key. MongoDB, Apache, CouchDB, Firebase, Amazon Document DB. Content Management system, User Profiles, Catalog Items.

Graph Databases : **Graph databases** are designed to store, manage, and query data in the form of graphs that consist of nodes and edges.Social Networks, Recommenders system, Fraud Detection, Natural language processing.Neo4j, Amazon Neptune, JanusGraph,

**Wide Column or Column-Oriented DB** :- store data column by column rather than rows, organizing related information in column families.IOT Systems, Big data analysis and BI tools.Apache Cassandra, Apache Hbase, Apache Druid, ScyllaDB.

Multimodel DB :- **Multi-model databases** support different ways of storing data (document, key-value, graph, and wide-column) within the same system. Amazon DynamoDB, CouchBase, ArangoDB, Azure Cosmos DB.

**Model** : It contains all the attributes which want to store in form of document.

Sequalize :