**Day 4: 23 Mar. 25**

Backend technology using Node JS

**Express JS :**

**Web Service :** Giving the service for web application when both the application running using different technologies.

In Express Module or Http Module the view technologies is HTML. Html is static we can’t access any variable value which a part of Express Module or http module in html page.

Express JS provided dynamic web engine or concept.

Creating express js project with **express view engine**

express-generator is a module which help to create express js project with jade as a dynamic view engine.

npx express-generator **express-demo-app create project**

cd demo-app **move inside a project directory**

npm install **install all required dependency**

open the project in Vs Code

npm start

open the browser and write the URL as

<http://localhost:3000/>

Express JS provided lot of view engine. Every view engine follow its own syntax.

If we use normal HTML or any Express JS view engine as a View technology. That view technology tightly coupled with Express JS Application.

View technology backend technology

Angular Express JS

React JS Spring boot (java)

Asp.net

Php

Python

Spring boot

**Amazon**

Payment -🡪 Credit card

Debit card

Paypal asp.net

Paytm php

Gpay express js

PhonePay spring boot

JS object ------🡪 req

App1 XML/JSON App2

Express JS Java

🡨--------Java object

XML :eXtensible markup of language : data need to share in tag format.

Web Service

1. SOAP base web service : Simple Object Access Protocol.

In SOAP Web Service we can consume and produce data in the form of XML

SOAP Web Service follow its own message structure

In SOAP Web service we need to send and receive the data only in the form of XML with SOAP structure.

1. Rest full web service : Representation state transfer . In Rest full web service we can consume and produce data in any format base upon client requirement like JSON, XML, Plain text, html or any mediate type etc.

**Creating simple REST full Web service**

Create the folder as **Simple Rest API**

npm init -y

npm install express

Open the folder inside a VS Code

**Creating Rest API for Product with Array concept or file or database.**

**Array concept**

1. **Get method : get the resources** 
   1. Get all product in json format : select query
   2. Get particular product base upon some property like pid, pname, price
      1. Query param

URL?key=value

URL?key1=value1&key2=value2

* + 1. Path param

URL/value

URL/value1/value2

Select query with where clause

1. **Post method : create the resource** 
   1. store the product details in array or file system or database

insert query

1. **Put method : update the existing resource**
   1. Update the product price using pid

Update query

1. **Delete method : delete the resource** 
   1. Delete the product using pid

Delete query

**To test these end or rest api we need some rest api plugin.**

**Post Man plugin**

**Only Get method we can test through browser.**

**Creating REST API for product object with array concept**

Create the folder **product-rest-api**

**npm init -y**  create the package.json file

**npm install express**