Day 7: 20 Sep. 25

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

Spring boot or express

**Amazon**

Payment -🡪 Credit card

Debit card

Paypal asp.net

Paytm php

Gpay express js

PhonePay spring boot

JS object ------🡪 request

App1 XML/JSON App2

Express JS Java

🡨--------Java object –response

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

JSON: Java Script Object Notation: data need to share in key/value format.

Web Service

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

In SOAP Web Service we can consume and produce data only 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.

SOAP web service base upon SOA architecture. Service Oriented Architecture.

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 **SimpleRestAPI**

npm init -y package.json

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

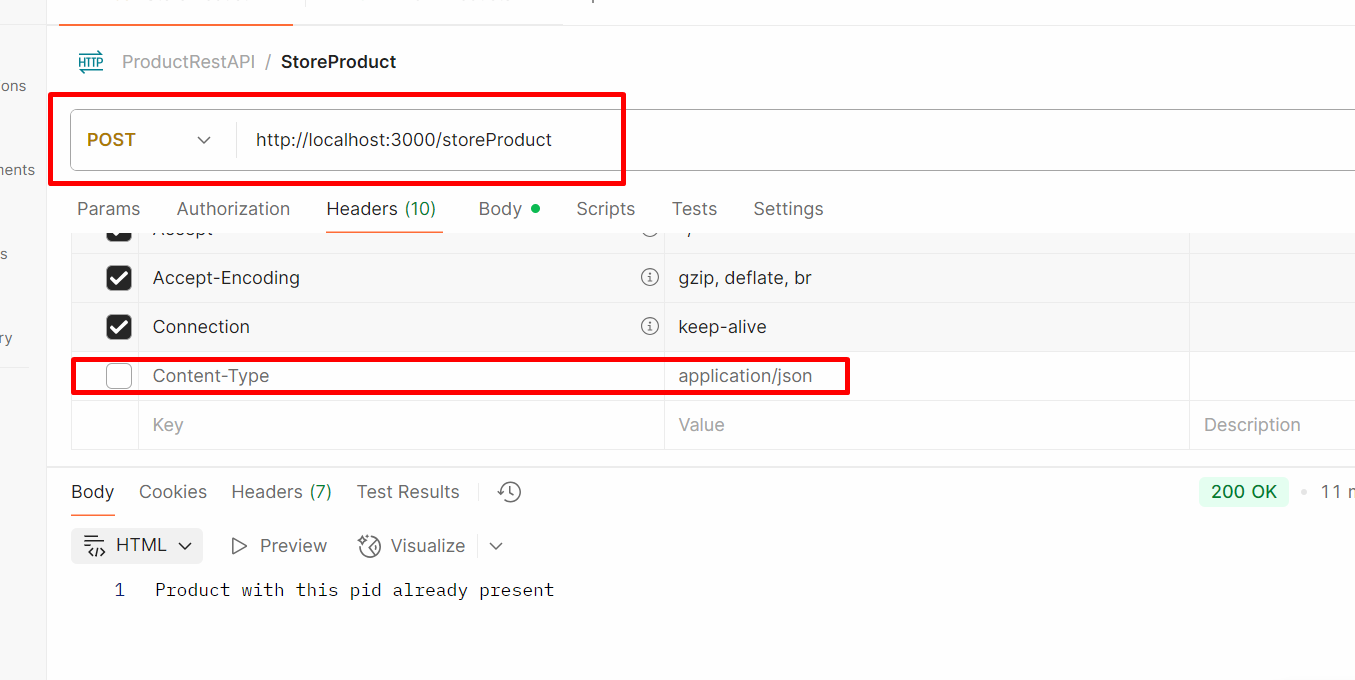
1. **Post method : create the resource** 
   1. store the product details in array or file system or database

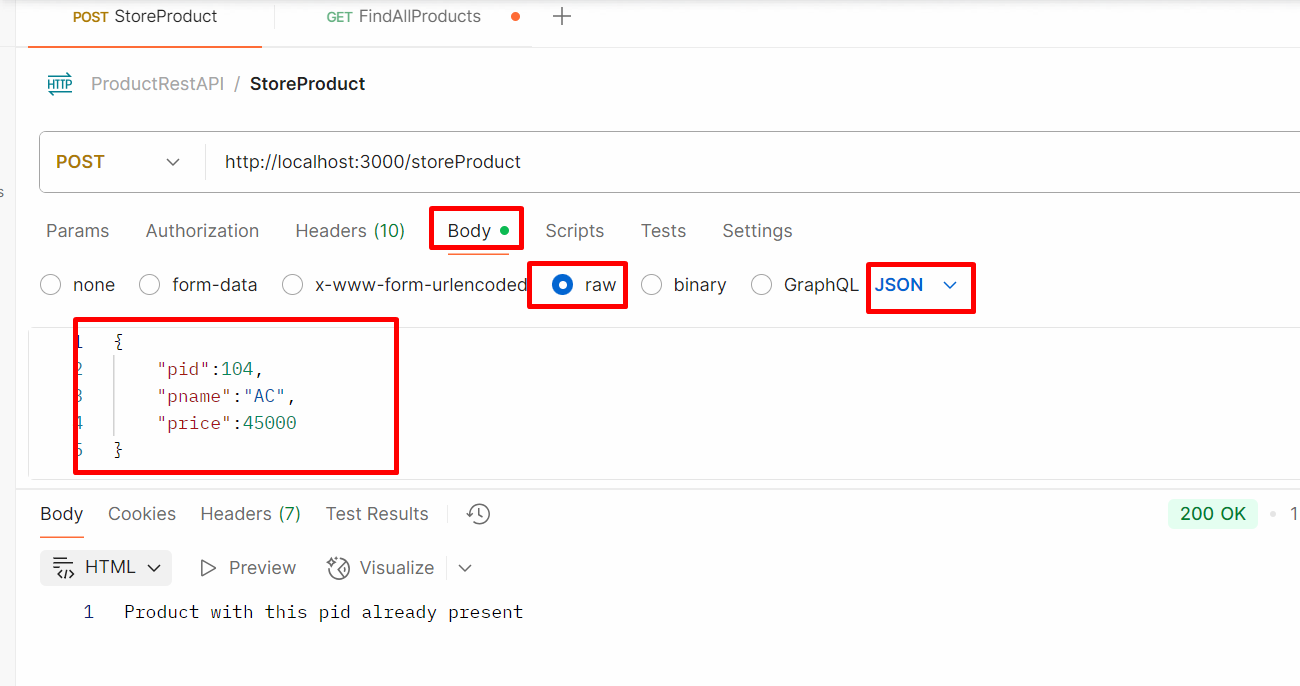
insert query

Post method data send through body part in different format like json or xml etc.

By default express js can’t extract body data from request object we need to use middleware.

Testing through post man client





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**

