**Day 9: 27 Sep. 25**

**User defined modules:**

User defined or pre defined modules is a reusable block of code that encapsulate (Wrap) related login in different files.

When we need more than one function, variable, classes or object which have same but different purpose.

Using modules we can maintain the project in structure manner.

ES5 style : type CommonJS (by default consider)

export is a keyword which we use to export variable, function, classes or any JS object.

require() use to import or link variable or function or classes in current file.

ES6 style : type : module(we need to mention in package.json file)

export : it is use to export

import : it is use to import

creating folder with name as

**user define module**

sub folder as **ES5 Style**

**npm init -y**

sub folder as ES6 style

npm init -y

type:”mo**dule”**

**mongoose :** Mongoose is another third party modules which use to connect mongo db database using node or express JS. Mongoose is base upon ODM (Object Data Modelling). Mongoose support features as schema (collection name, attribute name, data types inside that attribute), to do this type of work we use **model** concept. Model concept link to collection in mongo db. It support validation concept (field data types).

**Model view controller : is a type of design pattern or architecture**

Creating rest api for product with mongoose module with standard (MVC style project).

Create folder with name as **product-rest-api-using-mongoose**

**npm init -y** package.json

**npm install express mongoose dotenv**

express : to create rest api

mongoose: to connect mongo db database using ODM concept.

dotenv : load resource details form .env file

config -🡪 folder

**dbConfig.js** : this file provide us database configuration details.

model🡪 folder

**productModel.js:** This file provide the structure for collection ie schema means collection name, attribute name and their data types with validation (if required).

repository 🡪 folder or dao (data access object)

**productRepository.js :** this file contains set of function which contains pure database logic using mongodb or mongoose. This file import or require means load the productModel file and do the operation on that collection as store, delete, update and retrieve etc

controller 🡪 folder which contains pure express js code

**productController.js :** : this file contains all rest api method means which takes request and response as parameter and pass this information to repository layer and base upon repository layer acknowledgment it return response to view technologies in json or text format.

**router** : 🡪 folder contains routing details

productRouter.js : this file provide sub path as well http method details like post, put, delete and get etc. this provide providing routing details.

**app.js or main.js or sever.js**

this file main file or entry of the application.

Which load express module ,middleware module, provide the main path, link to routing file and port number details.