Design Web based Product management system that will allow users to maintain product data along with its details

Application implementation will be divided into two parts

1. **Server Side** : Designing of Restful API Layer
2. **Client Side** : Designing and implementation of Front End/UI

# Functional Requirements

1. **Server Side : Designing of Restful API Layer**

You have to design API Layer for Product Management Application which will allow any user to view Product and its details.

U can use below sample script

db.products.insert( [

{productid:10, productname: 'Keyboard', modelyear: 2020, price: 1000,description:’keyboard description’},

{productid:11, productname: 'Laptop', modelyear: 2021, price: 25000,description:’Laptop description’},

{productid:12, productname: 'Inverter', modelyear: 2022, price: 10000,description:’Inverter description’},

{productid:13, productname: 'Desktop', modelyear: 2018, price: 15000,description:’Desktop description’},

])

### **Implementing Products API’s**

Design and Implement Product API Layer as per below Table

|  |  |  |
| --- | --- | --- |
| **Sr.**  **No** | **Operation** | **API URL and Description** |
| 1 | **GET** | ../api/Products  It should return all products available in the database |
| 2 | **GET** | ../api/Products/:productid  It should return details of a given **productid** which is passed as route parameter.  If a product is not found for a given id, it should return 404 as response code along with some error message |
| 5 | **POST** | **…/api/Products**  add new Product |
| 6 | **PUT** | **…/api/ Products /:**productid  User should be able to edit Product data for a productid |
| 7 | **DELETE** | **…/api/ Products /:**productid  User should be able to delete Product for a productid |

**(Note: While implementing all above APIs, ensure that all errors/exceptions are handled)**

### **FrontEnd/UI for the API Layer using React.js/Angular**

* Create a Front End/UI Application to consume above all API’s
* Implement screens for below functionality:
  + Show all list of products (e.g:Can show list of products in table format)
    - In list can add basic details such as product name,price,id etc
    - Add hyperlink for productname
    - Also add link/button for edit,delete for each product
  + On click of Product name in list screen it should show product details screen where all other details of product will be displayed
  + On click of edit link redirect to edit screen where user can edit details and on click on update button it should be updated into database
  + On click of delete from list screen that product will be deleted from database.
  + On home page add link for “creating new Product” using which user can insert new product record into database.
  + On home page add functionality of filtering products using product name,model year,price etc. (If required add more apis at back end to implement this functionality)

**(Note: You are free to add more features to design and build an end-to-end application with good User Experience, Using the technology stack.  )**