**REST API End point document**

**1. A client can use a REST call to put a book into the system providing its name, author, barcode, quantity, price per unit.**

Request Type: **POST**

To add new book details, use the below end point and the sample object.

**End Point**: /book/add

**Sample Request Object** :

{

    "name": "Vigneshkumar",

    "author": "Rajasekar",

    "barcode": "012334112",

    "quantity": 4,

    "price": 10.2

}

To add new Antique Book details, use the below end point and the sample object.

**End Point**: /antiquebook/add

**Sample Request Object**:

{

    "name": "Vigneshkumar",

    "author": "Rajasekar",

    "barcode": "012334112",

    "quantity": 4,

    "price": 10.2,

    "releaseYear" : 1890

}

To add new Science Journals Book details, use the below end point and the sample object.

**End Point**: /sciencejournals/add

**Sample Request Object**:

{

    "name": "Vigneshkumar",

    "author": "Rajasekar",

    "barcode": "012334112",

    "quantity": 4,

    "price": 10.2,

    "scienceIndex" : 2

}

**2. A client can use a REST call to retrieve book’s information from a system by providing its barcode.**

Request Type: **GET**

To retrieve Book’s information, use the below end point and the sample barcode.

**End Point**: /book/{barcode}

**Sample Barcode**: 12345

To retrieve Antique Book’s information, use the below end point and the sample barcode.

**End Point**: /antiquebook/{barcode}

**Sample Barcode**: 7671109

To retrieve Science Journals Book’s information, use the below end point and the sample barcode.

**End Point**: /sciencejournals/{barcode}

**Sample Barcode**: 9780393640342

**3. A client can use a REST call to update any of its detail providing the barcode and updated field information.**

Request Type: **PUT**

To update existing Book details, use the below end point and the sample object.

**End Point**: /book/update

**Sample Request Object** :

{

    "name": "Vigneshkumar",

    "author": "Rajasekar",

    "barcode": "012334112",

    "quantity": 12,

    "price": 10.2

}

To update existing Antique Book details, use the below end point and the sample object.

**End Point**: /antiquebook/update

**Sample Request Object**:

{

    "name": "Vigneshkumar",

    "author": "Rajasekar",

    "barcode": "012334112",

    "quantity": 12,

    "price": 10.2,

    "releaseYear" : 1893

}

To add new Science Journals Book details, use the below end point and the sample object.

**End Point**: /sciencejournals/update

**Sample Request Object**:

{

    "name": "Vigneshkumar",

    "author": "Rajasekar",

    "barcode": "012334112",

    "quantity": 4,

    "price": 10.2,

    "scienceIndex" : 4

}

**4. A client can use a REST call to calculate the total price of specific books in the system given by the barcode (including antique books and science journals).**

Request Type: **GET**

To calculate the total price of specific books, use the below end point and the sample barcode. It calculates and returns the total price using the formula - Total price = **Quantity \* Price**

**End Point**: /book/getTotalPrice/{barcode}

**Sample Barcode**: 12345

To calculate the total price of specific Antique books, use the below end point and the sample barcode. It calculates and returns the total price using the formula - Total Price = **Quantity \* Price \* (Current Year – Release Year) / 10**.

**End Point**: /antiquebook/getTotalPrice/{barcode}

**Sample Barcode**: 7671109

To calculate the total price of specific Science Journals books, use the below end point and the sample barcode. It calculates and returns the total price using the formula – Total Price = **Quantity \* Price \* Science Index**.

**End Point**: /sciencejournals/getTotalPrice/{barcode}

**Sample Barcode**: 9780393640342

**5. A client can use a REST call to request a list of all barcodes for the books in stock grouped by Quantity (Optional - barcodes for each group sorted by total price)**

Request Type: **GET**

To retrieve Book’s barcode information, use the below end point.

**End Point**: /book/barcodeList

To retrieve Antique Book’s barcode information, use the below end point.

**End Point**: /antiquebook/barcodeList

To retrieve Science Journals Book’s barcode information, use the below end point.

**End Point**: /sciencejournals/barcodeList

Sample response looks like,

[

    {

        "quantity": 1,

        "barcodeList": [

            "9780393640342a"

        ]

    },

    {

        "quantity": 2,

        "barcodeList": [

            "9780393640342",

            "9780393640342b",

            "9780393640342c"

        ]

    }

]

**Note**: To add with, we can add Validator class and exception handling class as additional feature.