

## **DESIGN**

Project is divided into 3 layers –

1. **API Layer**

Endpoints are listed here. This layer interacts with service layer and sends back the response to clients. It also takes care of error handling.

2. **Service Layer**

This is the business layer of the project. It handles validations, object manipulations and any error messages. This layer interacts with repository layer to get the data and send it back to API layer

3. **Repository Layer**

This is the data access layer of the project. It interacts with the database to save/retrieve the data and sends back to service layer

## **API MODELS**

### **User**

```
{
  'pkUserId': fields.Integer,
  'sFirstName': fields.String,
  'sLastName': fields.String,
  'sEmail': fields.String,
  'sPassword': fields.String
}
```

### **Book**

```
{
  'pkBookId': fields.Integer,
  'sTitle': fields.String,
  'sAuthor': fields.String,
  'sISBN': fields.String,
  'dtPublished': fields.String
}
```

### **WishList**

```
{
  'pkWishListId': fields.Integer,
  'fkUserId': fields.Integer,
  'fkBookId': fields.Integer,
  'sTitle': fields.String,
  'sAuthor': fields.String,
  'sISBN': fields.String,
  'dtPublished': fields.String
}
```

### **ErrorResponse**

```
{
  'errorcode': fields.Integer,
  'internalLog': fields.String,
  'externalLog': fields.String
}
```

## API

Route	Description	Request Body	Response
<b>WishList Api</b>			
GET /User/{uid}/Book	Get user wish list	NA	List of WishList model
POST /User/{uid}/Book/{bid}	Add book to user wish list	NA	Newly added WishList model
DELETE /User/{uid}/Book/{bid}	Delete a book from user wish list	NA	List of WishList model
DELETE /User/{uid}/Book/	Empty books from user wish list	NA	NA
<b>User Api</b>			
GET /Users	Get user list	NA	List of User model
GET /User/{id}	Get user by id	NA	User model
POST /User	Add new user	User model	Newly added User model
PUT /User/{id}	Update existing user	User model	Update User Model
DELETE /User/{id}	Delete a user	NA	NA
<b>Book Api</b>			
GET /Books	Get book list	NA	List of Book model
GET /Book/{id}	Get book by id	NA	Book model
POST /Book	Add new book	Book model	Newly added Book model
PUT /Book/{id}	Update existing book	Book model	Update Book Model
DELETE /Book/{id}	Delete a book	NA	NA