**Features completed**

* User Register – Admin Register
* User login – Admin Login
* User request loan
* User List his loans
* User View specific loan
* User can view specific repayment
* Admins approve loan
* Admin list all loans
* Admin view specific loan
* Admin can view specific repayment

**Validation added**

* Login returns a Token, which need to be added to all further requests to access APIs
* User cannot see other user loans
* User cannot approve his loans
* Admin cannot update other information of loan except status
* Admin cannot update repayment status
* Loan amount and loan term cannot be zero

**Request Type and Response Formats**

**Note :**

* Used **Passport** package of Laravel for API development, it manages token for user specific sessions
  + Referred this link - <https://blog.logrocket.com/laravel-passport-a-tutorial-and-example-build/>
* **POSTMAN** can be used to interact with API
  + Add header – “**Accept – application/json**” for all requests
  + Token – to be added at **Authorization** as a bearer token
  + All data should be sent to be added under Body as a **x-www-form-urlencoded** options (key value pairs)
  + HTTP methods can be switched from dropdown

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sl, No** | **Feature** | **HTTP Method** | **Request Body** | **Response Data** |
| **0** | **Dummy API Call**  http://127.0.0.1:8000/api/ | **GET** | **-** | "message":  "This is API response" |
| **1a** | **Register (user)**  http://127.0.0.1:8000/api/register | **POST** | **name**  **email**  **password**  **password\_confirmation** | **JSON**  **Inserted user information**  **Along with token** |
| **1b** | **Register (admin)**  http://127.0.0.1:8000/api/register | **POST** | **name**  **email**  **password**  **password\_confirmation**  **type : admin** | **JSON**  **Inserted user information**  **Along with token** |
| **2** | **Login (both user & admin)**  http://127.0.0.1:8000/api/login | **POST** | **email**  **password** | **JSON**  **Logged in user with token**  **(copy and paste token to authorization you got here)** |
| **3** | **Loan List (both user & admin)**  http://127.0.0.1:8000/api/loan | **GET** | **token (at authorization)** | **JSON**  **List of Loans**  **(for user – his loans**  **for admin- all loans)** |
| **4** | **Request Loan (user)**  http://127.0.0.1:8000/api/loan | **POST** | **loan\_amount**  **loan\_term**  **token (at authorization)** | **JSON**  **Inserted loan information** |
| **5** | **Fetch Loan information (user & admin)**  [http://127.0.0.1:8000/api/loan/<loan\_id](http://127.0.0.1:8000/api/loan/%3cloan_id)>  eg: http://127.0.0.1:8000/api/loan/1 | **GET** | **token (at authorization)** | **JSON**  **Loan Information** |
| **6** | **Update loan (user & admin)**  [http://127.0.0.1:8000/api/loan/<loan\_id](http://127.0.0.1:8000/api/loan/%3cloan_id)>  eg: http://127.0.0.1:8000/api/loan/1 | **PATCH** | **(for user)**  **loan\_amount**  **loan\_term**  **token (at authorization)**  **(for admin)**  **Status – “APPROVED”**  **token (at authorization)** | **JSON**  **Update status** |
| **7** | **Fetch Repayment (user & admin)**  [http://127.0.0.1:8000/api/repayment/<repayment\_id](http://127.0.0.1:8000/api/repayment/%3crepayment_id)>  eg: http://127.0.0.1:8000/api/ repayment /1 | **GET** | **token (at authorization)** | **JSON**  **Repayment Information** |
| **8** | **Add Repayment (user)**  [http://127.0.0.1:8000/api/repayment/<repayment\_id](http://127.0.0.1:8000/api/repayment/%3crepayment_id)>  eg: http://127.0.0.1:8000/api/ repayment /1 | **PATCH** | **Status – “PAID”**  **token (at authorization)** | **JSON**  **Update status** |

**Application working flow**

1. Admin registers
2. User Registers
3. User login
4. User see list of his loan requests
5. User requests loan
6. Admin login
7. Admin see list of requested loan
8. Admin approves loan (automatically creates repayment record for that loan)
9. Users see list of repayment for a particular loan
10. User can see repayment
11. User can update status of repayment

**Files Created/Modified**

1. **app/Console/Commands/dbcreate.php** – to create db from command line
2. **app/Http/Controller/Auth/userAUthController.php** – to handle user register and login
3. **app/Http/Controller/LoanController** – to handle
   1. index – list loans
   2. show – view loan
   3. store – to save loan
   4. update – to update loan
   5. destroy – to delete loan
4. **app/Http/Controller/RepaymentController** – to handle
   1. show – view repayment
   2. update – to update repayment
5. **app/Http/Resources/LoanResource** – to generate systematic details of loan
6. **app/Http/Resources/RepaymentResource** – to generate systematic details of repayment
7. **app/Models/Loan** – to handle loan - table related operations (relations / fillables)
8. **app/Models/Resource** – to handle repayment - table related operations (relations / fillables)
9. Added Passport routes under **app/Providers/AuthServiceProvider**
10. Added **apiRource** routes under **app/routes/api.php**
11. Generated migration files under **app/database/migrations**