This application **FuelApp** interacts with Monday.com to retrieve and update work items. FuelApp application is authenticated using JWT token.

Pre-requisite:

1. Java 17
2. Spring boot 2.7.15
3. H2 – In memory Database
4. Postman
5. Test Account in Monday.com

Cloning application source and run:

Git Hub link: https://github.com/Vishnupriya-1/FuelApp.git

Command to run the application: ***mvn spring-boot:run***

On successful execution of application, below logs will appear in the console

2023-08-31 19:31:20.834 INFO 36448 --- [main] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat started on port(s): 8081 (http) with context path ''

2023-08-31 19:31:20.859 INFO 36448 --- [main] com.test.fuelApp.FuelAppApplication : Started FuelAppApplication in 5.617 seconds (JVM running for 6.024)

About the Service:

The service uses an in-memory database (H2) to store the data. User can also use any database. After successful database setup, user can start using the REST endpoints defined in "com.test.fuelApp.controller"; on port 8081.

Available endpoints:

1. POST: ***/register*** - to register the user by providing username and password as a request body. This will create a new user entry in the database.

   http://localhost:8081/register

   Request: { "username":"TestUser_1", "password":"test123" }

   Response: { "username":"TestUser_1"}

2. POST: ***/authenticate*** - to authenticate the user by validating the given credential with data base and provides the authentication token to login.

   http://localhost:8081/authenticate

   Request: { "username":"TestUser_1", "password":"test123" }

Response:

{   "token": "eyJhbGciOiJIUzUxMiJ9.eyJzdWIiOiJ0ZXN0NSIsImV4cCI6MTY5MzU3NzE1NCwiaWF0Ijox
NjkzNTU5MTU0fQ.o4q_uEh3FHTL7DLRy2iZ1-
DofOdgHSrxWHxOyHYrGjzhtcWNvmiKVuOf_bZWrKLzIZPBMHNz7RK5f4WQ3fRF9A" }

3. GET: **/getItems** - to retrieve the work items from Monday.com by passing the Monday account API token as a param and the request body which contains the query string as an input to call the API URL. Also pass the bearer token response received from the above endpoint.

   http://localhost:8081/getItems?token=<Monday.com_User_Token>

   Request: { "query": "query { boards(ids:1259058835) { items { id name } } }" }

   Authorisation: Bearer Token

   Params: Pass Monday.com API token as token

   Response: {

      "data": {

         "boards": [

            {

               "items": [

                  {

                     "id": "1259058839",

                     "name": "Completed Item"

                  },

                  {

                     "id": "1259058837",

                     "name": "Task1"

                  },

               ]

            }

         ]

      },

      "extensions": {

```
        "warnings": [

          {

            "message": "Replaced by Board.items_page in 2023-10",

            "locations": [

              {

                "line": 1,

                "column": 34

              }

            ],

            "path": [

              "query",

              "boards",

              "items"

            ],

            "extensions": {

              "code": "deprecatedField",

              "typeName": "Board",

              "fieldName": "items"

            }

          }

        ]

      },

      "account_id": 18520804

  }
```

4. GET: */updateItemName* - to update the item name in Monday.com by passing the Monday account API token as a param and the request body which contains the query string as an input to call the API URL. Also pass the bearer token response received from the above endpoint.

   http://localhost:8081/updateItemName?token=< Monday.com_User_Token >

Request: { "query": "mutation {change_multiple_column_values(item_id:1259058839, board_id:1259058835, column_values: "{\"name\" : \"Completed Item\"}") {id}}" }

Authorisation: Bearer Token

Params : Pass Monday.com API token as token

Response: {"data":{"change_multiple_column_values":{"id":"1259058839"}},"account_id":18520804}

To view H2 in-memory database:

Application runs on H2 in-memory database. To view and query the database you can browse to http://localhost:8081/h2-console. Default username is **'sa'** with password as **'password'**.

Flow diagram: