**Java Backend Software Development**

**Assignment - 002**

The following assignment can be done using any Java framework e.g., Spring Boot.

The main focus of this assignment will be on the code quality.

**Introduction:**

The server will handle requests to view statements by performing simple search on date and amount ranges.

This can be an API that produce “application/json” data type.

* The request should specify the account id.
* The request can specify from date and to date.
* The request can specify from amount and to amount.
* If the request does not specify any parameter, then the search will return three months back statement.
* If the parameters are invalid a proper error message should be return to the user.
* The account number should be hashed before returned to the user.
* All the exceptions should be handled on the server properly.

**Authentication and Security:**

The authenticated users are:

User:

* Username: user
* Password: user

Access Control Specifications:

* Use suitable security authentication and authorization provider.
* Unauthorized user cannot perform the request and proper message will returned to the user.

**Note:**

1. Database schema and data (\*.sql) attached with the assignment, you can import it into your local database (e.g., MySQL) or you can introduce a in memory database (e.g., H2 in mem or in disk) within the application and struct the schema and populate the data form the provided dump data, choose which conform you the most.
2. The date and amount fields left as in text format (varchar) intentionally, so applying ranges cannot be in the database level, take care of that in the application level.
3. Give attention to the following:

* Object Oriented Design.
* Logging and Exception Handling.
* Code Maintainability, Reusability & Scalability.
* README.md that explains how the code can be run and the tests can be performed.
* The source code should be pushed to GitLab repository that shared with you.