A

Low Level Detail

on

SQnnect

Submitted to:
Mr. Abhishek Jain
(AVP Engg.)

Submitted By:
Trainees (2022)

AIRLINQ Software Pvt. Ltd.
Jaipur Rajasthan 302203

PROPRIETARY INFORMATION

The information contained herein is proprietary to Airlinq Inc. Use or disclosure of this document or the information contained herein, for any purpose other than that for which it was furnished is not permitted or it shall not be disclosed or divulged to any third Party without the prior written consent of Airlinq Inc

COPYRIGHT NOTICE

Document Version Control

Date	Version	Author	Description
20-Jul-2022	4.0	Ashish	WebApp with Spring boot framework

AIRLINQ

Table of Content

1. Introduction

1.1 Scope of this document

The purpose of this document is to provide an overview of Low-level design for the integration of for API, interfaces between the MySQL Database and Springboot Framework.

1.2 Intended audiences

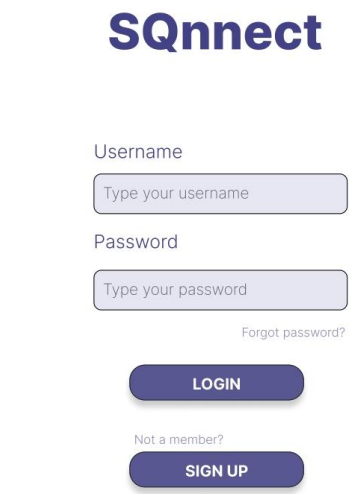
- QA Team
- Development Team

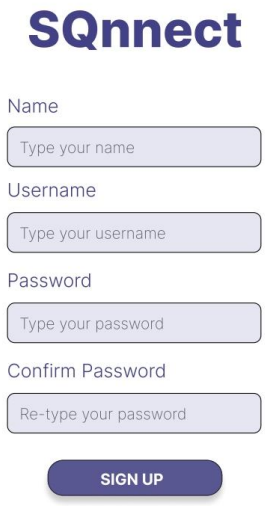
1.3 System Overview

The web application intends to connect the database through SpringBoot and fetch the queries from MySQL on a single click from a web page and display the result on the following web page. The vision of this web application is to save time running the queries from the console and provide an easy to use interface for a good user experience.

1.4 App Overview

- **Step 1:** The user will be displayed a login page, on this page the user can either login or sign up accordingly.





- **Step 2:** The user will be redirected to the home page, on this page the user will be displayed a button which will redirect them to the query fire page.

- **Step 3:** After the home page the user will be redirected to the query fire page, on this page the user will be shown a table with questions alongside " Run " buttons which will fire the respected query.

SQnnect

ID	QUESTIONS	BUTTON
1	Lorem ipsum dolor sit amet, consectetur	RUN
2	Lorem ipsum dolor sit amet, consectetur	RUN
3	Lorem ipsum dolor sit amet, consectetur	RUN
4	Lorem ipsum dolor sit amet, consectetur	RUN
5	Lorem ipsum dolor sit amet, consectetur	RUN
6	Lorem ipsum dolor sit amet, consectetur	RUN
7	Lorem ipsum dolor sit amet, consectetur	RUN

Step 4: After running the query, the user will be redirected to a Resultset Display page where a table will be displayed.

SQnnect

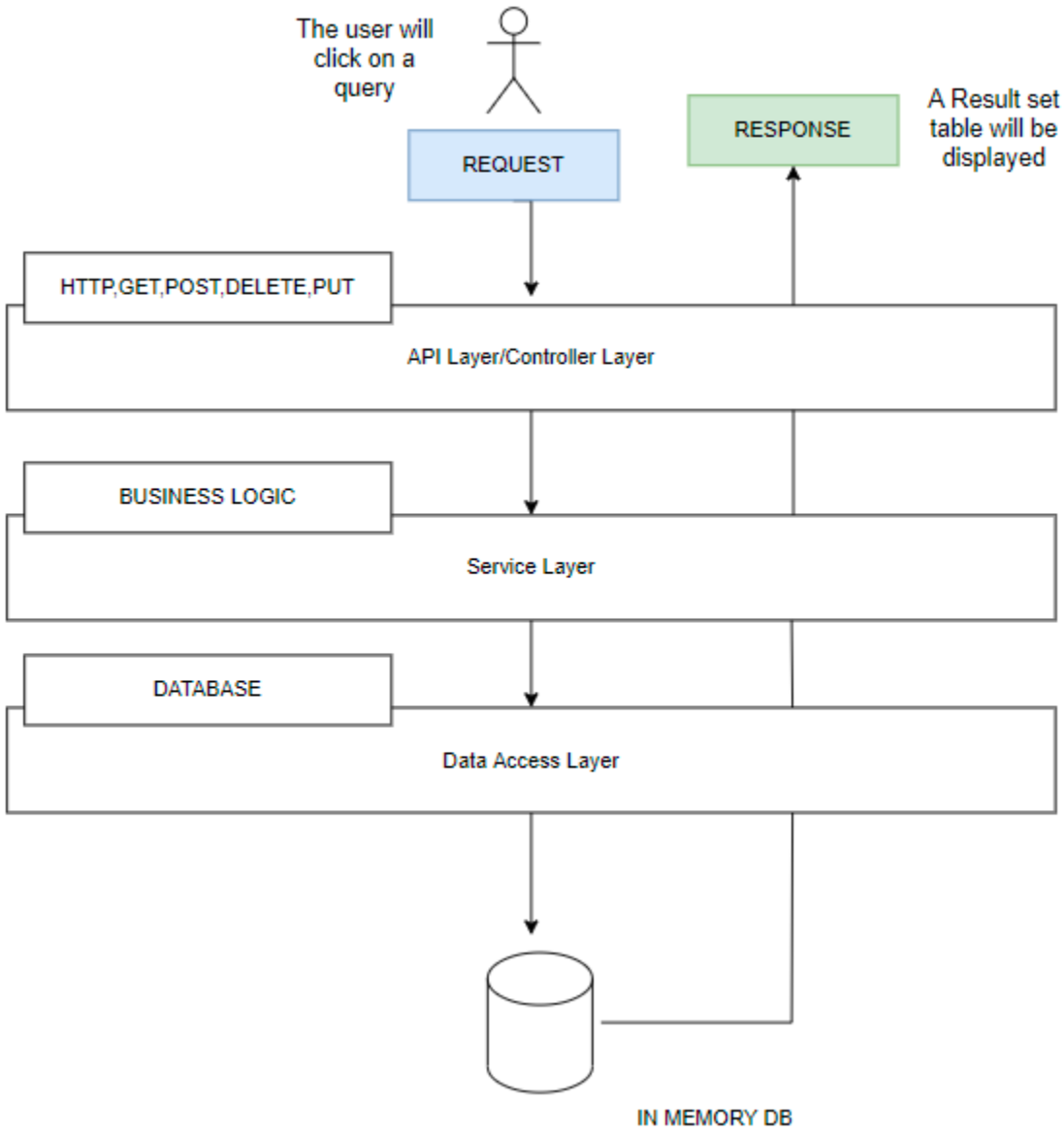
ID	LOREM	LOREM IPSUM	LOREM
1	Lorem ipsum	Lorem ipsum	Lorem
2	Lorem ipsum	Lorem ipsum	Lorem
3	Lorem ipsum	Lorem ipsum	Lorem
4	Lorem ipsum	Lorem ipsum	Lorem
5	Lorem ipsum	Lorem ipsum	Lorem
6	Lorem ipsum	Lorem ipsum	Lorem
7	Lorem ipsum	Lorem ipsum	Lorem

GO BACK

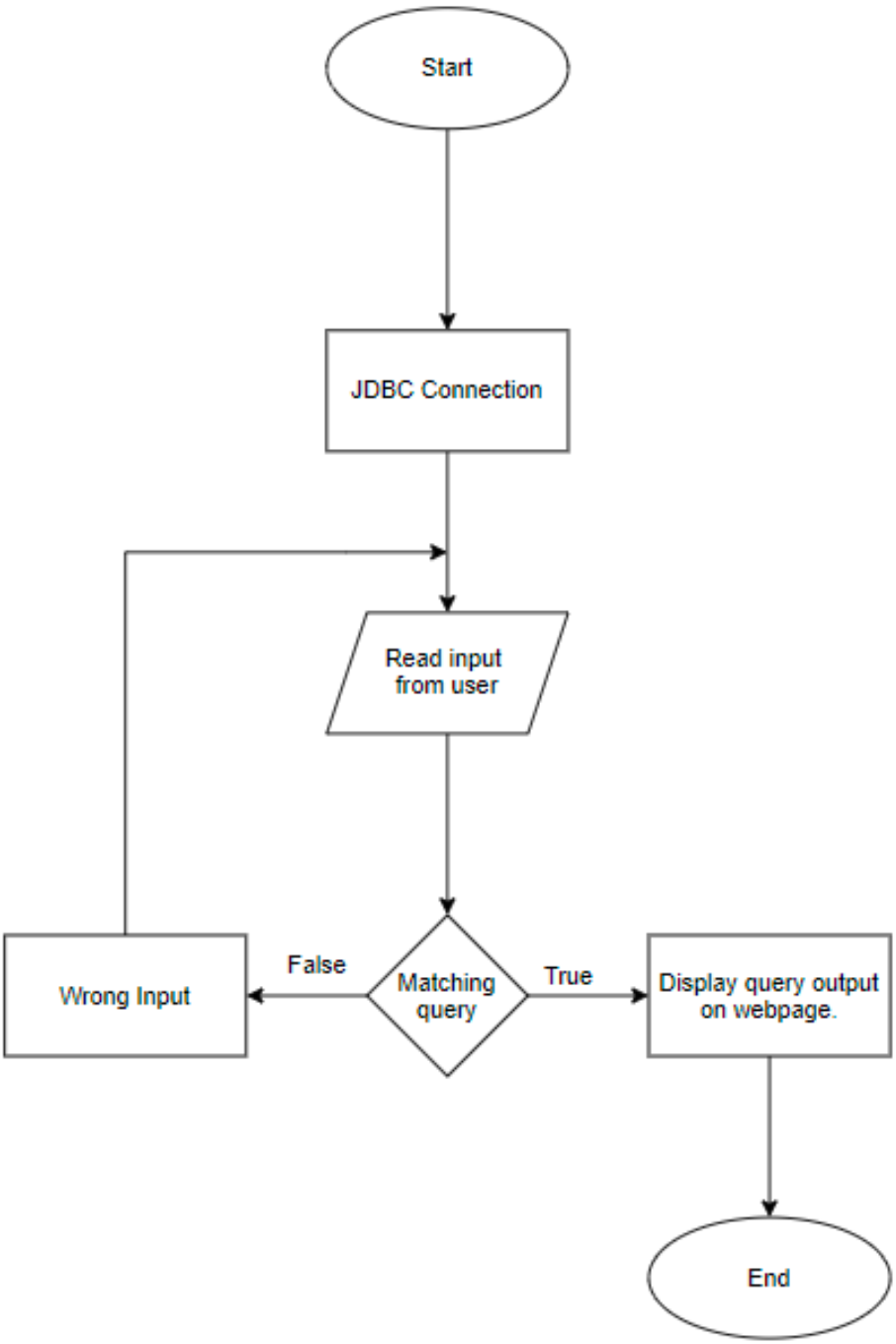
2. Low Level System Design

- First we'll create a Springboot Project.
- Set-up a database
- Install the required dependencies in Springboot (Spring Development tool, MySQL Driver Dependency, Spring JPA, jQuery)
- In Springboot properties we'll establish a connection between MySQL and Springboot
- Create required html pages
- Create a Login page (From here we'll authenticate users)
- Create a Signup page (From here we'll add users to the database)
- Create a Homepage (Here the user will get a button to redirect to a query fire page)
- Result Set display page (The users will get redirected to this page after firing a query and will be displayed a resultset table)
- Create a button on the Result set display page to redirect the user to the query fire page

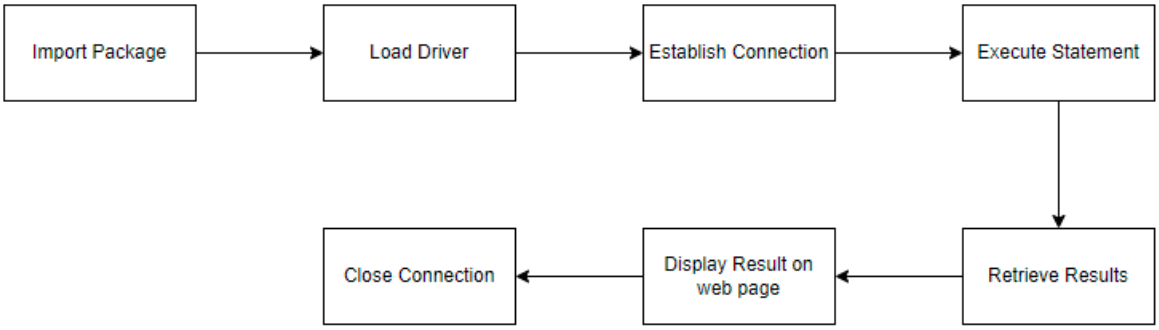
2.1 Sequence Diagram



2.2 Flow Chart



2.3 Navigation Flow

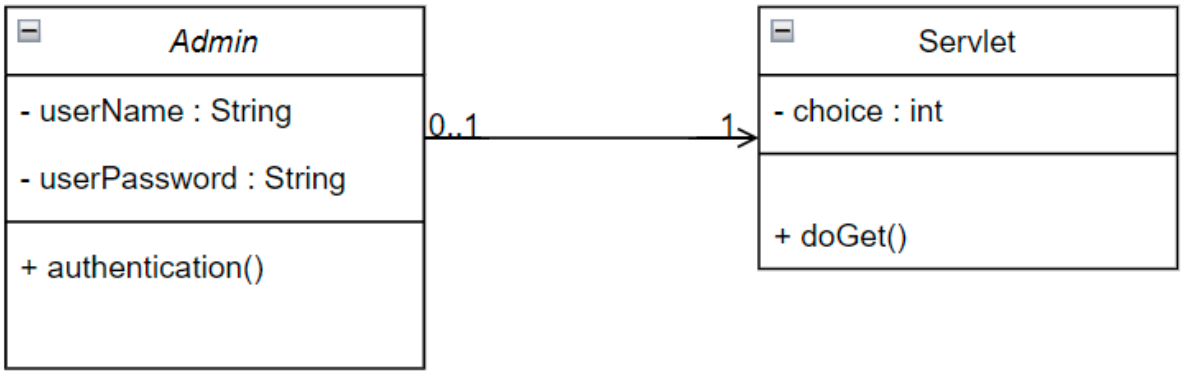


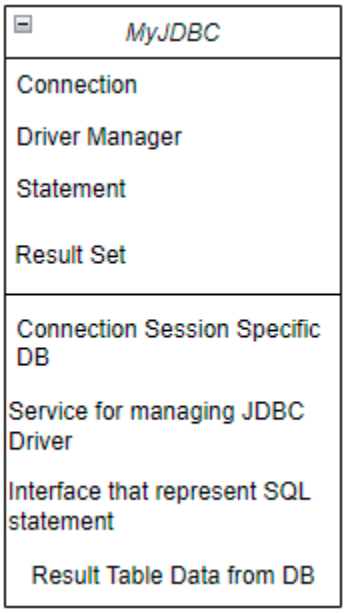
2.4 Localhost Validation

- Username & Password validation for MySQL server
- Username & Password validation for the user authentication on the web page

2.5 Component Design Implementation

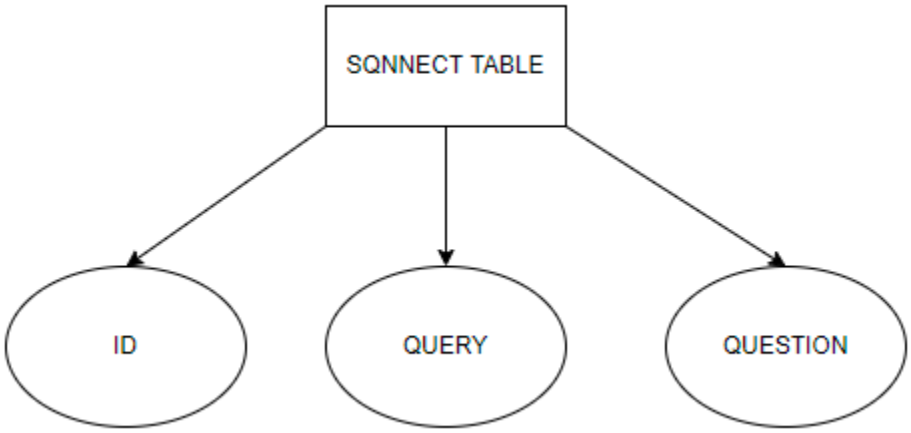
A. Class Diagram





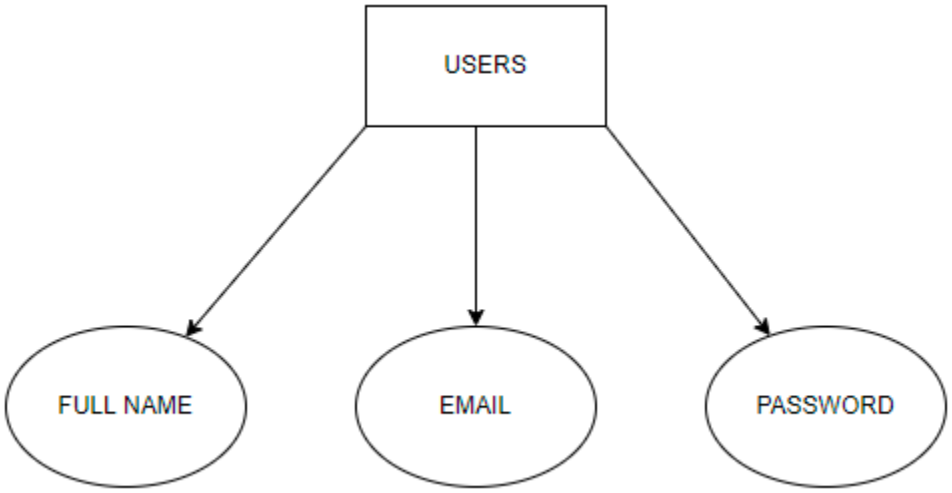
B. Entity Relationship Diagram

1. SQnnect Table (Query Table)



This table consists of the Query questions to fetch the data from the Northwind database.

2. User Details Table



This table consists of the User Credential (Email and Password) Details

C. Other Implementation

- MySQL Server
- JDBC
- Servlet
- SpringBoot Framework

2.6 Configuration Settings

- Added SQL Queries and assigned unique ID to each query

3. Data Design

3.1 List of key schemas/Table in database

- Schema : Northwind
- Tables : Categories, Customers, Employees, Order Details, Orders, Products, Region, Shippers, Suppliers, Territories, Employee Territories, sqnnect_table, usersqnnect.

3.2 Data Tables

1. User Details Table

id	Username	Password	FullName
1	Sahil	sahil123	sahil saiwal
2	Ashish	ashish123	ashish kumawat
3	Yash	yash123	yash sharma
4	Harsh	harsh123	harsh pareek
5	Mayank	mayank123	mayank jain
NULL	NULL	NULL	NULL

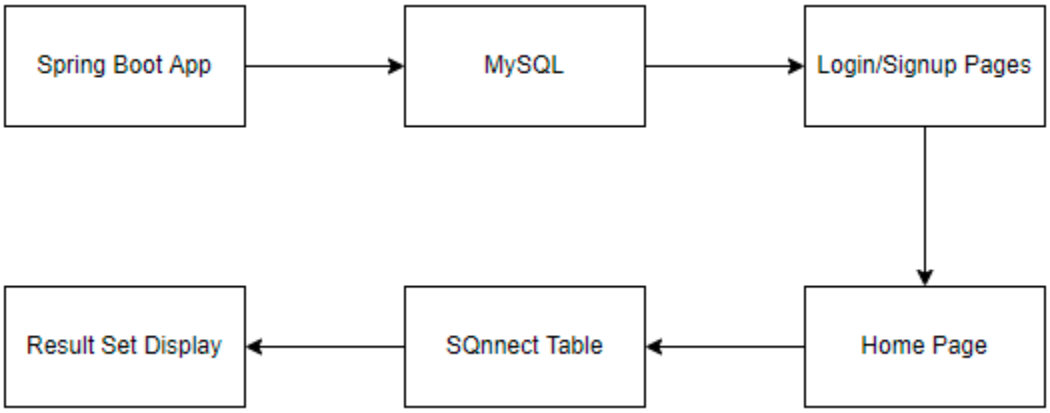
2. Query Table

id	Problems	Queries
1	Get all the products of a Supplier sorted in order of their price.	SELECT ProductName, SupplierID, unitprice from Products WHERE SupplierID = '<updateValue>' ...
2	Add price of all the products for all Categories and get the resul...	SELECT categories.categoryname, Sum(products.unitprice) as TotalPrice from categories inner joi...
3	Get order details for all customers.	SELECT customers.contactName, `order details`.* from ((`order details` INNER JOIN orders ON ...
4	Get order details and products associated with a particular order...	SELECT customers.contactName, products.productName,`order details`.* from (((`order details`...
5	Get all the products for a Supplier in a row. [Products should be ...	SELECT group_concat(productName) AS Product from products WHERE SupplierID = '<updateVal...
6	Write a function to calculate the total price of a Order [Paramet...	SELECT totalpriceorder(10248);
7	Create a view of customers, order details and orders. Name the...	SELECT * from vw_customers_order;
8	Create a table consisting of all the columns present in 'vw_custo...	SELECT * from sp_insert_customer_order;
9	Create a table consisting of all the columns present in 'vw_custo...	SELECT *from sp_insert_customer_order_table;
10	Create a new table consisting of "customer id","customer_name"...	SElect * from categories;
NULL	NULL	NULL

3.3 Details of access levels on key tables in scope

- Full Access: Read, Write, Delete

3.4 Key Design considerations in data design



4. References

[1] AIRLINQ, “ 008-GCT-CMP-B2B CRM Interface-V1.3.docx “, 22-Feb-2022

[2] previous_toolbox_user (2007), “ Standard LLD Template”, community.cisco.com, Nov 27 2007

[3] “ UML Class Diagram”, Javatpoint.com