**Advance Programming Documentation**

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The apllication “Micro-Star CableVision” – is a minor cable company in the Gordon Town area, that provides digital cable and internet access services. “Micro-Star CableVision” is a complaint logging system that will capture all customer complaints and queries. Upon receipt of a complaint, a customer service representative will log the complaint and assign/schedule a service technician to visit the site to rectify the issue. Micro-Star CableVision has been jointly developed Shnaya Connell, Abi-Matthews Gordon, Kyle White with aid of the Advanced Programming Module (CIT3009) offered at the University of technology ,Jamaica.

This application was developed based on the requirements of Micro-Star Cable Vision. The purpose of the application is to allow seamless communication between MicroStar client, their customer server centre and their technicians. The application is designed on a client-server architecture and is organised into three components. The base component contains all the common code necessary for both client and server to operate together while a client component contains all the codes necessary for the client only, in addition to the common code and the server component contains all the code necessary for the operations of the server.

The client application acts as a front facing interface which can be used to interact with the application for daily use while, the server application provides the backend functionality. The applications communicates over TCP/IP.

**Technologies Used**

The application will be built on open-sourced platforms namely:

1. The Java Programming Language
2. MySQL Database
3. The application will also utilise server third party libraries including, MySQl Connector, Log4J2 and Hibernate 5.

**User Access Levels**

There are two types of employees in the Micro-Star CableVision application

1. Representative

2. Technician

3. Customer

1. Representative Representatives are employees that are able to view a list of services on the dashboard along with the number of resolved and outstanding complaints. Representatives are employees that are able to view all Customer complaints relating to a particular service and are able to assign a complaint to a technician.

2. Technician Technicians are employees that are able to view a particular Customer complaint and the details relating to that issue, so that they may prepare a response, including proposed date of visit.

3. Customers are persons that register themselves in the ‘Micro-Star CableVision’ application by filling the registration form. Registered customers are able to either lodge a complaint or make a query, view all past complaints in a list and view a specific complaint and all its associated responses. Customers should also be able to view a list with details of past payments.

**Test Data**

Customer:

Username: abi1

Password: P@ssword1

Customer Representative:

Username: admin

Password: P@ssword123

Technician:

Username: abie

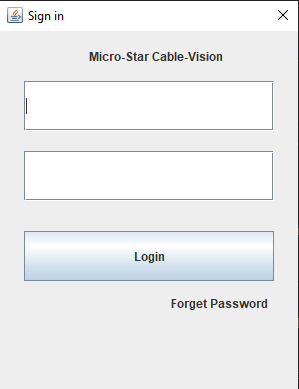
Password: P@ssword123

**Server**

**Step 1:** As with all Client Server Applications the Server must be started first. The server is started by clicking the run command in the Server Application in Java Console.

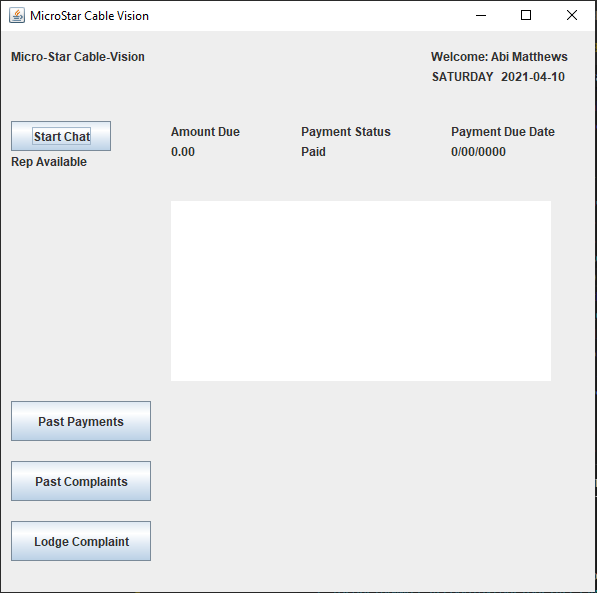
**Graphical User Interface**

**Login**

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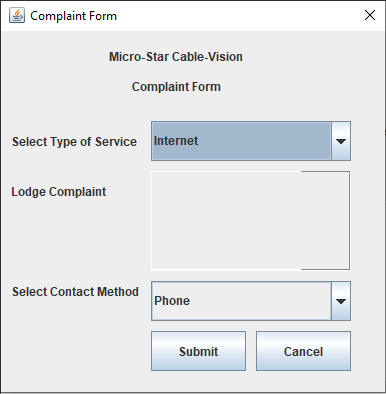
**Step 2:** When the client server is executed, a display pops up with the login window that prompts the user for their credentials. The representative, technician or customer can enter their credentials and click the login button to be redirected to their respective home page.

Customer Dashboard



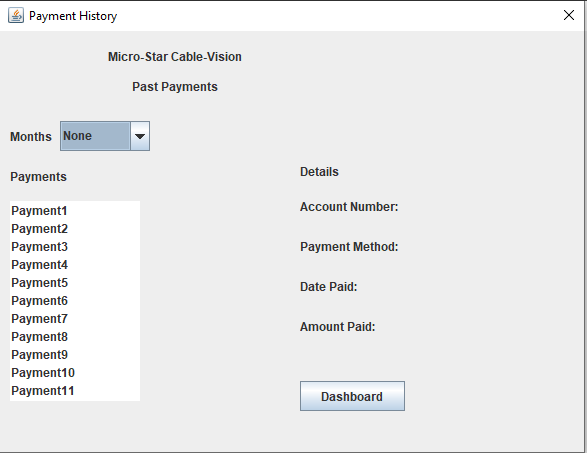
**Step 3:** After logging in, the customer will see the dashboard with their name, today’s date, payment status, amount due, payment due date. The customer is able to send a query, to view past complaints, view past payments or lodge a complaint. The user is also able to utilize the live chat feature.

Complaint Form



**Step 4:** Upon clicking the Lodge Complaint button, a customer is able to select an option from the drop-down boxes and enter their query within the text area.

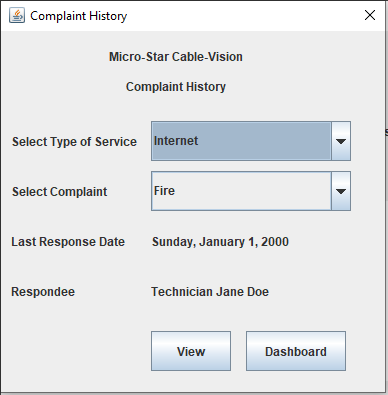
1. Select Service Type.
2. Select Contact Method.
3. Click inside the text area and write the query.
4. Select the Send Submit button.

Payment History

**Step 5**: To view payment history a customer can simply Click the ‘Past Payment’ button from the dashboard. The application will generate the screen looking similar to the image above will the customer information being displayed; Account Number, Payment Method etc. User/Customers can select from the drop-down a specific month’s payment they are querying.

Once select, the system will generate all the payments made for that specific month. Users can use the “Dashboard” button to go back to the dashboard view.

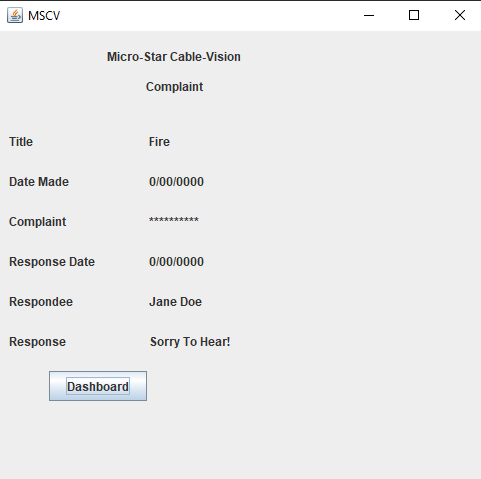
Complaint History



**Step 6:** Customers can view a past complaint and all its associated responses.

In Order to View Past Complaints, the following step must be taken:

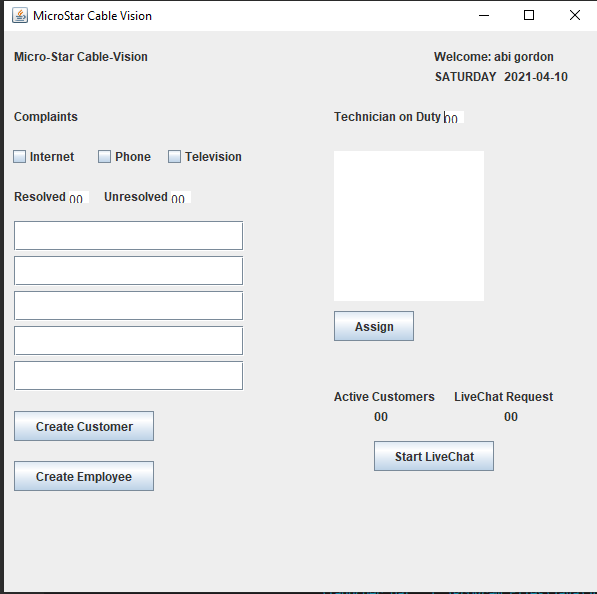
1. Select the “**Past Complaints**” on the customer dashboard. After which, the user should see a pop up box where customers can select options of **Type of Service** **and Complaint Category** from their respective drop-down. Then the **View** button should be selected.



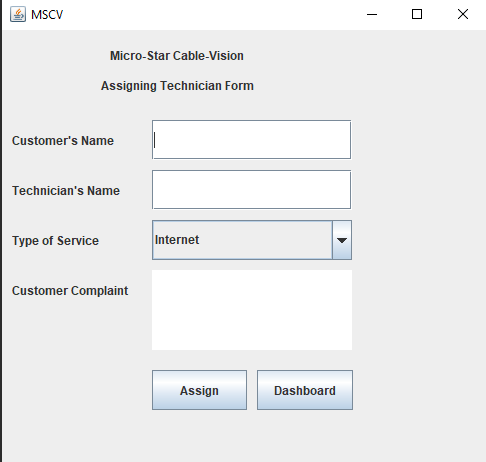
Specific Complaint

**Step 7:** After the **View** button is select, an pop up box will appear similar to the one shown on the right. It will display all the detailed information about a compliant.

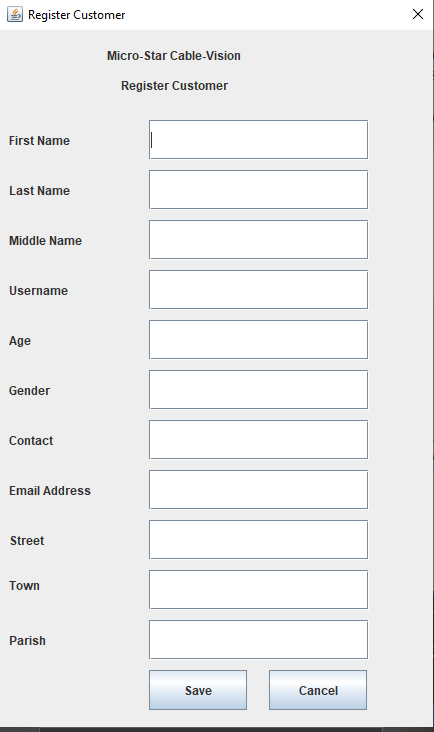
Representative Dashboard



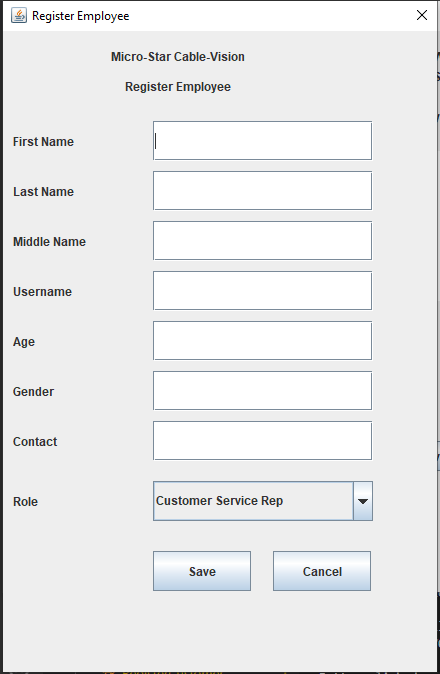
Assigning Technician



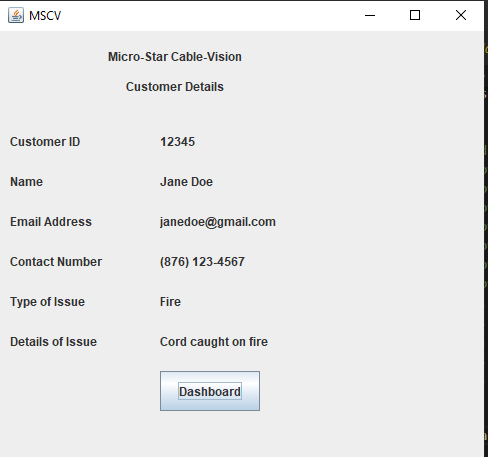
Register Customer



Register Employee



Viewing Customer Details



Preparing Response

