C868 – Software Capstone Project Summary

Task 2 – Section A

Capstone Proposal Project Name: Cutting Edge Scheduling Application

Student Name: Felix Daniel Berinde

<u>Table of Contents</u>

Contents

A. Business Problem

A.1. The Customer

The customer, Cutting Edge Consultants, is a small local business which was quickly growing. Their scheduling was being difficult to manage on paper and they needed a better way to keep track of appointments. Taking everything into consideration, and the business already using Windows 10 computers, it made sense for them to want a standalone application.

A.2. Business Case

Many applications on the internet were considered by the partners of the business, however, they were unable to find a suitable candidate due to the owners wanting a custom alert feature at login. The alert feature is important to the business as several of the consultants are forgetting the correct time for meetings. It is impacting customer relationships. A calendar to provide constant reminders is important for the owner. They felt their consultants will be more mindful and even be able to remind each other throughout the day if they had access to everyone's schedule. Reporting allows for the owner to get statistics regarding consultants and customer retention.

A.3. Fulfillment

The scheduling application will fulfill the needs of the business by providing an easy to use Graphical User Interface (GUI) that will allow the users to navigate the application with ease on their Windows machines. When the application is run, a login screen will appear requesting for a username and password. If valid credentials are provided, the application will activate an alert feature when the user logs in and any upcoming appointment's details will display. The main screen will allow the user to navigate to customers, appointments, calendar, and reports. Many users will find the calendar feature of the application useful as it will provide a visual representation of their schedule. Users will be able to add, modify, or delete customer as well as appointment data from the table. When a user tries to add or modify new data to the database, the user's inputs will be validated prior to allowing the change to prevent any unexpected behaviors. Data validation also prevents human error from occurring. Delete queries will also be validated to prevent any dependent data from being deleted. Reports will be able to be generated regarding appointment types, consultant schedules, active customers, and tracking of user logins will be separately logged in a log file to catch any suspicious activity. The application would be installed onto each user's windows machine. Initially any paper records will need to be manually entered into the system.

B. Existing Gaps

The current system in place is traditional paper and pen to keep track of all the consultants' appointments. The issue the business is having is the consultants are forgetting about their meetings with customers and ruining customer relationships causing a loss of business. Traditional paper and pen are also susceptible to getting lost, damaged, or stolen. There is currently no standard in place in how appointments are handled. Some write the information down on sticky notes. Most write it down in a notebook. Ultimately it falls on the consultant to ensure they are on time for any client appointments. Having the scheduling application will fill in the gaps and provide transparency for all the consultants to see each other's schedules to allow each other reminders.

C. SDLC Methodology

The methodology chosen for this project is Waterfall. This method is a great fit for this project due to all the requirements being clearly defined from the beginning. The main benefit of the Waterfall methodology is having all the requirements from the start and not deviating from what was planned. All issues are resolved in the beginning phases.

The first stage of Waterfall can be referred as the "Requirements Gathering" stage. The primary goal of this stage is to gather a comprehensive understanding of what the customer or stakeholders expect from the software project. It involves defining and documenting the project's scope, objectives, and requirements in detail.

The second stage of Waterfall can be referred as the "System Design" stage. While in this stage the focus shifts from gathering and documenting requirements to designing the system architecture and planning the overall structure of the software.

The third stage of Waterfall is known as the "Implementation" stage. In this phase, the focus shifts from planning and design to the actual development of the software system based on the requirements and designs established in the previous stages. The primary focus of this stage is to translate system design and requirements into working code.

The fourth stage of Waterfall is the "Testing" stage. In this stage, the software that has been developed is thoroughly tested to ensure it is free of defects, functions correctly, and meets specified requirements.

The fifth and final stage of Waterfall is the "Maintenance" stage. This stage focuses on providing ongoing stability, functionality, and improvement of the software system after it has been deployed. Activities in this stage can include updates, bug fixes, performance monitoring, user support, security updates, and documentation maintenance.

D. Deliverables

There are 2 types of deliverables that are associated with the Waterfall SDLC that the customer has requested. They are project and product deliverables listed below:

D.1. Project Deliverables

- Project Schedule
  - The project schedule will include a timeline for the development of the application and a proposed schedule. Once the project starts is when the timeline begins and then will be delivered.
- Test Plans
  - The users will be provided with an opportunity to test and verify that all the requirements are met by being presented an outline of the testing and verification plans. This will determine if all requirements are met and marks completion of the project.

D.2. Product Deliverables

Product Deliverables represents what is produced to deliver to the customer.

- Wireframes
    - These are low fidelity “rough” designs of how the Graphical User Interface (GUI) of the application will be displayed.
- Mockups/Layout
    - These are high fidelity designs of the GUI which do not include any functionality. This is to show the stakeholders what the application is going to look like when complete.
- Prototype
    - This is the final design of the GUI with some functionality. This is the last step before development begins of the final product.

E. Implementation

Implementation occurs when the software starts to become developed. Small pieces of code are tested prior to being released to production. There is no formal system in place at Cutting Edge so there is no concern for any downtime as currently they don’t have a system that needs to be migrated over alleviating the risk. The deployment of the application can be done whenever the customer is ready for the change. After the software has been validated and all users have been trained an immediate switch over can occur if the system is already in place at the production environment. It will just be a matter of installing the software on each individual machine.

F. Validation and Verification

The application with be verified by several means. Unit testing is one of the methods that will be used to validate the software and ensure that the application continues to meet the requirements. User Acceptance Testing will be completed usually by stakeholders, users, managers, and any other role that this software impacts. Normally this is the final approval before released. Once all involved parties give their approval, the application will be ready for deployment.

G. Environments and Costs

G.1. Programming Environment

Cutting Edge has several Windows machines already available to be used for the environment and requested for them to be used.

- Windows 10 Pro Operating System
- Microsoft SQL Server 8.0.31
- Visual Studio 2017

G.2. Environment Costs

Due to this being the first software application created and used for Cutting Edge, there will be some initial startup costs. For now, the database will be hosted on a local machine in Cutting Edge’s office space so they would be responsible for the costs of keeping it powered and maintaining it. In the future if the application needs to be scaled due to business growth and demand it will require migration to a server and additional cost will incur. An annual license rate would be charged at a flat rate of $1000 per year. Training guides will be including in the initial setup costs, however, responsibility training users on how to use the application will fall on Cutting Edge. If changes need to be made to the program the developer will charge a rate of $40 per hour with fifty cent charge for every mile traveled. A database administrator will also need to be hired to manage the database as currently user registration was not one of the requirements requested by stakeholders. Certain database administrator tasks can also be completed remotely by the developer at a rate of $40 per hour at the client's request.

G3. Human Resource Requirements

The significant costs associated with the application is about training users on how to use the software. Training does not fall on the developer and is the sole responsibility of Cutting Edge Consultants. Travel time for initial setup will be charged at a rate of $40 per hour with a fifty cent per mile travel fee. Any unforeseen additional cost will fall on Cutting Edge Consultants.

H. Project Timeline

Phase	Milestone/Task	Deliverable	Description	Date(s)
Pre-development	Requirements Gathering	Requirements	Meeting with customer to discuss the plans and define requirements	08/10/2023 – 08/12/2023
Design	Create wireframe and mockup	Low fidelity wireframe High fidelity mockup	Development creates the UI from requirements	08/13/2023 – 08/20/2023
Implementation	Start building the software	Software	Start creating the application based on requirements and design	08/21/2023 – 08/31/2023
Verification/Testing	Verify software satisfies requirements with tests	Test Outcomes	Testing user inputs for validation and user acceptance testing	09/01/2023 – 09/10/2023
Deployment	Travel to Cutting Edge Consultants Office for deployment	Solve any unforeseen issues or bugs.	Validation of deployment ensuring the application works in the production environment.	09/11/2023 – 09/12/2023
Maintenance	User feedback, testing, and providing improvements	Unwavering support and the ability to make improvements.	Development provides support and feature enhancements at the client's request	09/13/2023 – 09/13/2024

C868 – Software Capstone Project Summary

Task 2 – Section C

Capstone Proposal Project Name: Cutting Edge Scheduling Application

Student Name: Felix Daniel Berinde

Table of Contents

Contents

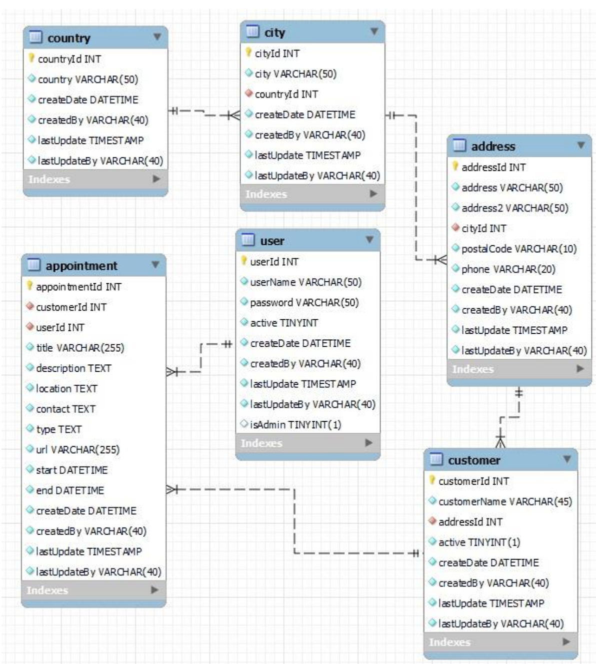
Task 2 Part C – C868 Software Development Capstone

Application Design and Testing

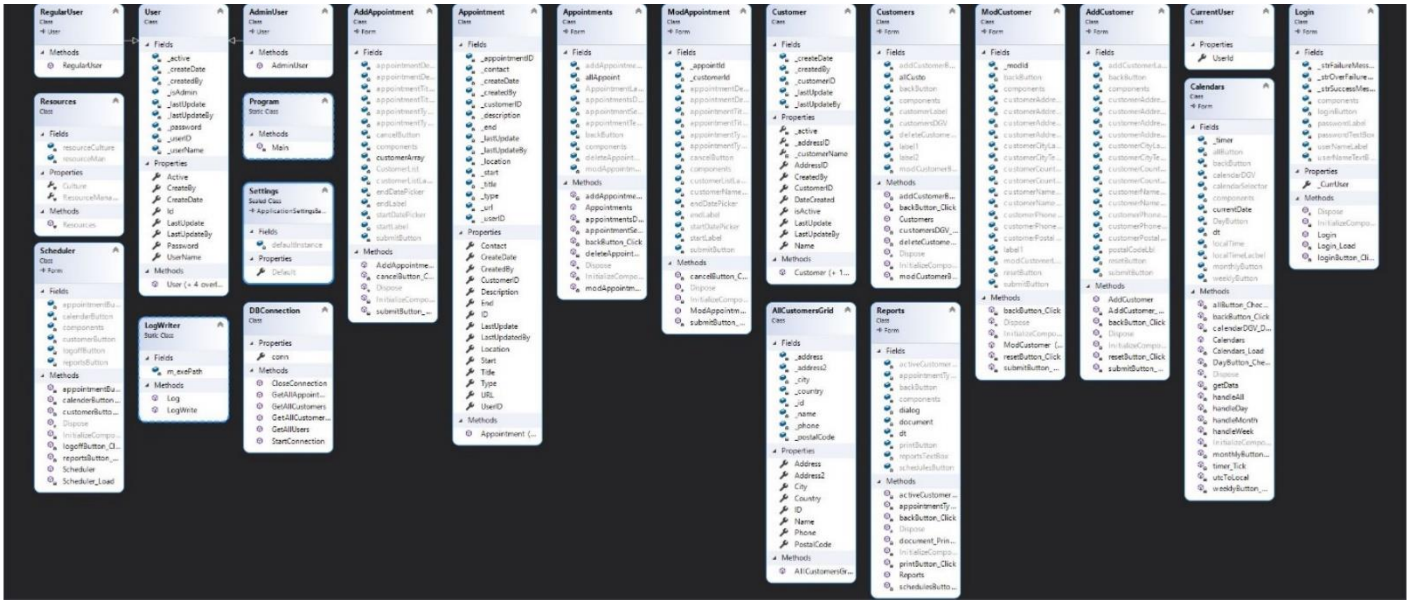
Design Document

ERD Design

Included below is the Entity-Relationship-Diagram (ERD) of the database. The data for this project is in 6 different tables. The appointment table has a many to one relationship with the user table where “userId” is a foreign key for appointment. The appointment table has a many to one relationship with the customer table where “customerId” is a foreign key for appointment. The address table has a many to one relationship with the address table where the foreign key for customer is “addressId”. The address table also has a many to one relationship with city where “addressId” is the foreign key for the city table. The city table has a many to one relationship with the country table where the “countryId” is the foreign key for the city table.



Class Design

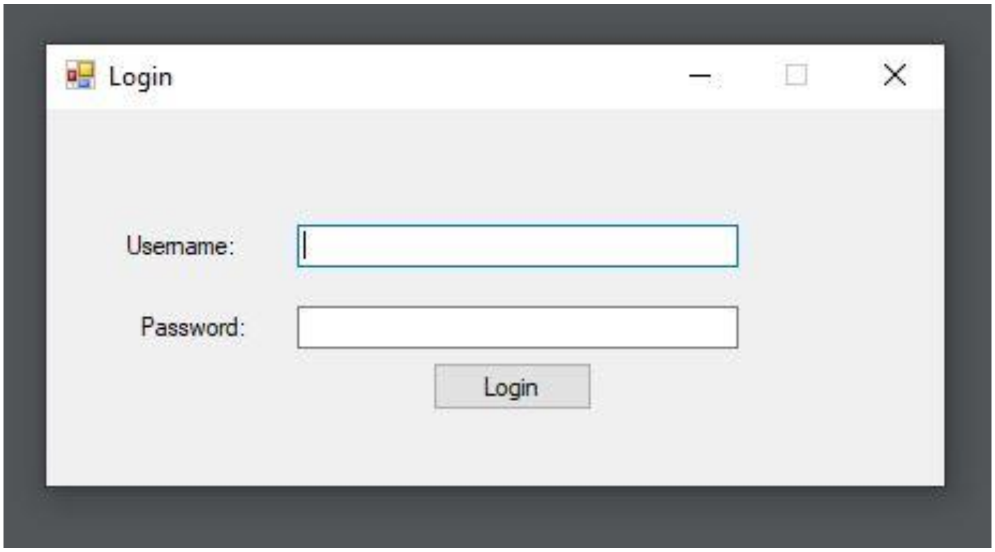


There are many classes that were created for the application to function correctly. Customer, Appointment, User, and DBConnection classes provide a majority of the functionality for the application. The above listed classes are not a comprehensive list as there are too many to mention. The Customer, Appointment, and User classes main responsibility is to define what attributes define a Customer, Appointment, or User and allows the application to create those objects for them to be added, modified, or deleted from the database. The DBConnection class provides functionality to connect and disconnect from the database. Defined in DBConnection are several methods that manipulate the data in the database.

UI Design

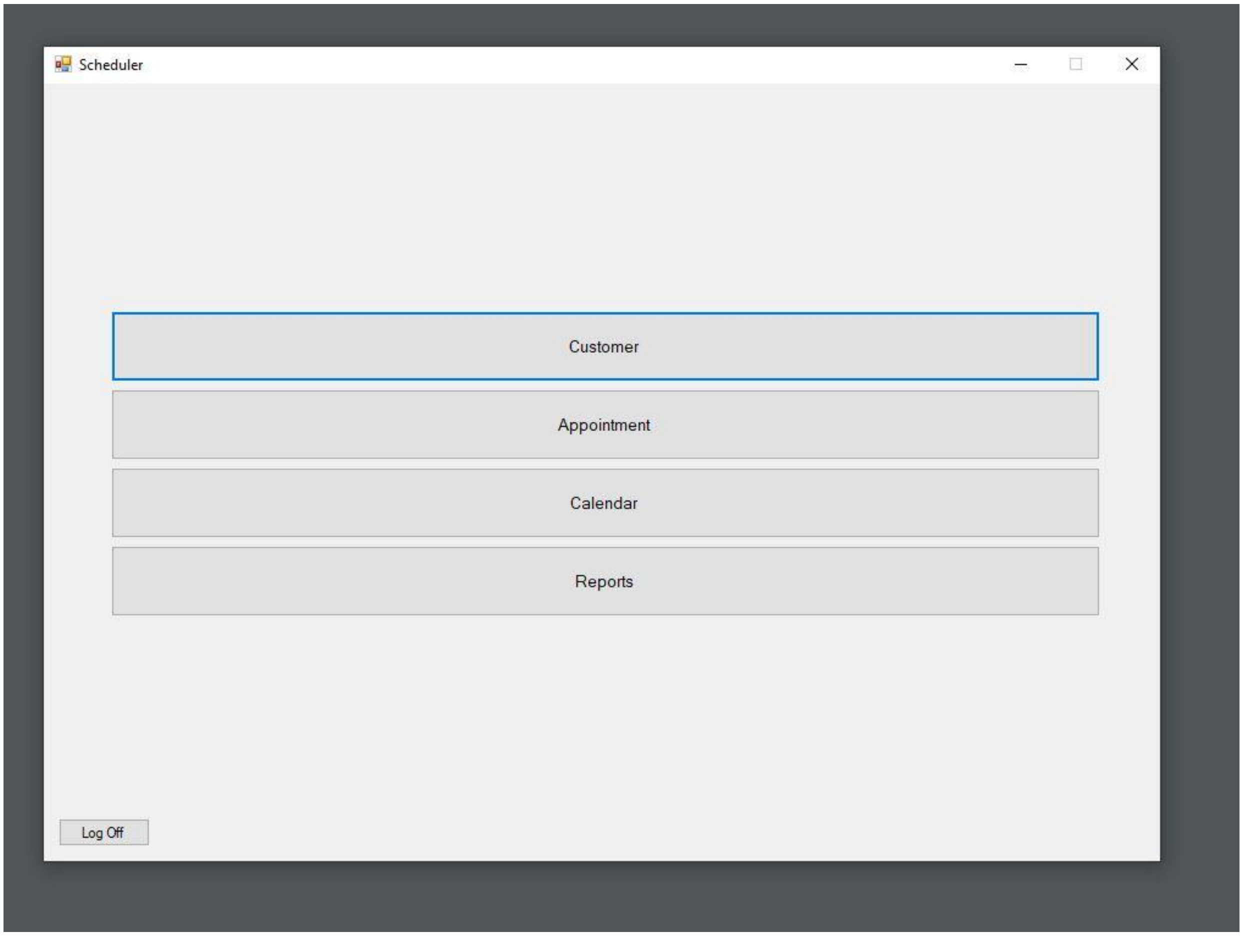
The User Interface (UI) for the application has 10 different forms. Login, Appointments, Scheduler, AddCustomer, AddAppointment, Customers, Calendar, ModCustomer, ModAppointment, and Reports. When starting the application, the user is shown a login form prompting the user to input a username and password.

High fidelity Login Form:



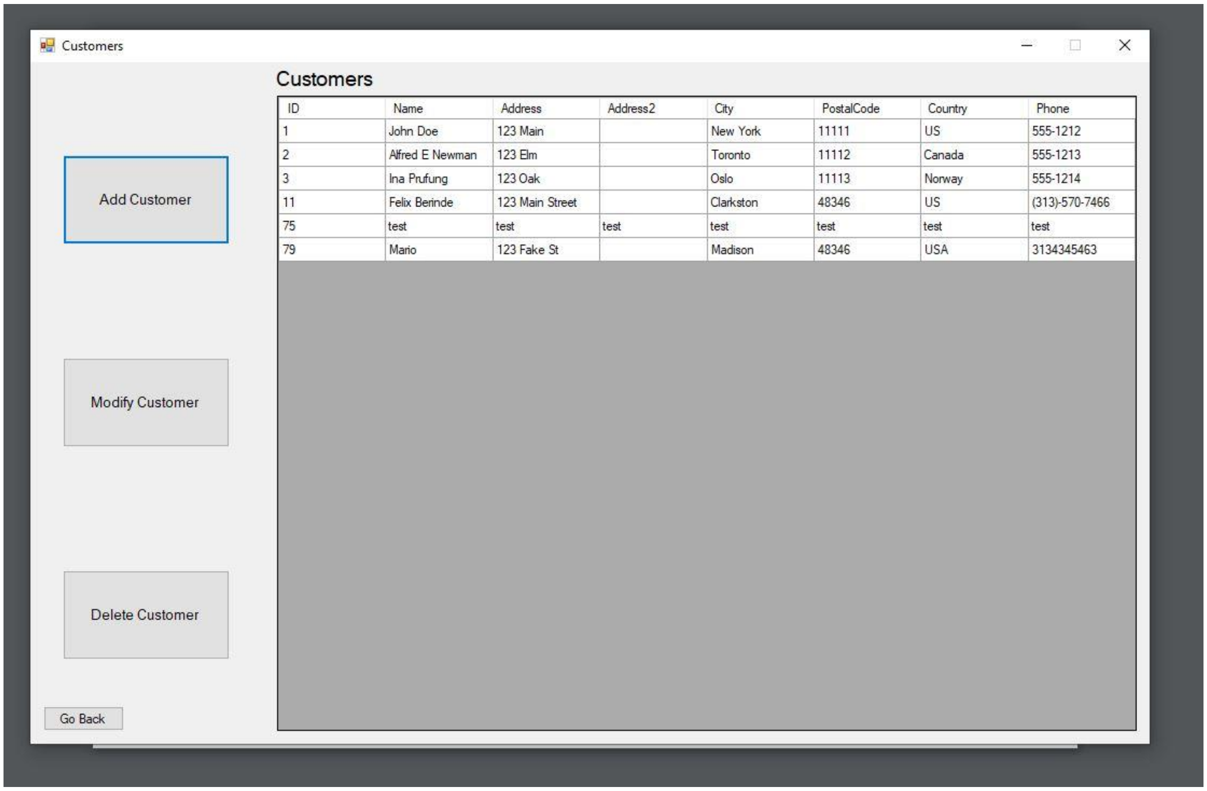
After successfully logging in, the login form disappears, and the Scheduler form appears with four buttons. If the user clicks on any of the buttons it will close this window and open the form that is associated with the buttons name. If the user does not have admin privileges, they will be unable to navigate to the reports form. Instead, they are provided with a MessageBox notifying them they don’t have the correct privileges.

High fidelity Scheduler Form:

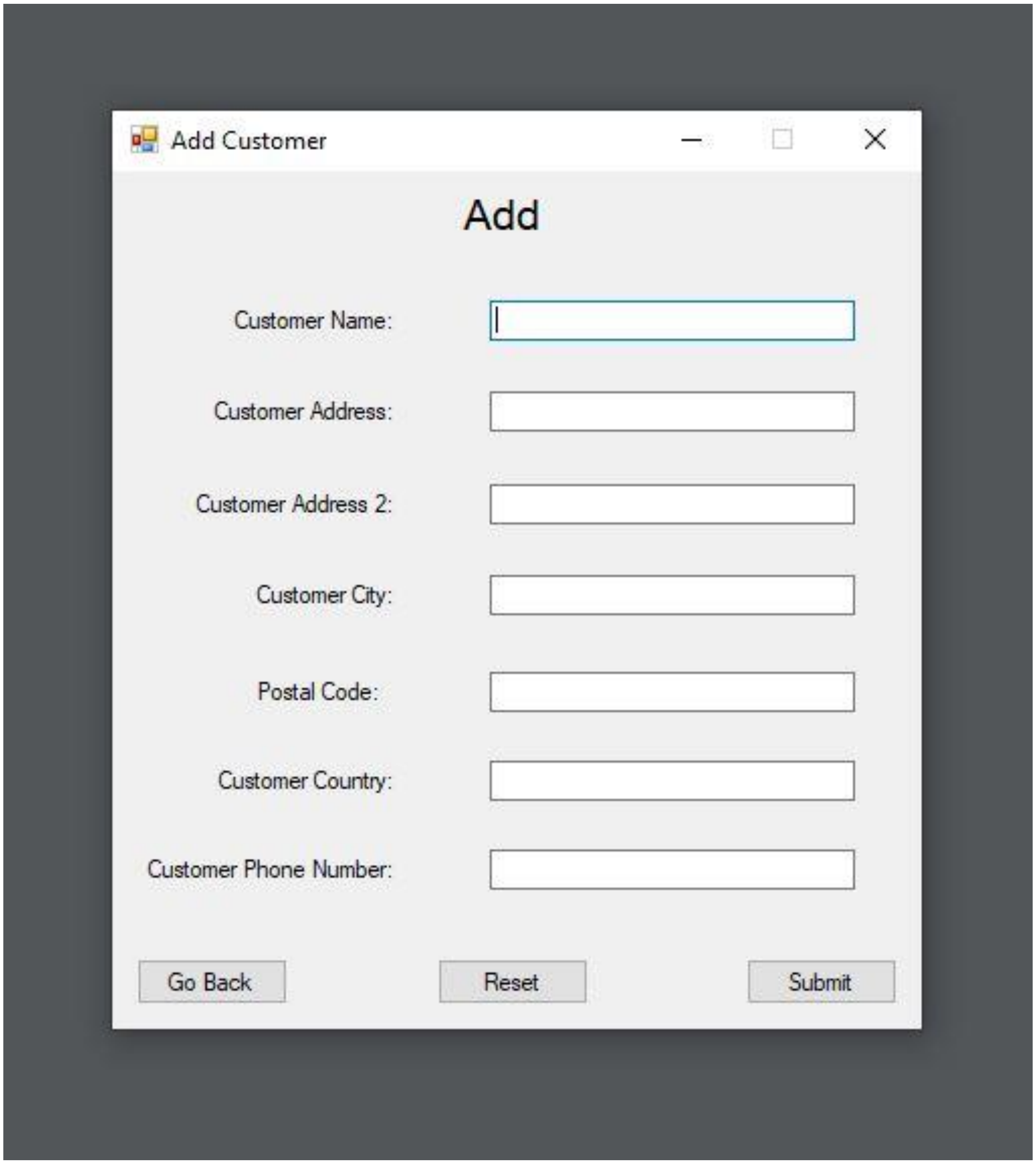


If the user clicks on the Customer button it navigates them to the Customers form where all the customers and their information is displayed with an add customer button, modify customer button, delete customer button, and a go back button. The Customer information is displayed in a DataGrid.

High fidelity Customer Form:

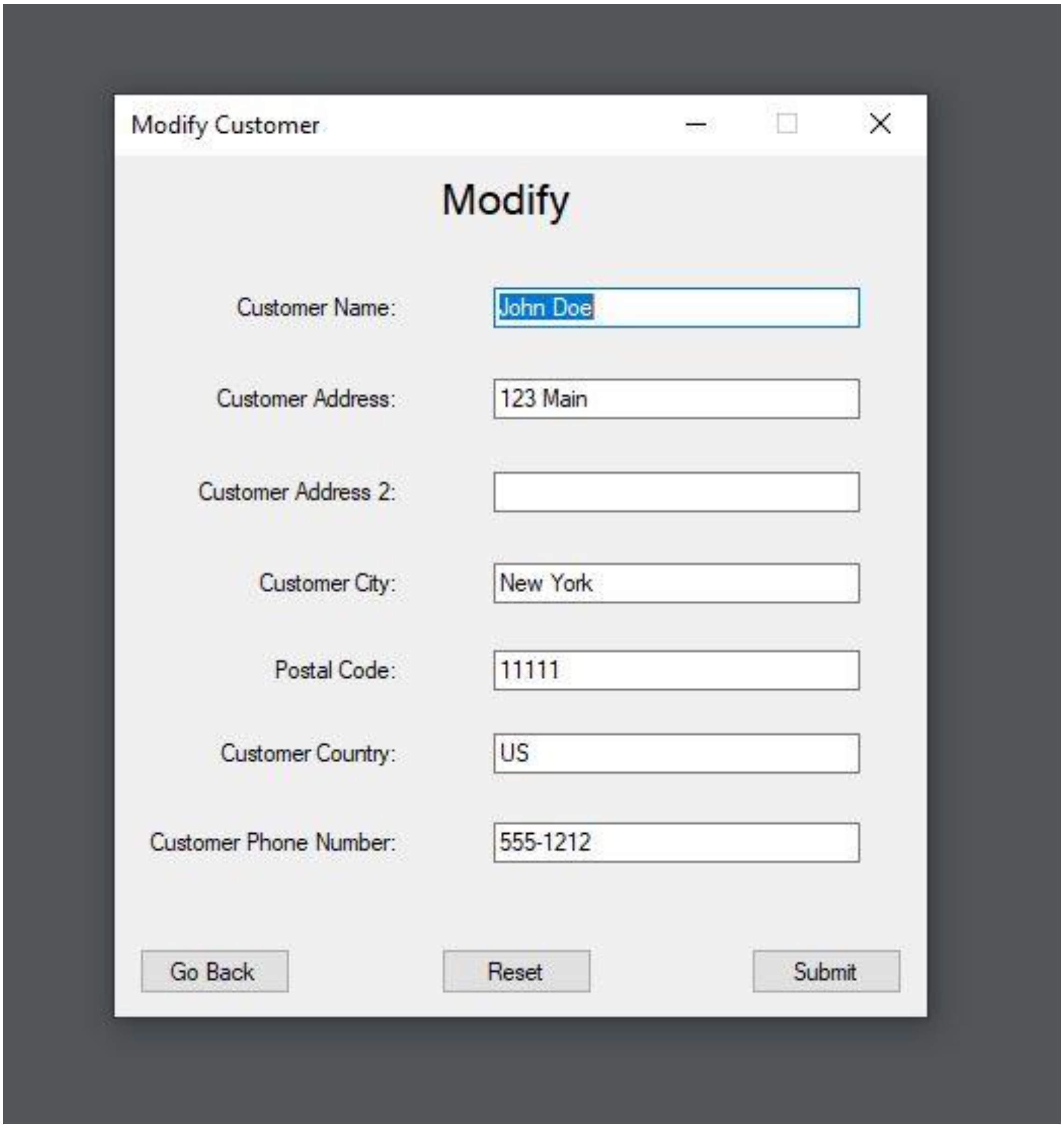


High fidelity Add Customer Form



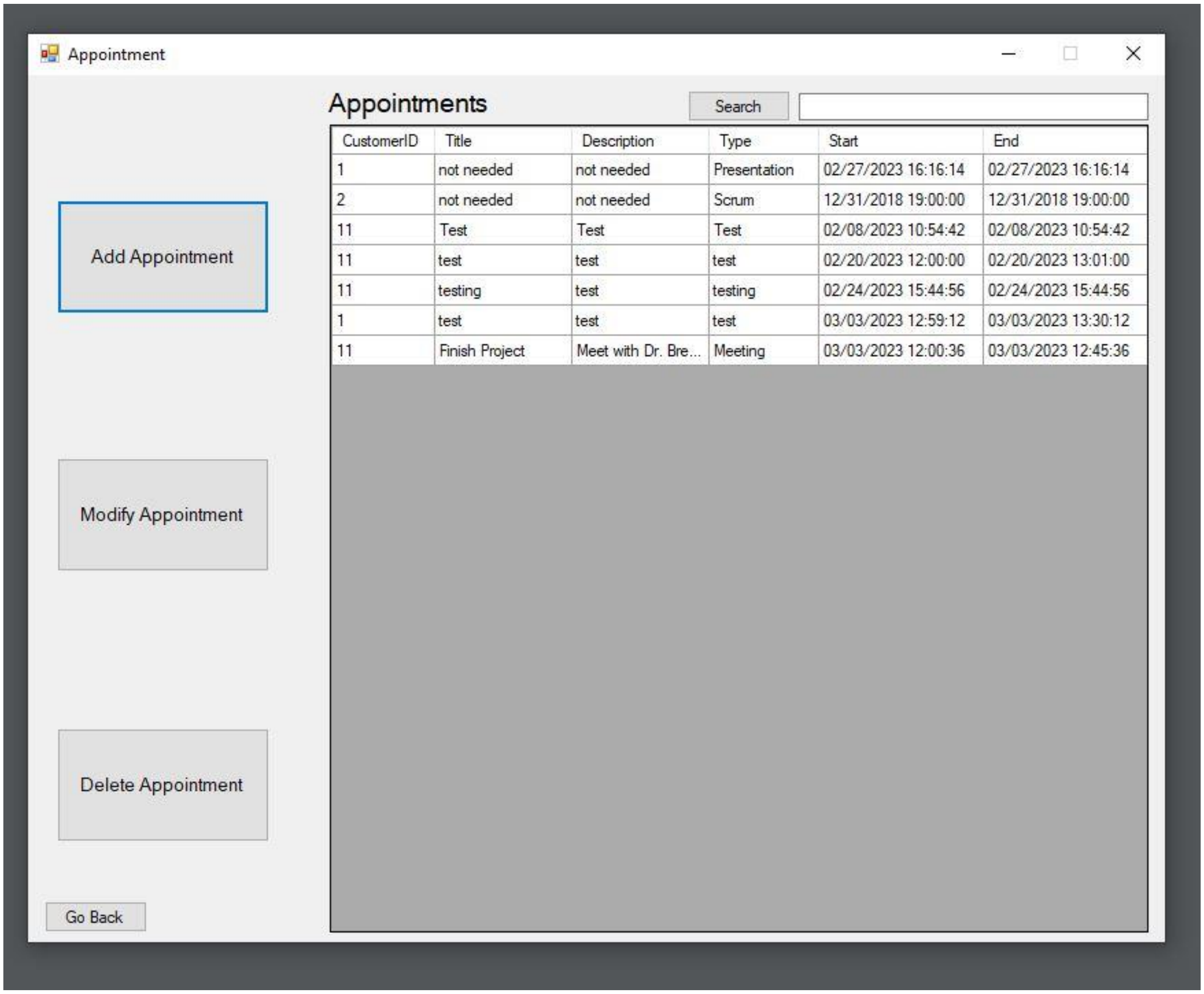
Add Customer navigates the user to the Add Customer form which has several fields that allow the user to enter customer information and save it. Modify Customer is like Add Customer, but it brings forward the Customer information that was selected.

High fidelity Modify Customer Form:



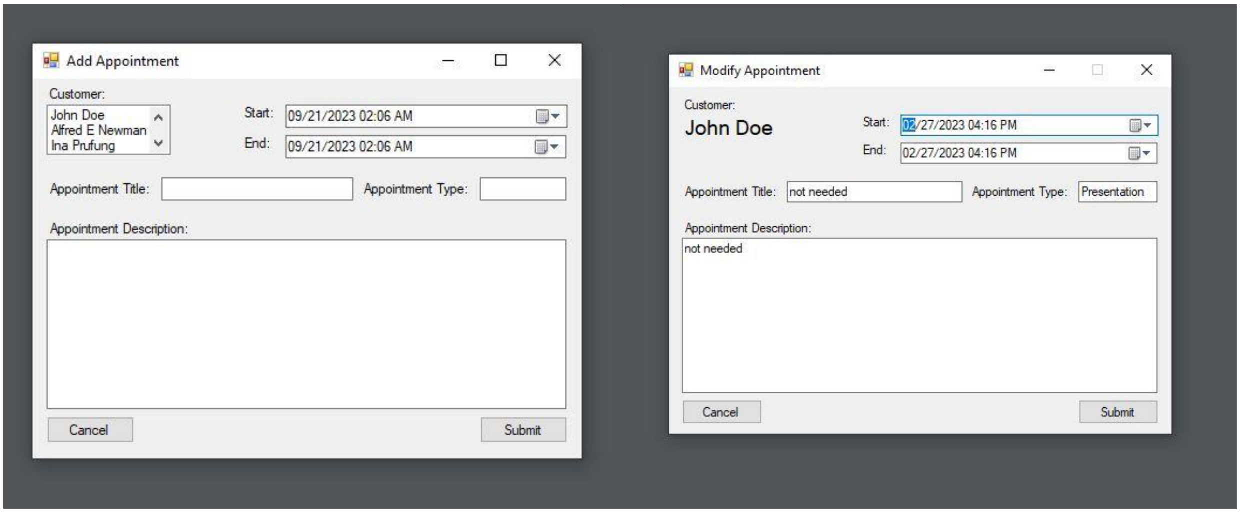
If the user clicks on the Appointment button it would navigate them to the Appointments page which is very similar to Customers, however, contains appointment information instead of customer information. The appointment page also has a search button and textbox to allow the user to search through the appointments.

High fidelity Appointments Form:



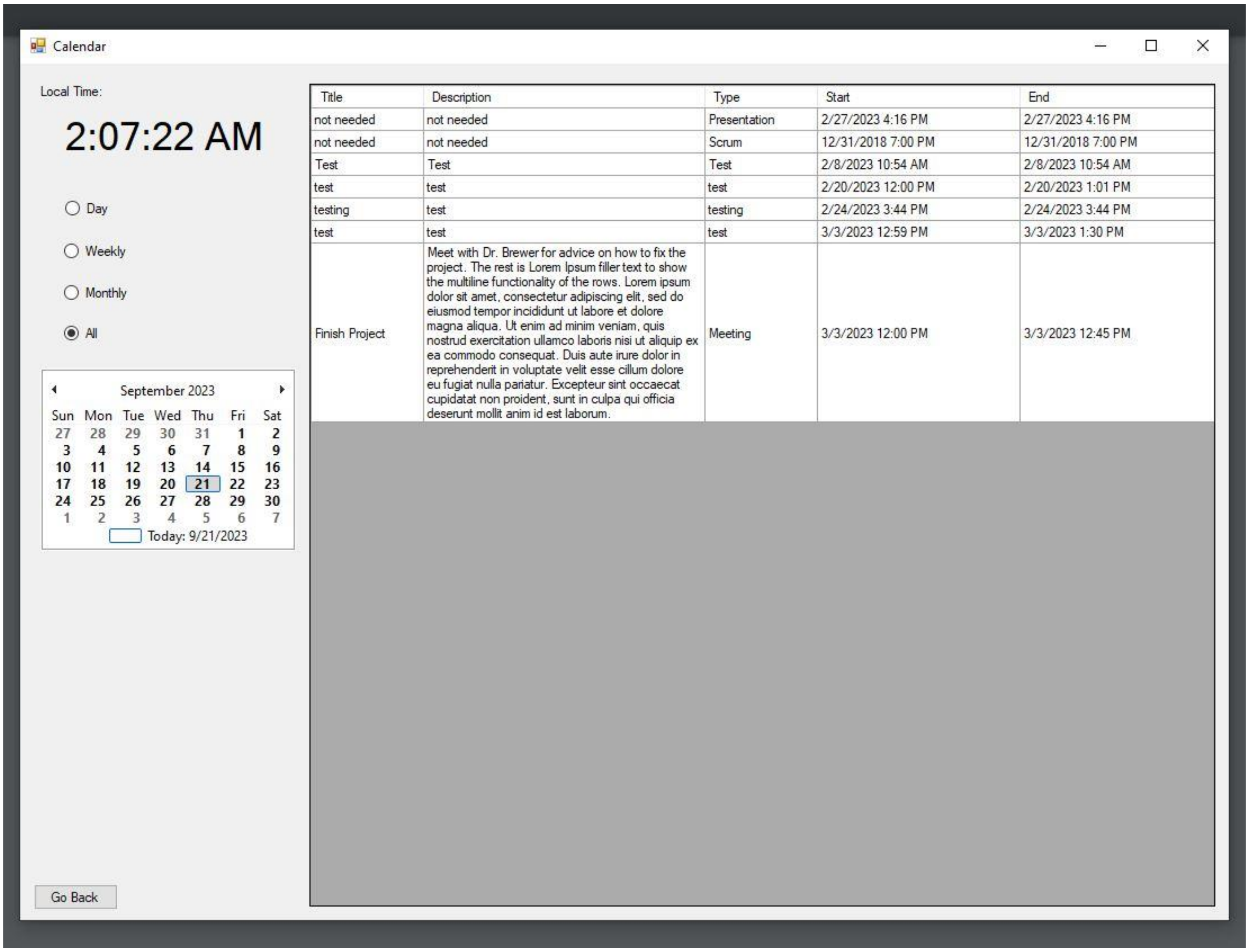
Add Appointment navigates the user to the Add Appointment form which has several fields that allow the user to enter Appointment information and save it. Modify Appointment is like Add Appointment, but it brings forward the Appointment information that was selected.

High fidelity Add Appointment and Mod Appointment Forms:



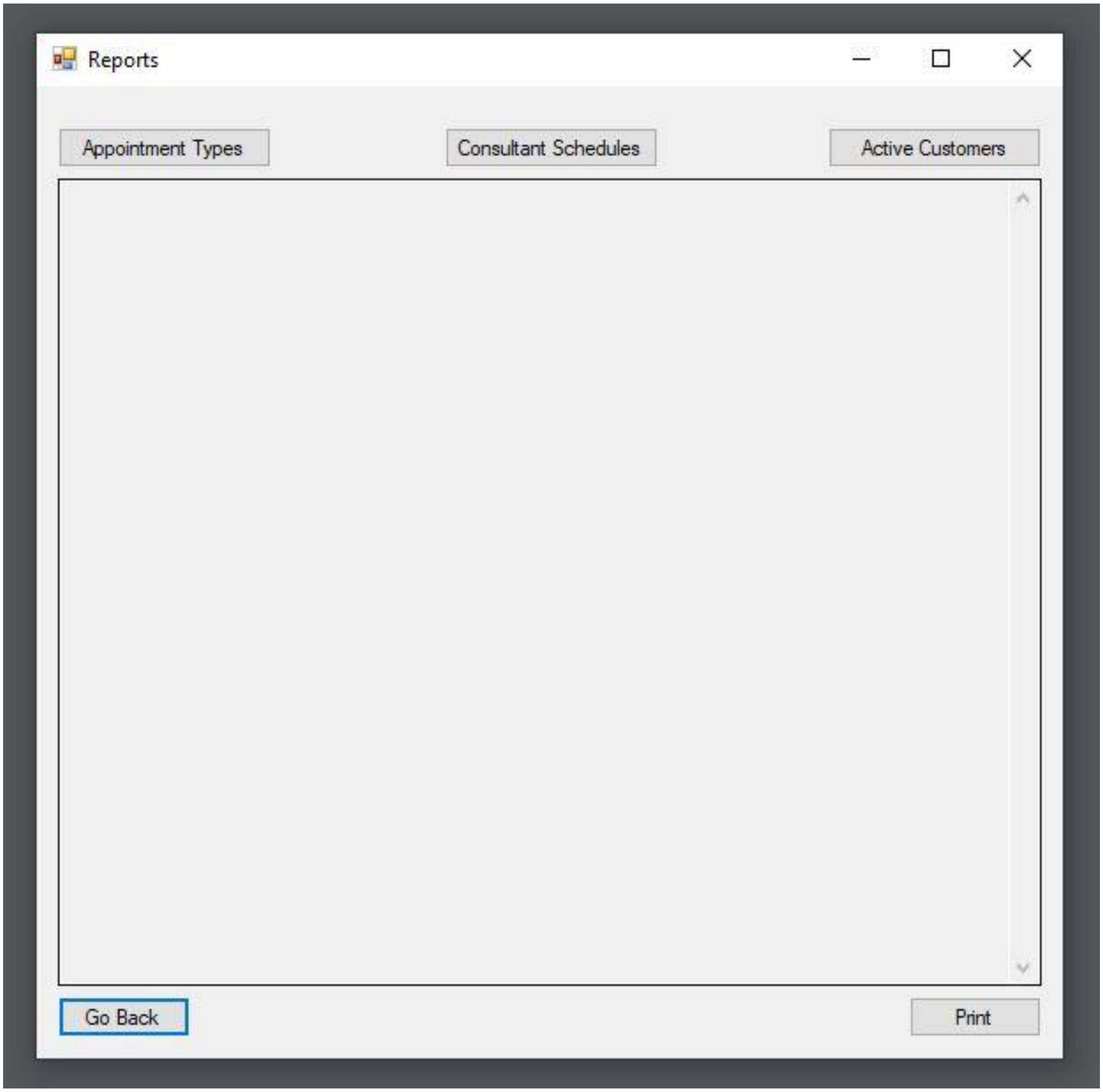
If the user clicks on the Calendar button it will navigate the user to the Calendar form page. This page displays the local time of the user and has four radio buttons that allow the user to select which appointments they want displayed based on the dates selected.

High fidelity Calendar Form:



The user can navigate to the Reports page only if they have Admin privileges. The report page has three buttons for the three different reports that can be generated and a print button that allows the user to print out the report.

High fidelity Reports Form:



Unit Test Plan

Introduction

Purpose

Manual testing was the primary testing method used for testing the application. The functionality and exception controls were tested through the UI. Each form for the application was considered a unit. Each unit was individually tested until all of them were finished. If a bug or error was found, the development team was notified to fix it and start the tests over again to make sure nothing was broken in the process. Automated tests were conducted on the CurrentUser class to make sure that it was working correctly.

Login Form

Test Case	Description	Test Steps	Actual Results	Expected Results	Pass/Fail
1	Login.	1. Enter a valid username. 2. Enter a valid password. 3. Click Login.	Login complete.	Login complete.	Pass
2	Login with incorrect username, password, or both.	1. Enter an invalid username and/or password. 2. Click Login.	MessageBox error notifying the user of the issue.	MessageBox error notifying the user of the issue.	Pass

Scheduler Form

Test Case	Description	Test Steps	Actual Results	Expected Results	Pass/Fail
3	Navigate to Customers Form.	1. Click Customer Button.	Opens Customer Form.	Opens Customer Form.	Pass
4	Navigate to Appointment Form.	1. Click Appointment Button.	Opens Appointment Form.	Opens Appointment Form.	Pass
5	Navigate to Calendar Form.	1. Click Calendar Button.	Opens Calendar Form.	Opens Calendar Form.	Pass
6	Navigate to Reports Form.	1. Click Reports Button.	Opens Reports Form. MessageBox alerts user to contact IT if they do not have the correct permissions to access.	Opens Reports Form. MessageBox alerts user to contact IT if they do not have the correct permissions to access.	Pass

Customer Form

Test Case	Description	Test Steps	Actual Results	Expected Results	Pass/Fail
7	Navigate back to Scheduler Form.	1. Click “Go Back” button.	Closes current form. Opens Scheduler Form.	Closes current form. Opens Scheduler Form.	Pass
8	Navigate to ModCustomer Form.	1. Select any customer. 2. Click “Modify Customer” button.	Open’s ModCustomer form with selected customer’s data.	Open’s ModCustomer form with selected customer’s data.	Pass
9	Navigate to AddCustomer Form	1. Click “Add Customer” button.	Opens AddCustomer Form.	Opens AddCustomer Form	Pass
10	Delete Customer Button	1. Select any customer. 2. Click “Delete Customer” button.	User is prompted to confirm the delete and deletes the customer record if confirmed.	User is prompted to confirm the delete and deletes the customer record if confirmed.	Pass

Add Customer Form

Test Case	Description	Test Steps	Actual Results	Expected Results	Pass/Fail
11	Create new customer.	1. Enter valid data in all fields. 2. Click “Submit” button.	New Customer record added.	New Customer record added.	Pass
12	Check for blank fields.	1. Enter data in all fields except the first field. 2. Click “Submit” 3. Repeat for the next field until all are complete.	Exception handling error. MessageBox appears alerting user of an invalid field.	Exception handling error. MessageBox appears alerting user of an invalid field.	Pass
13	Clear all fields on form.	1. Click “Reset” button.	All fields have their text removed.	All fields have their text removed.	Pass
14	Navigate back to Customers form.	1. Click “Go Back” button.	Closes current form. Opens Customers Form.	Closes current form. Opens Customers Form.	Pass

Modify Customer Form

Test Case	Description	Test Steps	Actual Results	Expected Results	Pass/Fail
15	Modify current selected customer.	1. Change any field with new data.	Customer is modified successfully.	Customer is modified successfully.	Pass
16	Check for blank fields.	1. Enter data in all fields except the first field. 2. Click "Submit" 3. Repeat for the next field until all are complete.	Exception handling error. MessageBox appears alerting user of an invalid field.	Exception handling error. MessageBox appears alerting user of an invalid field.	Pass
17	Clear all fields on form.	1. Click "Reset" button.	All fields have their text removed.	All fields have their text removed.	Pass
18	Navigate back to Customer From.	1. Click "Go Back" button.	Closes current form. Opens Customers Form.	Closes current form. Opens Customers Form.	Pass

Appointments Form

Test Case	Description	Test Steps	Actual Results	Expected Results	Pass/Fail
19	Navigate back to Scheduler Form.	1. Click “Go Back” button.	Closes current form. Opens Scheduler Form.	Closes current form. Opens Scheduler Form.	Pass
20	Navigate to ModAppointment Form.	1. Select any customer. 2. Click “Modify Appointment” button.	Opens ModAppointment form with selected appointment’s data.	Opens ModAppointment form with selected appointment’s data.	Pass
21	Navigate to AddAppointment Form.	1. Click “Add Appointment” button.	Opens AddAppointment Form.	Opens AddAppointment Form	Pass
22	Delete Appointment Button.	1. Select any appointment. 2. Click “Delete Customer” button.	User is prompted to confirm the delete and deletes the appointment record if confirmed.	User is prompted to confirm the delete and deletes the appointment record if confirmed.	Pass
23	Search feature.	1. Enter customer’s name or id number into the search field. 2. Click “Search Button”.	Records with matching search characters will appear.	Records with matching search characters will appear.	Pass

Add Appointment

Test Case	Description	Test Steps	Actual Results	Expected Results	Pass/Fail
24	Create new appointment.	1. Enter valid data in all fields. 2. Click “Submit” button.	New appointment record added.	New appointment record added.	Pass
25	Check for blank fields.	1. Enter data in all fields except the first field. 2. Click “Submit” 3. Repeat for the next field until all are complete.	Exception handling error. MessageBox appears alerting user of an invalid field.	Exception handling error. MessageBox appears alerting user of an invalid field.	Pass
26	Clear all fields on form.	1. Click “Reset” button.	All fields have their text removed.	All fields have their text removed.	Pass
27	Navigate back to Appointments form.	1. Click “Go Back” button.	Closes current form. Opens Appointments Form.	Closes current form. Opens Appointments Form.	Pass

Mod Appointment

Test Case	Description	Test Steps	Actual Results	Expected Results	Pass/Fail
28	Modify current selected appointment.	1. Change any field with new data.	Appointment is modified successfully.	Appointment is modified successfully.	Pass
29	Check for blank fields.	1. Enter data in all fields except the first field. 2. Click “Submit” 3. Repeat for the next field until all are complete.	Exception handling error. MessageBox appears alerting user of an invalid field.	Exception handling error. MessageBox appears alerting user of an invalid field.	Pass
30	Clear all fields on form.	1. Click “Reset” button.	All fields have their text removed.	All fields have their text removed.	Pass
31	Navigate back to Appointment From.	1. Click “Go Back” button.	Closes current form. Opens Appointments Form.	Closes current form. Opens Appointments Form.	Pass

Reports Form (Can only access as an AdminUser)

Test Case	Description	Test Steps	Actual Results	Expected Results	Pass/Fail
32	Displays Appointment Type report.	1. Click “Appointment Types” button.	Generates Appointment Type report with a timestamp of when it was generated.	Generates Appointment Type report with a timestamp of when it was generated.	Pass
33	Displays Consultant Schedules Report	1. Click “Consultant Schedules” button.	Generates Consultant Schedules report with a timestamp of when it was generated.	Generates Consultant Schedules report with a timestamp of when it was generated.	Pass
34	Displays Active Customers Report	1. Click “Active Customers” button.	Generates Active Customers report with a timestamp of when it was generated.	Generates Active Customers report with a timestamp of when it was generated.	Pass
35	Navigates back to Scheduler Form.	1. Click “Go Back” button.	Current Form closes and a Scheduler form appears.	Current Form closes and a Scheduler form appears.	Pass
36	Prints Report.	1. Click “Print” button.	Prompt to select printer settings appear. Prints currently displayed report.	Prompt to select printer settings appear. Prints currently displayed report.	Pass

Login Form

Test Case	Description	Test Steps	Actual Results	Expected Results	Pass/Fail
1	Login.	4. Enter a valid username. 5. Enter a valid password. 6. Click Login.	Login complete.	Login complete.	Pass
2	Login with incorrect username, password, or both.	3. Enter an invalid username and/or password. 4. Click Login.	MessageBox error notifying the user of the issue.	MessageBox error notifying the user of the issue.	Pass

Overview

The ability to accurately schedule appointments represents one of the most significant benefits in aiding customer growth and revenue increase. As a result, it becomes imperative to validate that appointments do not overlap and that users receive appropriate notifications. Maintaining accurate scheduling and ensuring the integrity of appointment data are both critical aspects of the application's testing. To validate the data displayed in the user interface, comprehensive tests were conducted, rigorous validation checks were performed to ensure the accuracy and correct display of time differences when transitioning from local to UTC times, with any inconsistencies promptly addressed. Each element within the application, encompassing buttons, radio buttons, combo boxes, date pickers, and input fields, underwent thorough testing to ensure flawless functionality and data manipulation. This testing played a large role in confirming that the application functions as intended.

Test Plan

Items

1. A Testing environment.
2. Correct Login details.
3. Access to the database with the correct schema.
4. Retesting of any failed tests documenting what went wrong.
5. Testing is complete once all unit tests pass.

Features

The tests listed above are mostly tested through the user interface of the application. Validation is checked by confirming that all UI elements have error control handling to prevent invalid data being entered.

Deliverables

All results will be documented in the plan for unit testing and delivered upon completion.

Tasks

1. Complete unit tests in order.
2. Uncover any bugs, document them, and assign them to the correct department to resolve.
3. Repeat until all unit tests pass.
4. Testing complete once step three is finished.

Needs

1. Access to the testing environment.
2. Access to the MySQL database to confirm data validation.
3. Visual Studio 2017 installed on a Windows 10 machine.
4. MSTest Framework

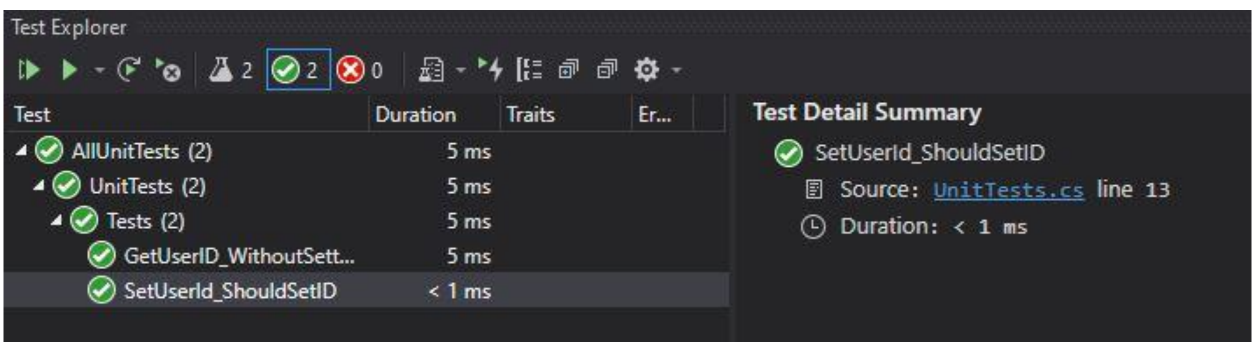
Pass/Fail Criteria

When a test fails, it's essential to create a bug report. A bug report is a document that provides crucial information about the issue, including its title, description, steps to reproduce, where it was found (branch/environment), the version of the software being tested, the name of the developer responsible for fixing it, and the name of the person who discovered the bug.

In the context of the test plan, well-documented unit tests are a key component. These tests comprehensively outline the inputs used, the expected results, and the actual test outcomes. If the actual results align with the expected ones, the test is considered successful. However, any inconsistencies or failures must be carefully documented, and the necessary action is to assign the bug to a developer for resolution.

Results

Unit testing for the application involved manual testing. Following the successful completion of all unit tests, a comprehensive regression test was conducted on the entire application to ensure its quality. Remarkably, both the unit tests and regression tests achieved a perfect 100% pass rate, marking the successful conclusion of the testing phase. Two automated unit tests were created to confirm that the CurrentUser class is working as expected. Please see the below code and test results.



```
using Microsoft.VisualStudio.TestTools.UnitTesting;
using System;
using Appointment_Scheduler_Felix_Berinde;


namespace UnitTests
{
    [TestClass]
    public class Tests
    {

        [TestMethod]
        public void SetUserId_ShouldSetID()
        {
            //Arrange
            int expectedID = 1234;
            //Act
            CurrentUser.UserId = expectedID;
            //Assert
            Assert.AreEqual(expectedID, CurrentUser.UserId);
        }

        [TestMethod]
        public void GetUserID_WithoutSetting()
        {
            int userID = CurrentUser.UserId;

            Assert.AreEqual(0, userID);
        }

    }
}
```

C4. Source Code

The source code will be provided in a separate zip file than this document. Please look for the folder once the source code is ready to be released to production.

C5. Link to Live Version

The live version will be hosted on a Virtual machine for demonstration purposes. A link to the virtual machine will be provided once the application is approaching completion to start testing.

Introduction

To enhance the user's understanding, screenshots are included as visual aids. The guide covers a range of actions, including logging in, accessing the customer's table, searching for customers, creating new customer profiles, updating customer information, deleting customers accessing the appointments table, creating new appointments, modifying existing appointments, deleting appointments, and generating reports.

Installation and Using the Application

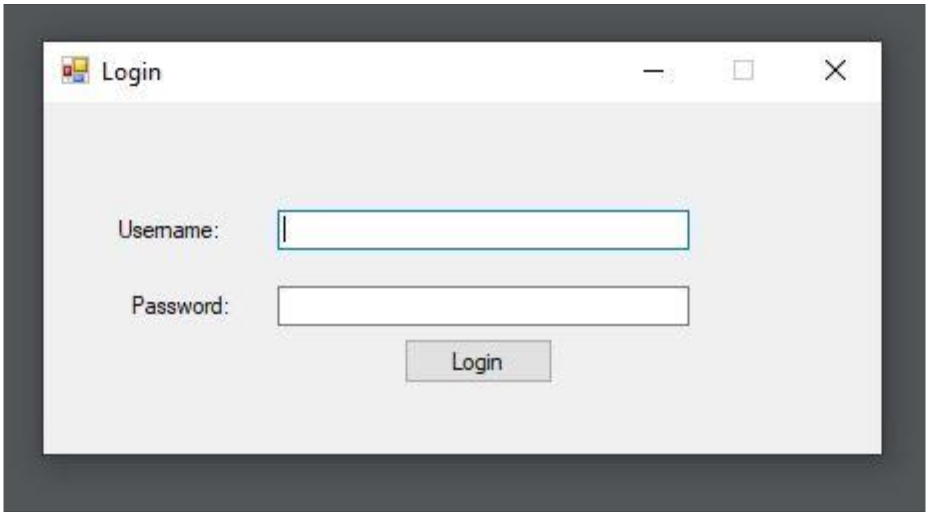
To install the application the user should open the folder labeled "Cutting_Edge_Scheduler" and double click on the "setup.exe" file. Click on the "Install" button and wait for the application to finish installation. Once installation is complete, the application should open automatically to the login screen. The same file can be double clicked to open the application in the future.

User Guide

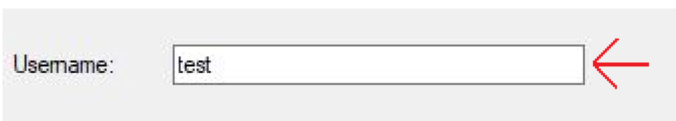
Logging into the Application

To login a user account is required. Login credentials can be obtained by asking an administrator to request for an account to be created. Accounts can only be created by a Database Administrator or someone with access to the database.

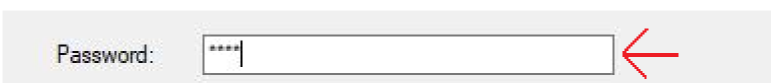
1. Run the application as mentioned above and a login screen will appear.



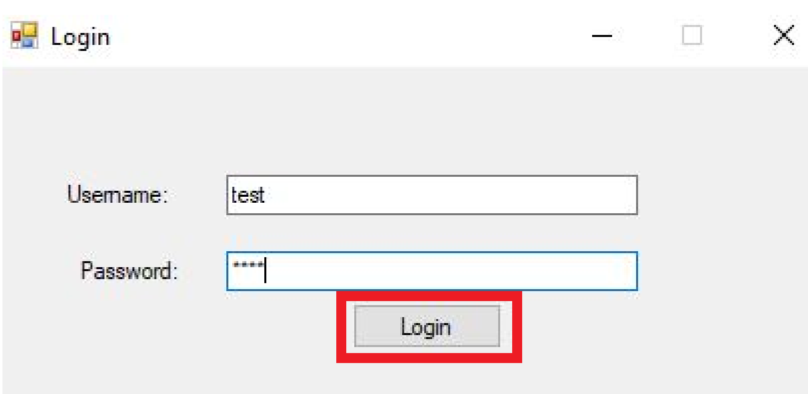
2. Enter a username.



3. Enter a password. (test)



4. Left Click the Login button.



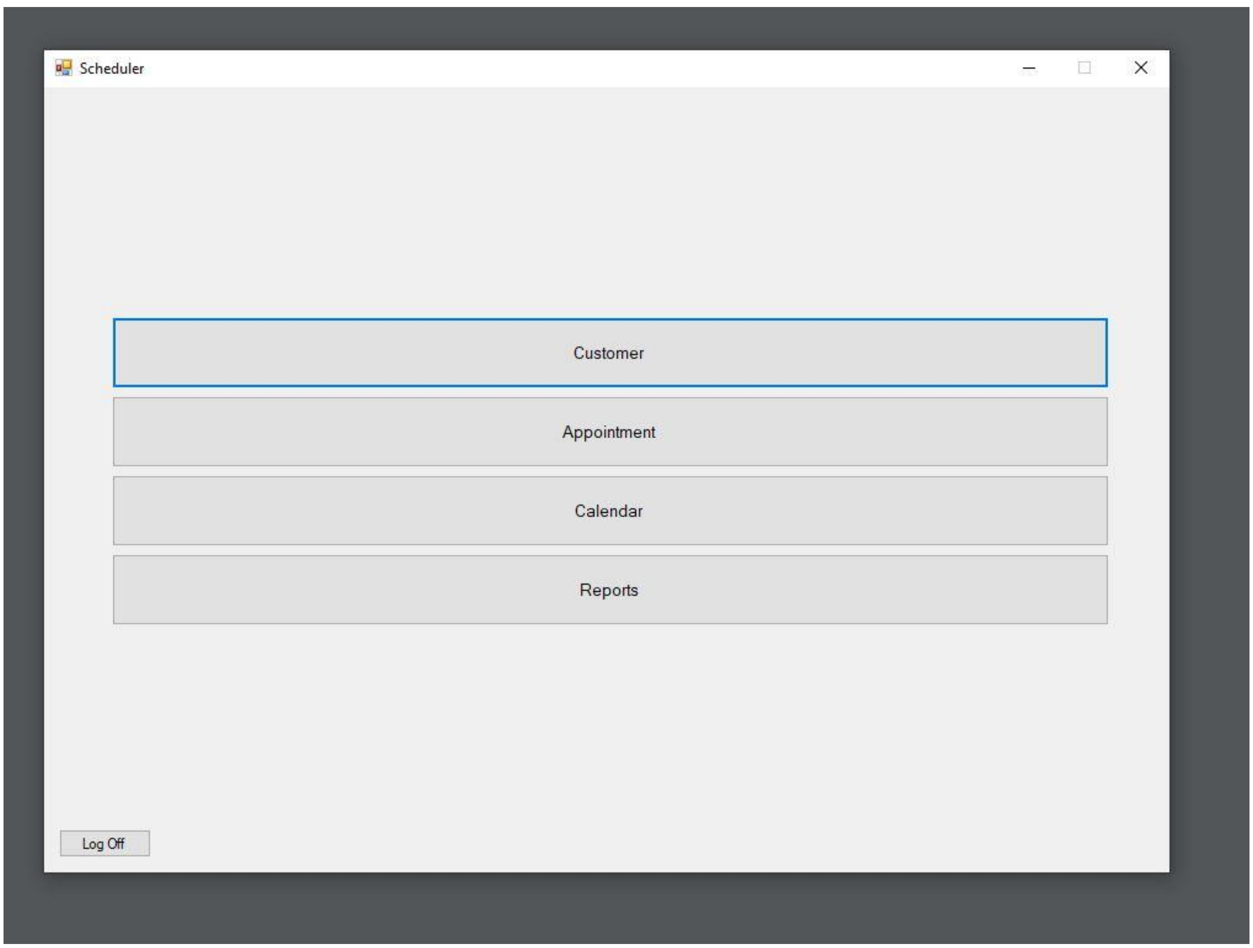
5. If Login is successful, the Login Form will close and the Scheduler Form will open.

Scheduler Form

1. The Scheduler Form has 5 different buttons. The Customer, Appointment, Calendar, and Reports buttons all navigate to their respective forms while leaving the Scheduler form open in the background.

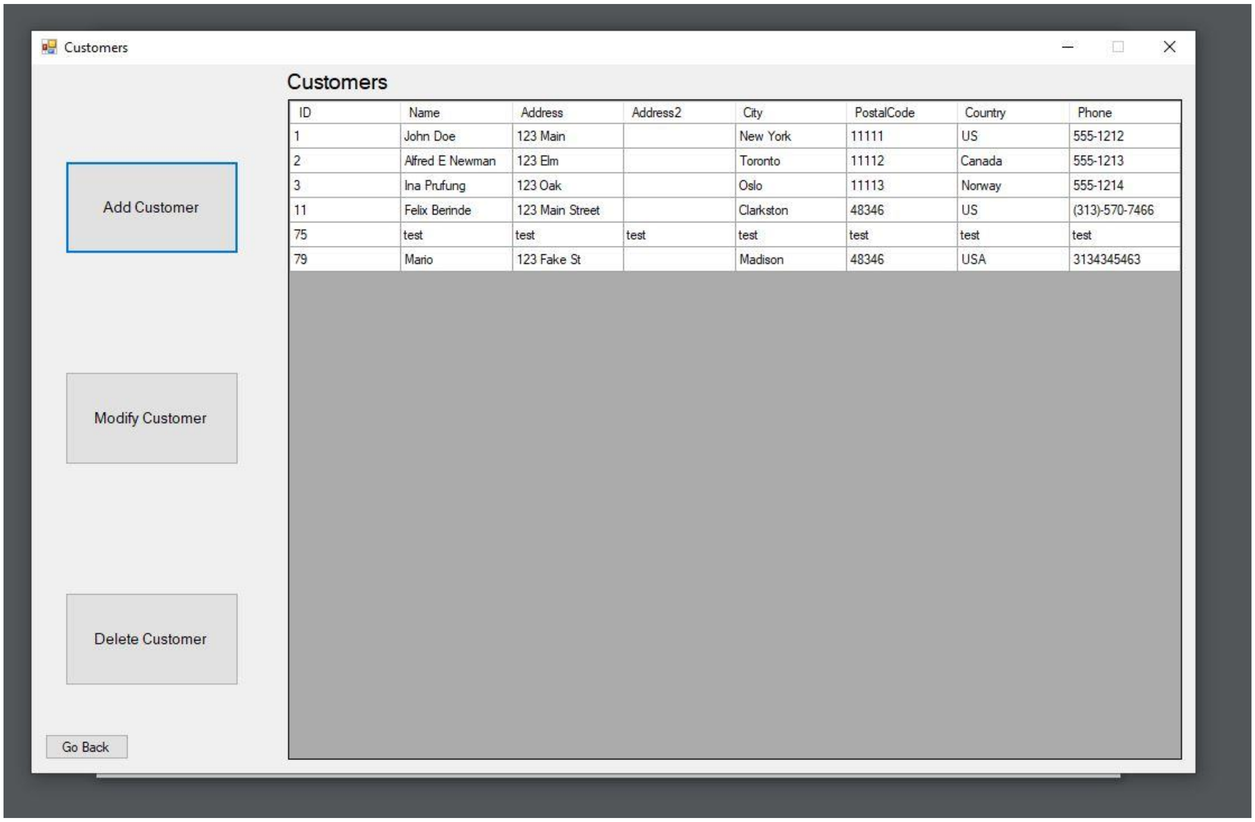
Log Off Button

1. Clicking the “Log off” button with close the scheduler form and application.



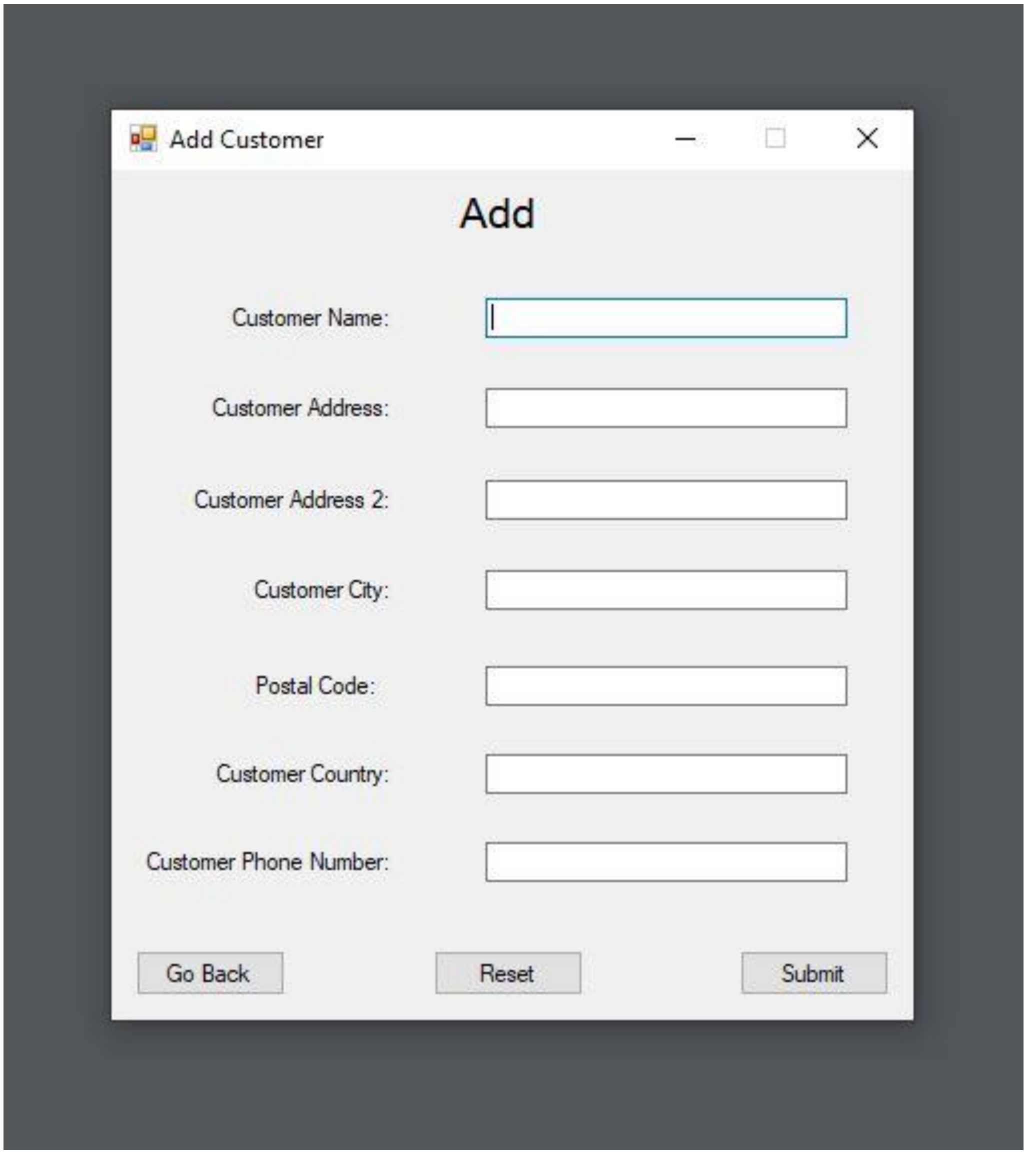
Customers Form

1. The Customers Form will display all customers in the table. From this form there are four buttons and options.



Add Customer Form (Adding a customer)

1. Clicking “Add Customer” opens the AddCustomer Form.



2. When the AddCustomer Form opens do the following in order:
    a. Fill in all fields with valid customer data.
    b. Click Submit.

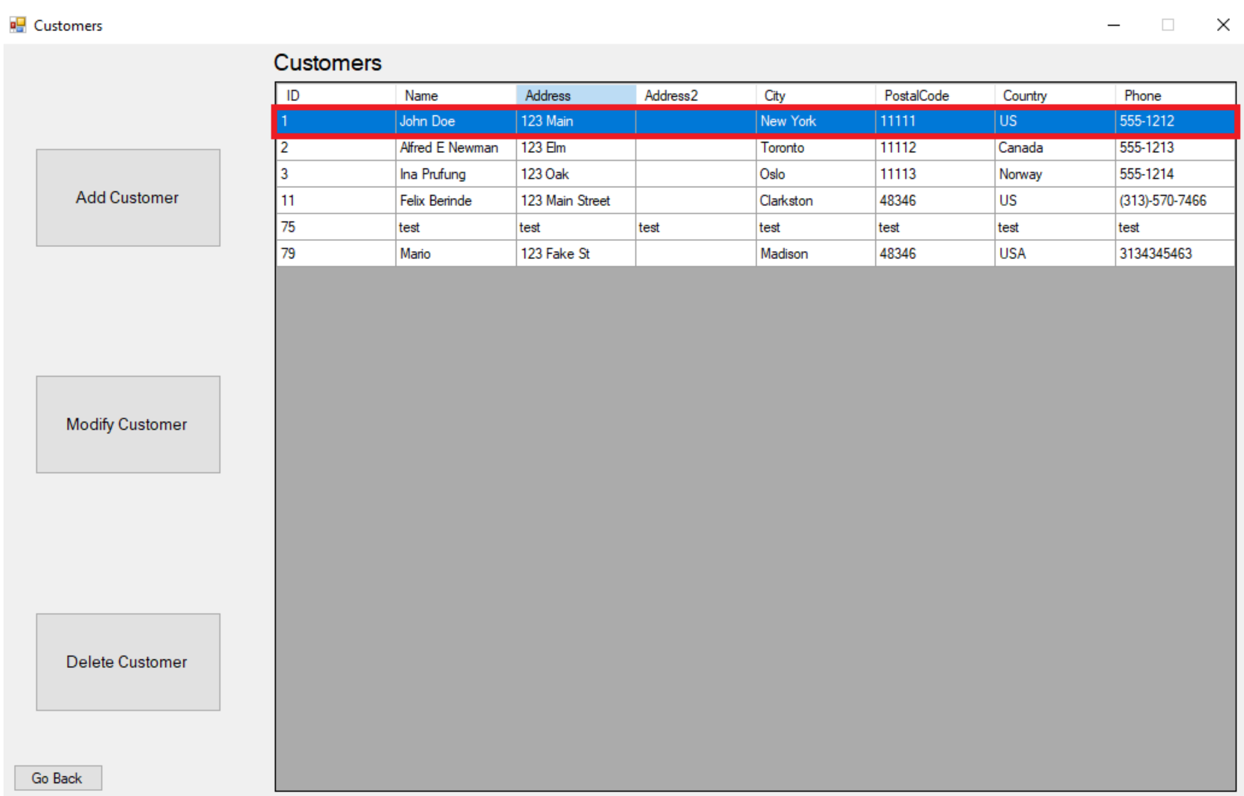
c. AddCustomer Form closes and Customers Form opens with a new data entry.

3. Clicking the Reset Button will clear all the fields from any text.

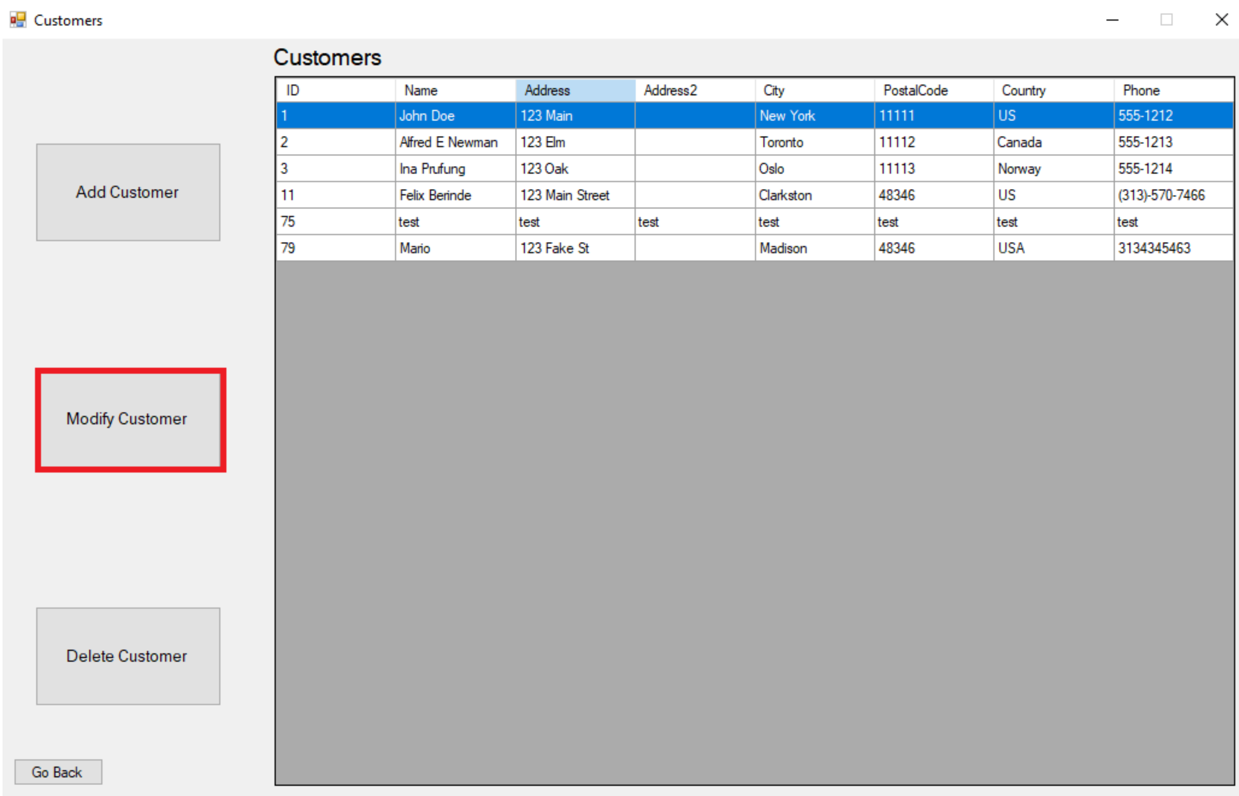
4. Clicking the Go Back button will take you back to the Customers Form with no new data entry.

Modify Customer Form (Modify a customer)

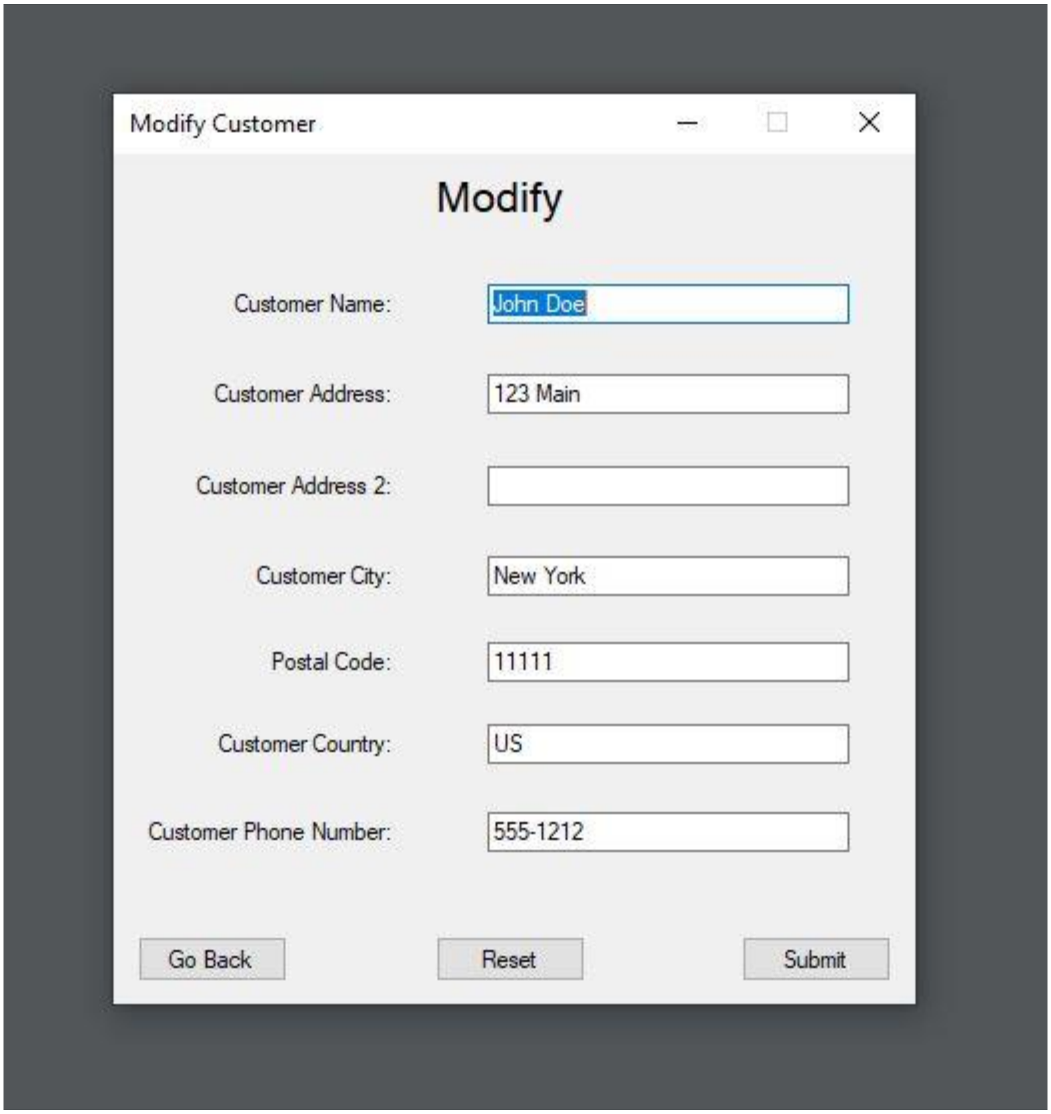
1. Click on the Customer in the table to select which customer is the one being modified.



2. Click the Modify Customer button.



3. Update any fields with any valid data.



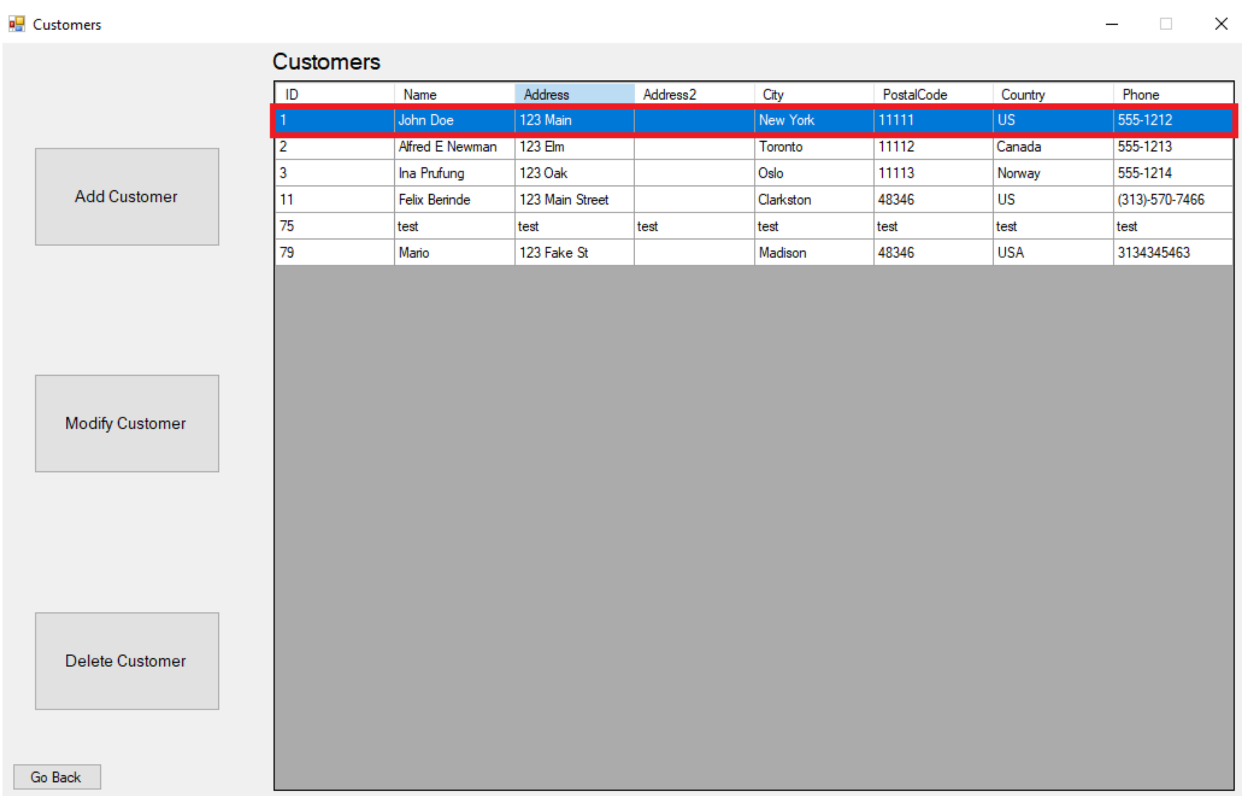
4. Click Submit to save any changes.

5. Clicking the Reset Button will clear all the fields from any text.

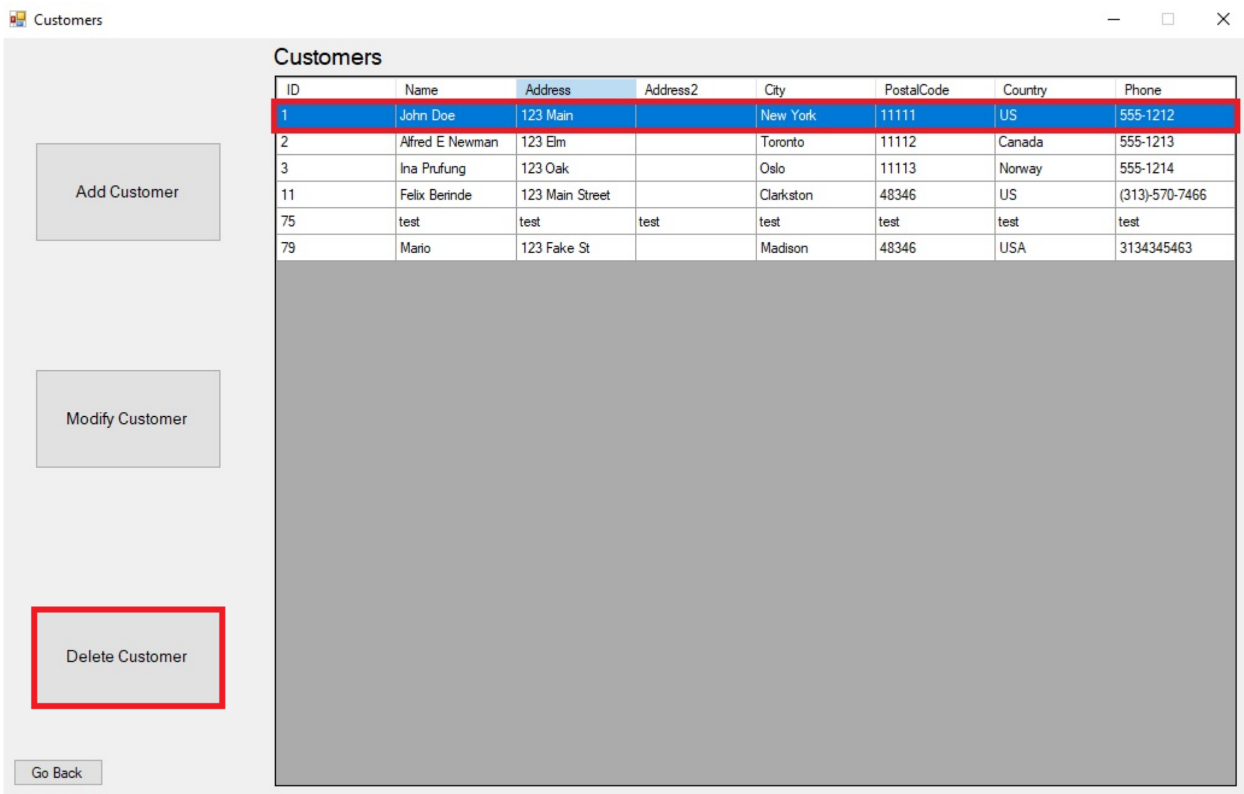
6. Clicking the Go Back button will take you back to the Customers Form with no new data entry.

Delete Customer

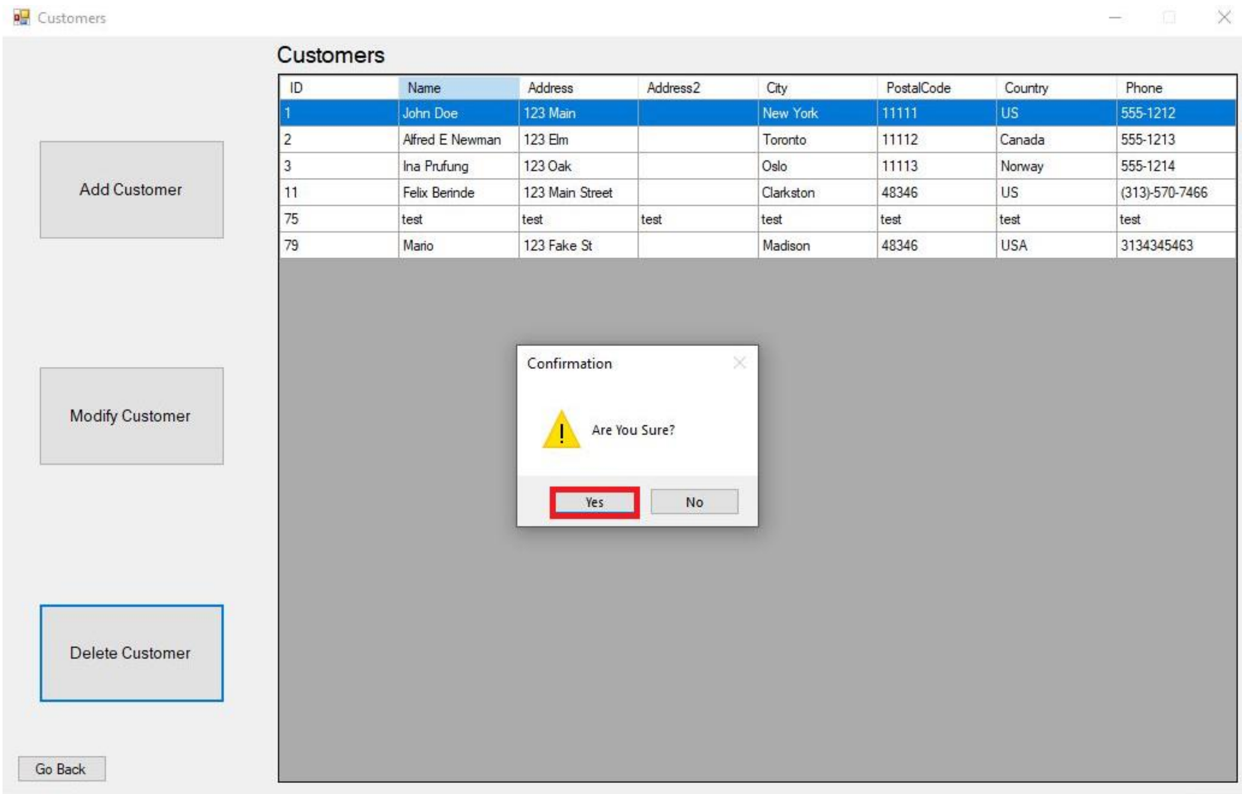
1. Click on the Customer in the table to select which customer is the one being modified.



2. Click on Delete Customer.



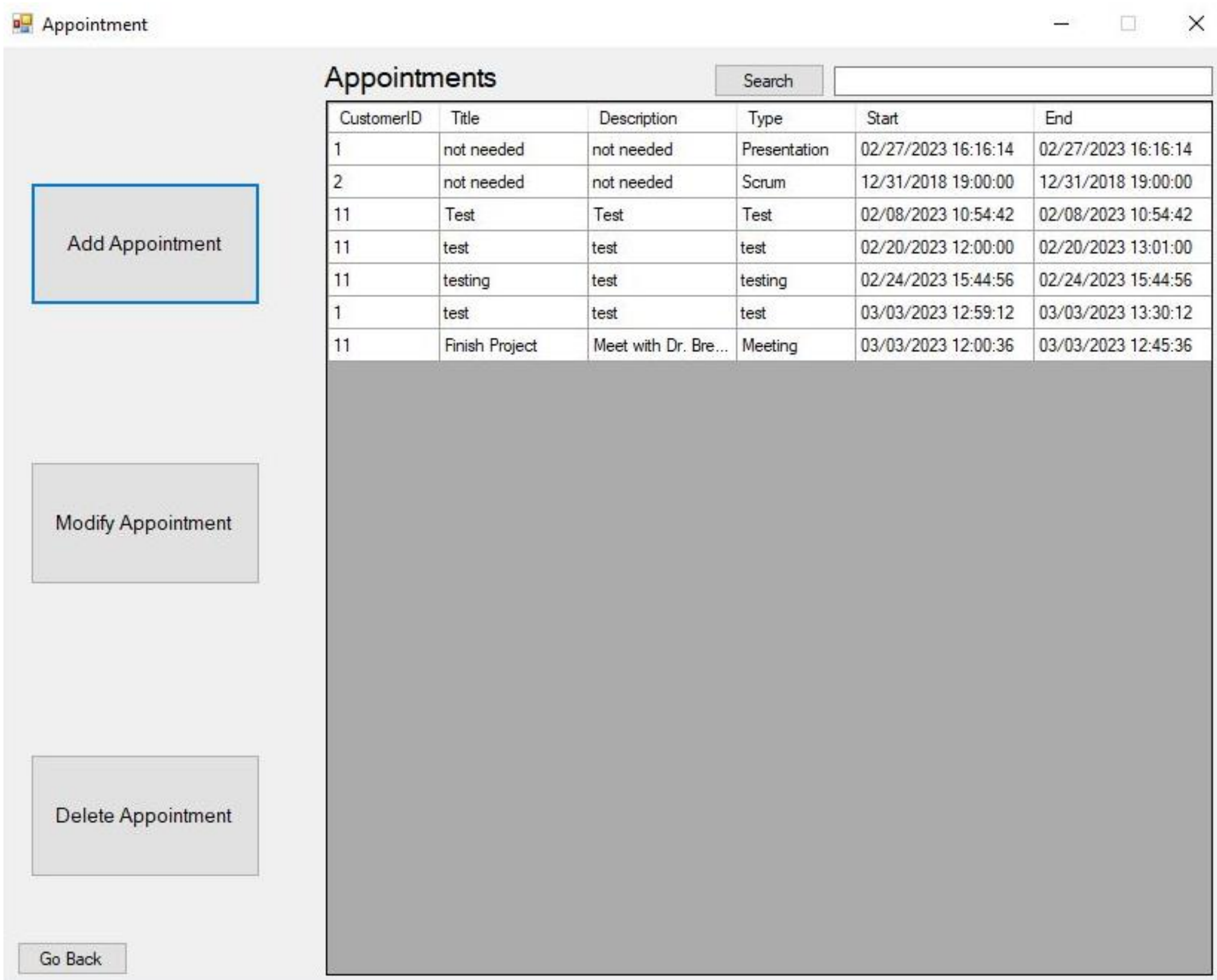
3. Click on yes to confirm the deletion of that customer.



4. If no is selected the customer will not be deleted from the table or database.

Appointment Form

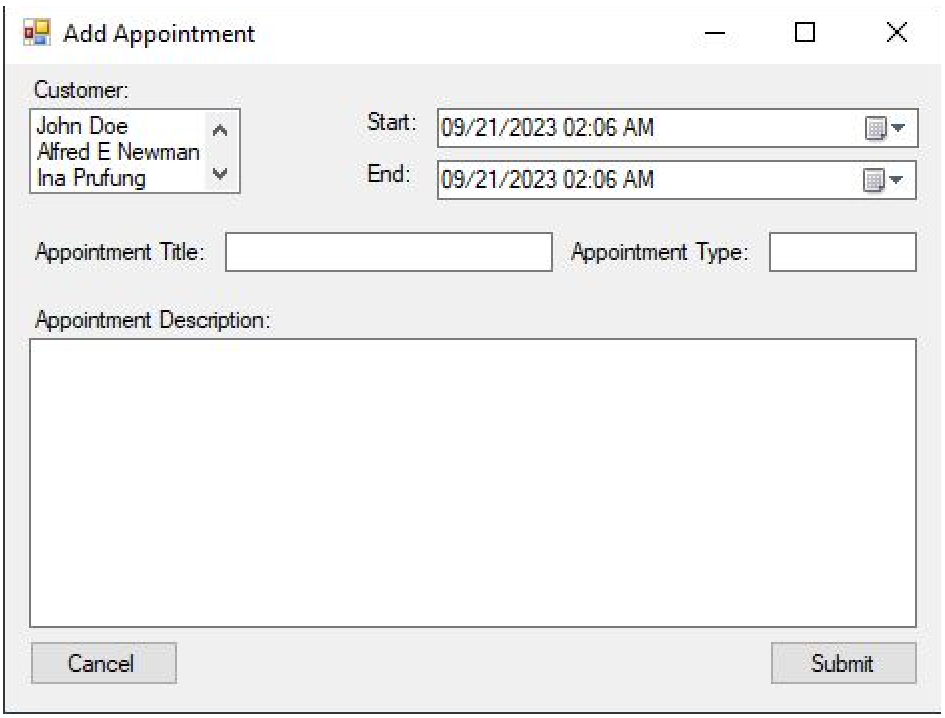
1. The Appointment Form displays all the appointments in a table. There are five buttons and options on this form.



CustomerID	Title	Description	Type	Start	End
1	not needed	not needed	Presentation	02/27/2023 16:16:14	02/27/2023 16:16:14
2	not needed	not needed	Scrum	12/31/2018 19:00:00	12/31/2018 19:00:00
11	Test	Test	Test	02/08/2023 10:54:42	02/08/2023 10:54:42
11	test	test	test	02/20/2023 12:00:00	02/20/2023 13:01:00
11	testing	test	testing	02/24/2023 15:44:56	02/24/2023 15:44:56
1	test	test	test	03/03/2023 12:59:12	03/03/2023 13:30:12
11	Finish Project	Meet with Dr. Bre...	Meeting	03/03/2023 12:00:36	03/03/2023 12:45:36

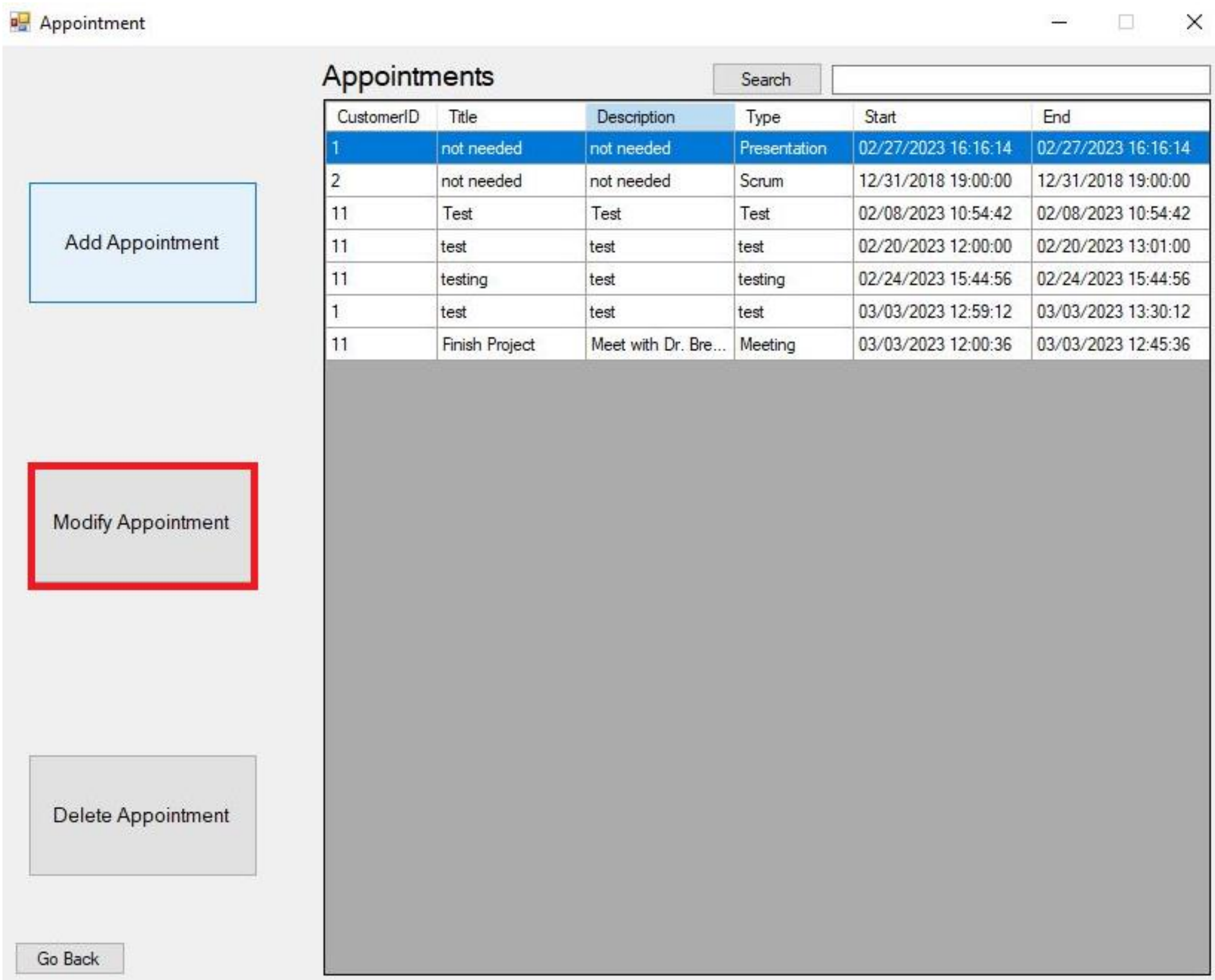
Add Appointment Form (Add an Appointment)

1. Clicking "Add Appointment" opens the AddAppointment Form.
2. When the AddAppointment Form opens do the following in order:
   a. Fill in all fields with valid Appointment data.
   b. Click Submit.
   c. AddAppointment Form closes and Appointments Form opens with a new data entry.
3. Clicking the Go Back button will take you back to the Appointments Form with no new data entry.



Modify Appointment Form (Modify an appointment)

1. Click on the Appointment in the table to select which Appointment is the one being modified.



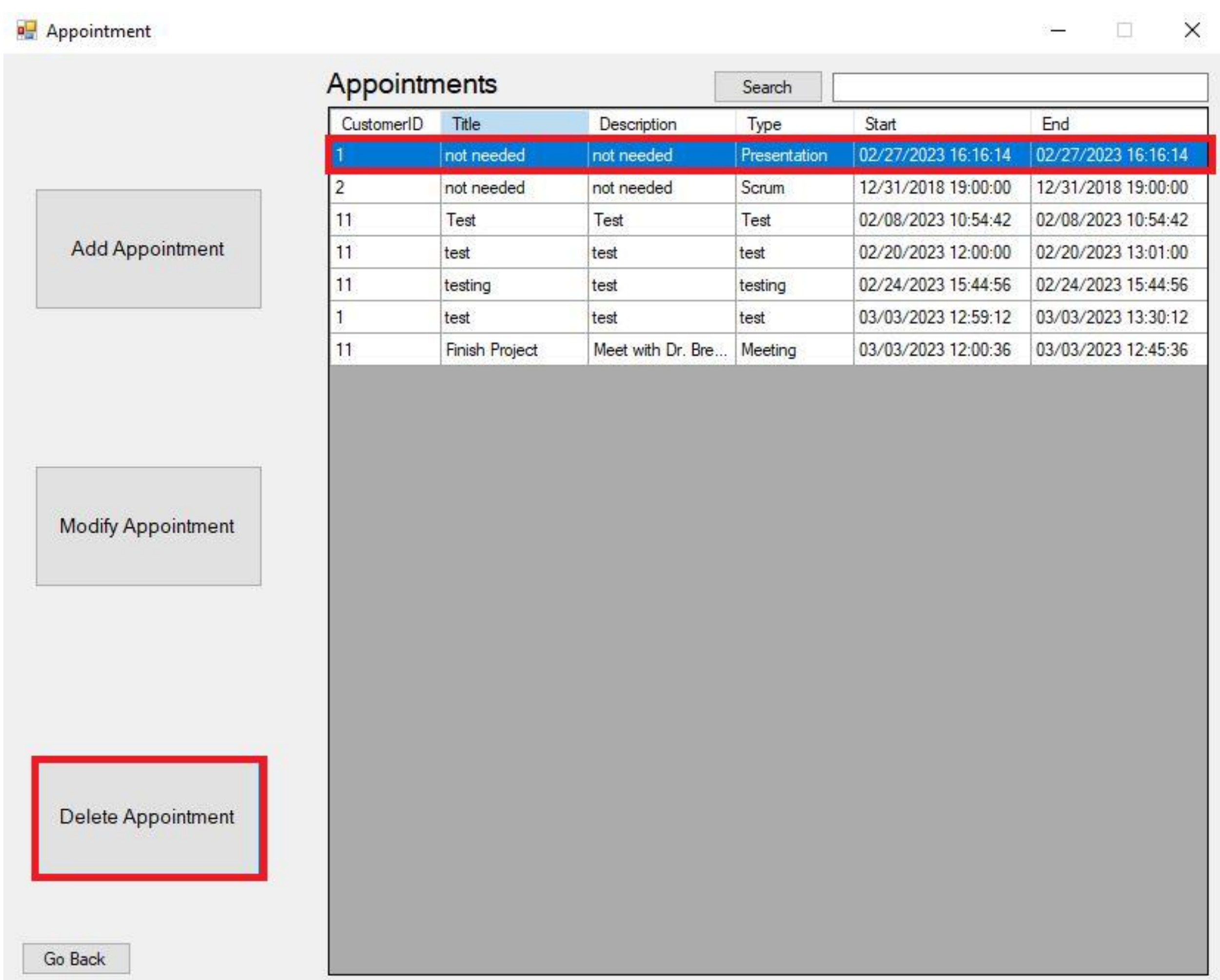
2. Update any fields or drop downs with valid data.
3. Click Submit to save any changes.

4. Clicking the Reset button will clear all the fields from any text.

5. Clicking the Go Back button will take you back to the Customers Form with no new data entry.

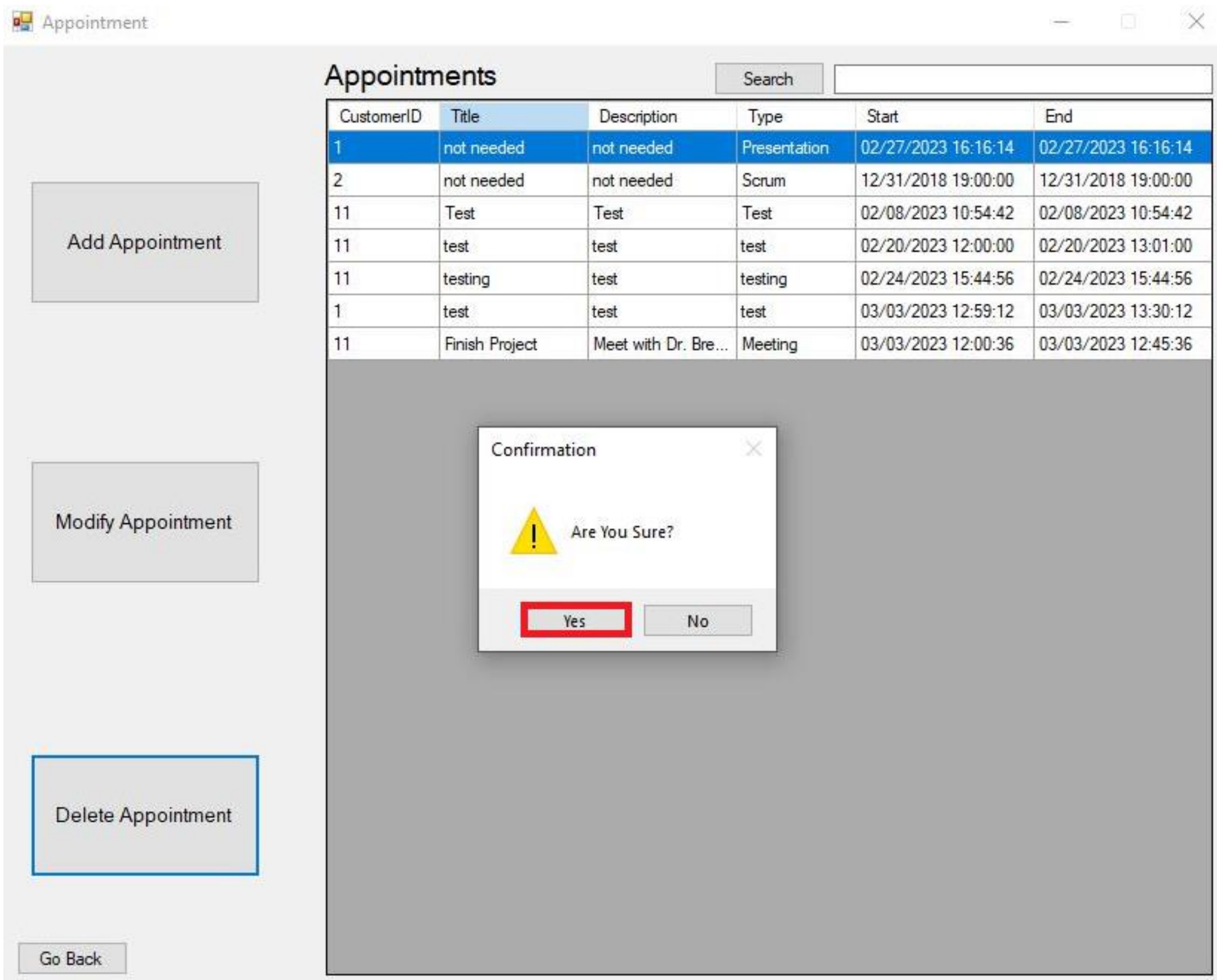
Delete Appointment

1. Select the Appointment in the table that is going to be deleted.



2. Click on the Delete Appointment button.

3. Click on yes to confirm deletion of that appointment.

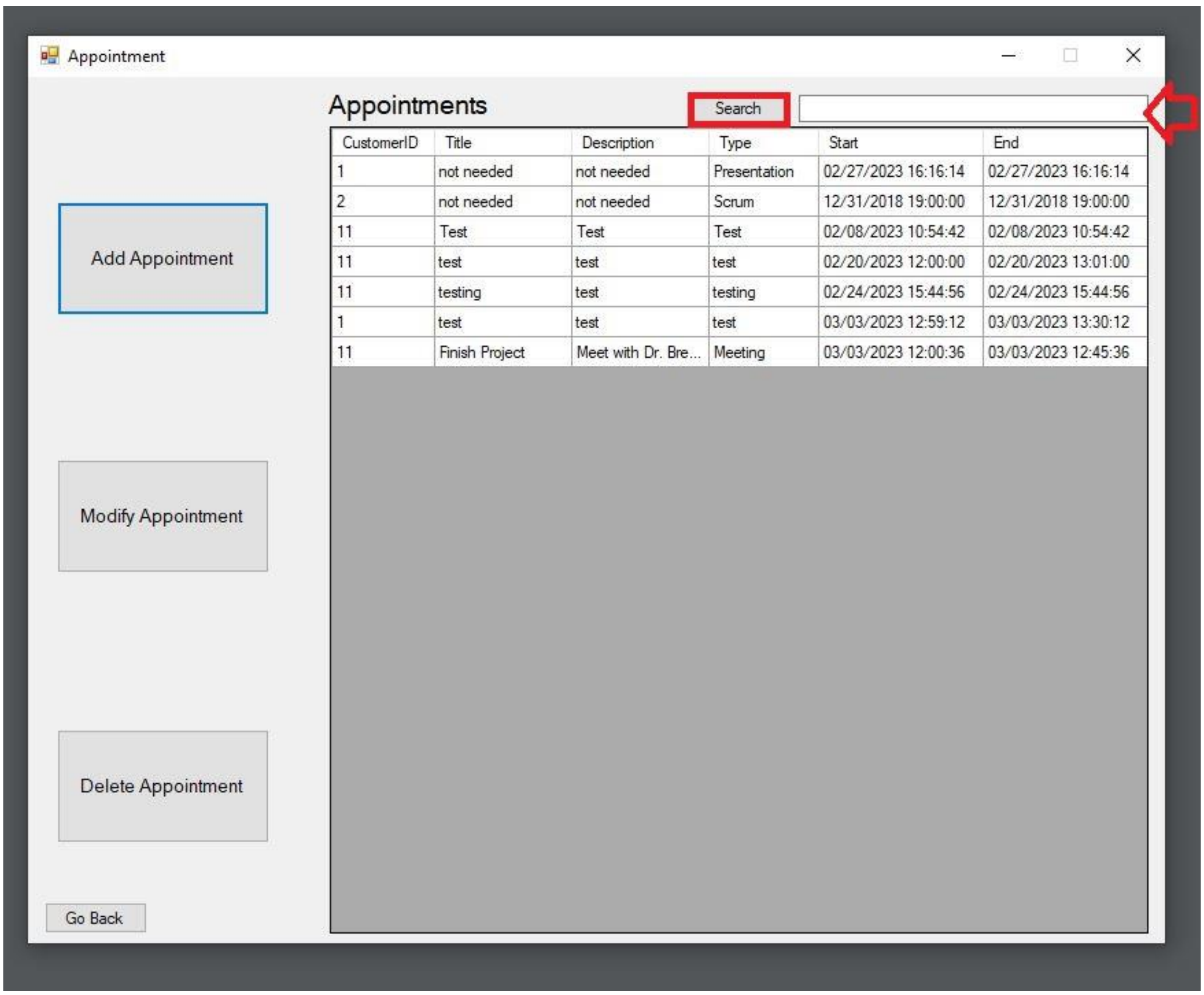


4. If no is selected the Appointment will not be deleted from the table and database.

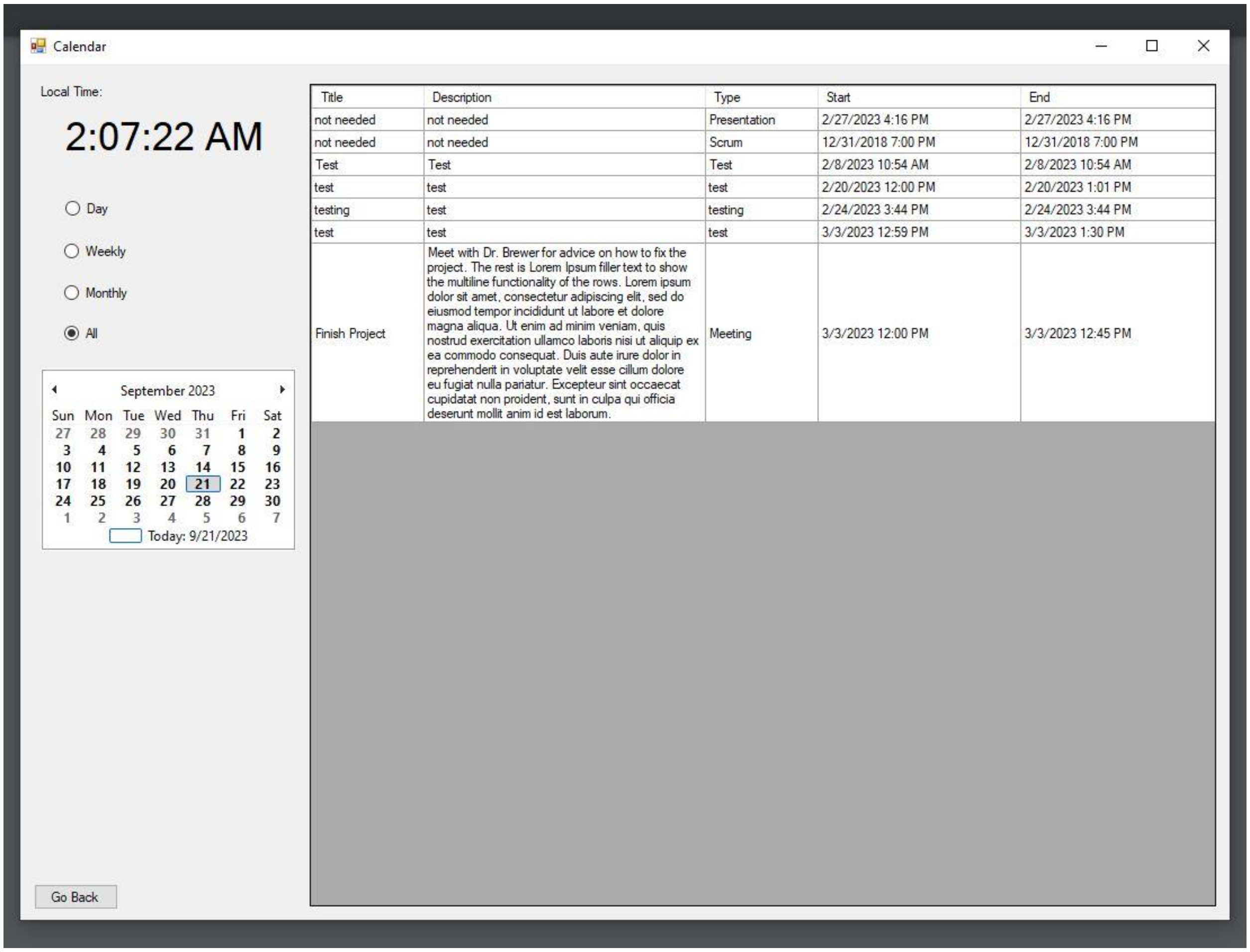
5. Clicking Go Back on the Appointments form will navigate the user back to the Scheduler Form.

Searching Appointments table

1. Click on search field (red arrow in below image) and input what the user is trying to search for.
2. Click on the Search Button and see the results being filtered.

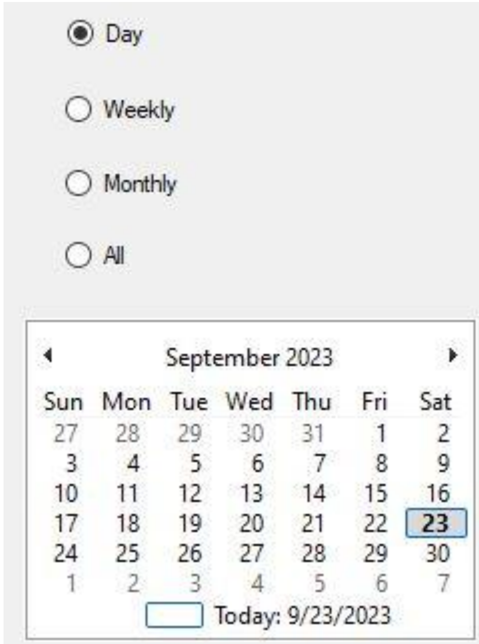


Calendar Form

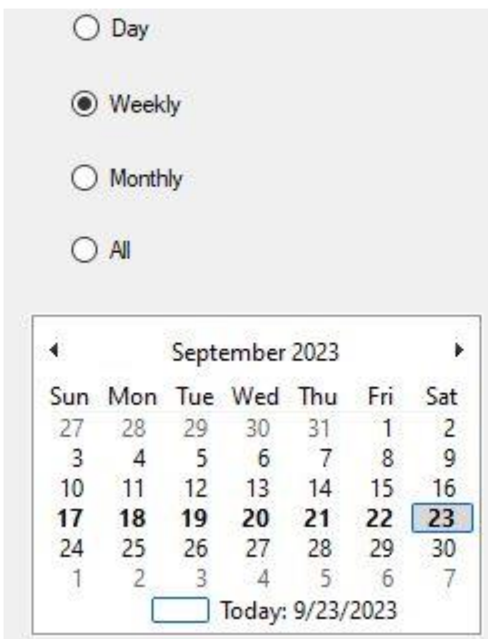


1. The Calendar Form has four radio buttons that determine duration since appointment, a calendar, and a Go back button.

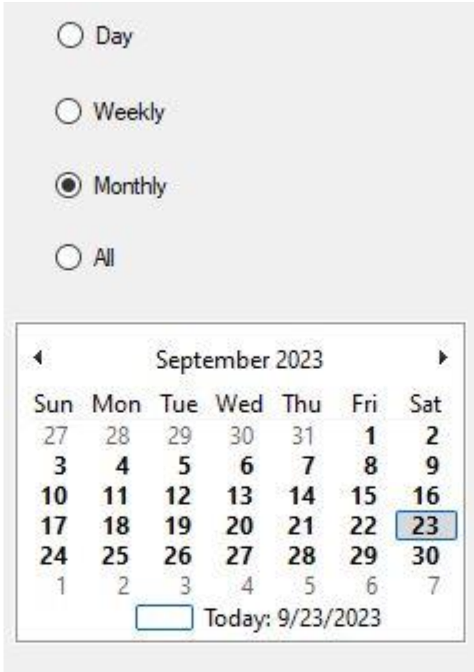
2. Clicking on the Day radio button displays all the appointments for that day.



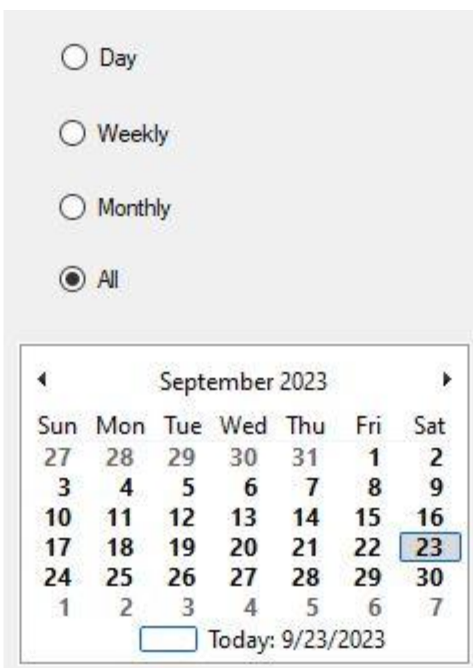
3. Clicking on the Weekly radio button displays all the appointments for that week.



4. Clicking on Monthly radio button displays all the appointments for that month.



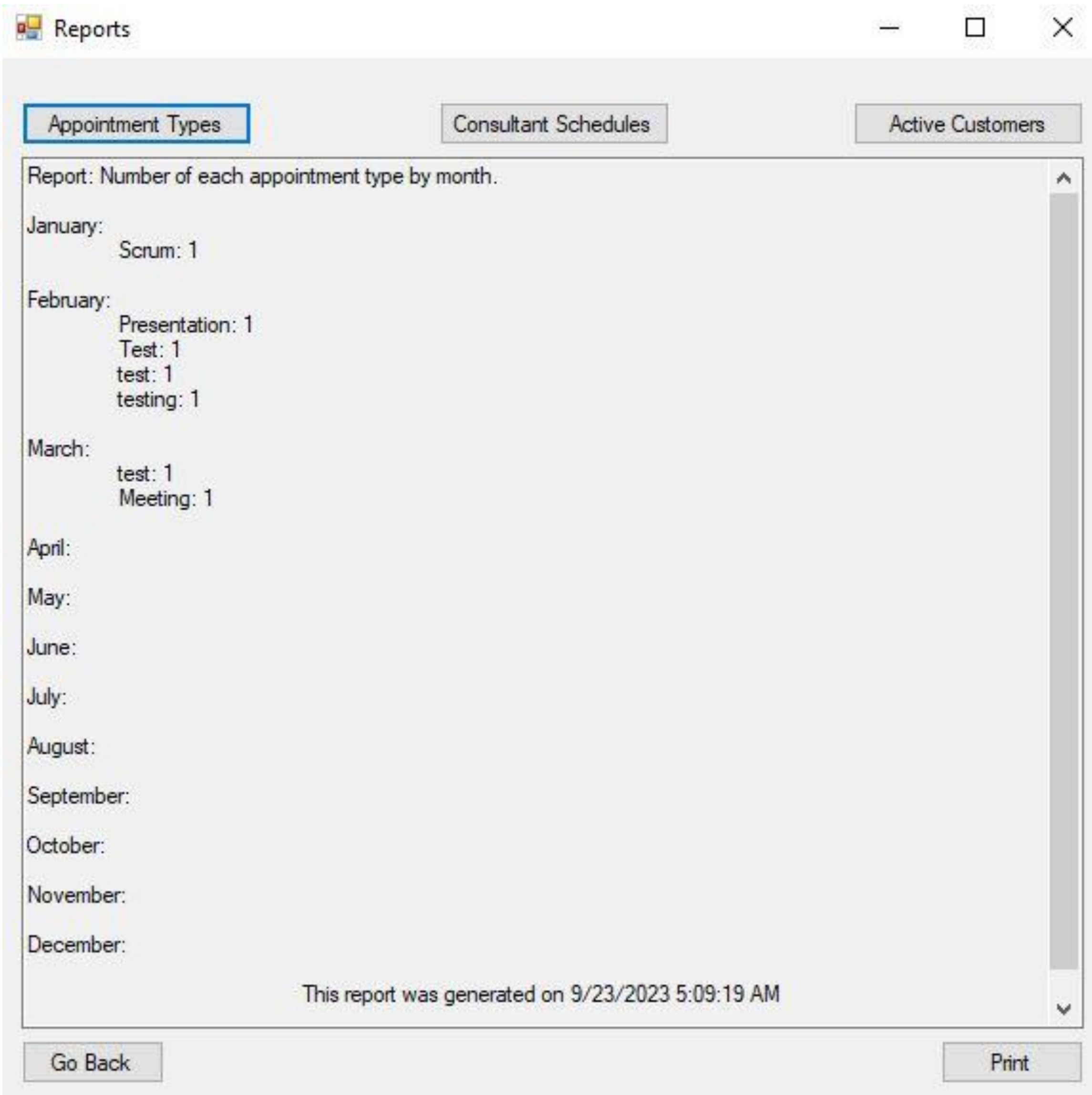
5. Clicking the All radio button displays all the appointments for the previous and future 10 years.



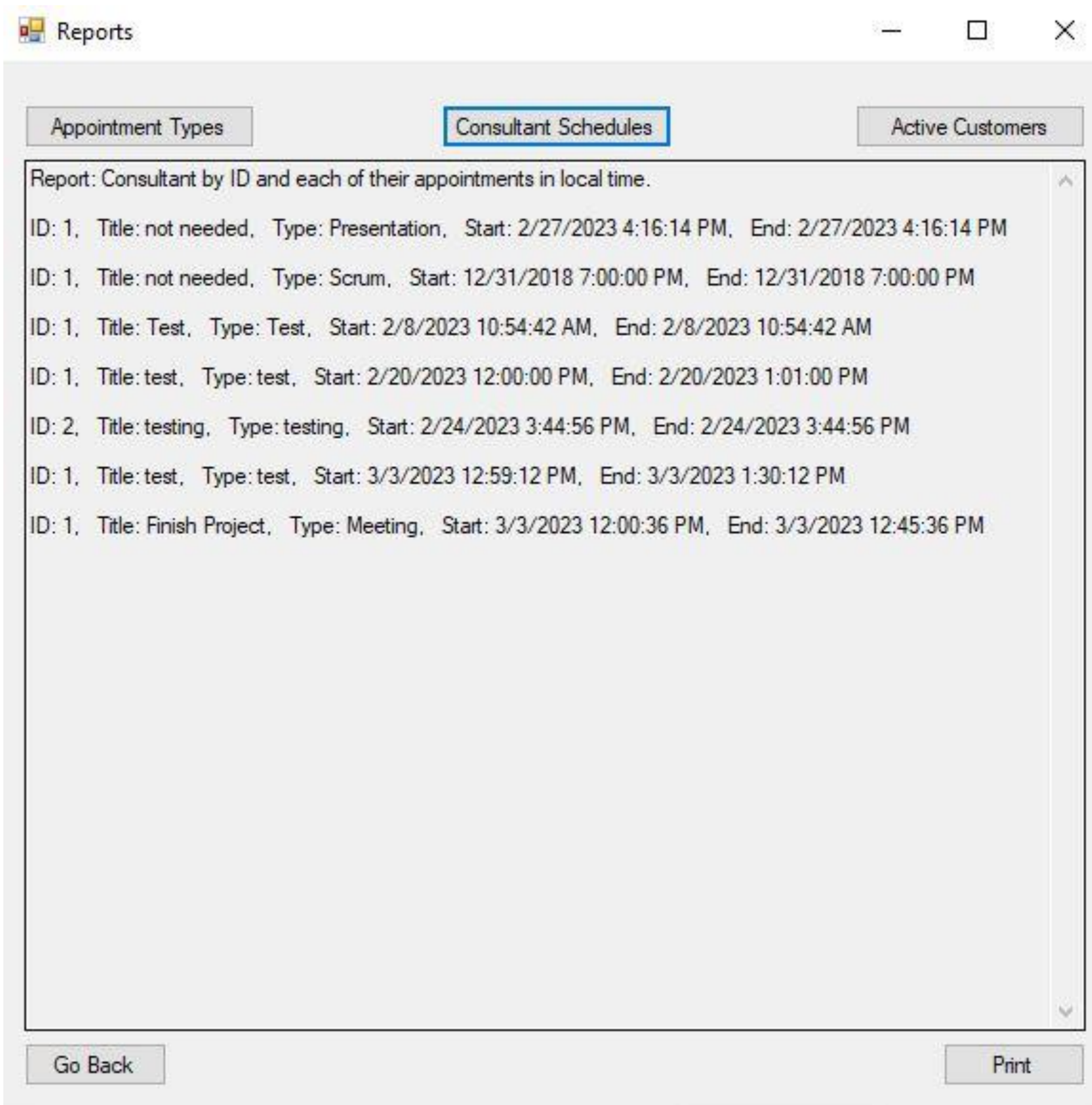
Administrator Guide

Reports Form (Requires an AdminUser account)

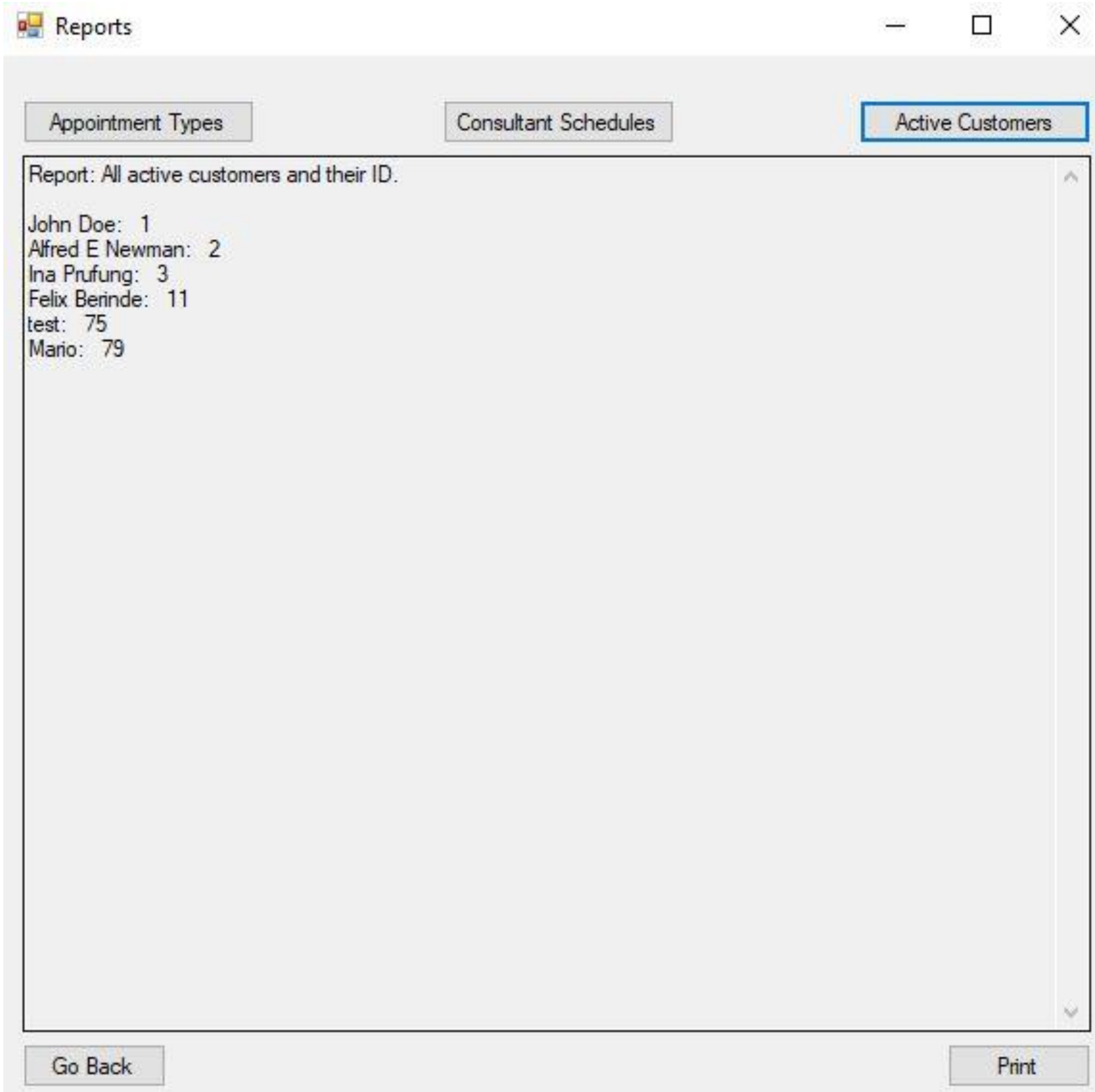
1. The Reports Form have five buttons. Appointment Types, Consultant Schedules, Active Customers, Go Back, and Print.
2. Clicking on the Appointment Types button generates the appointment type report.



3. Clicking on the Consultant Schedules button generates the consultant schedules report.

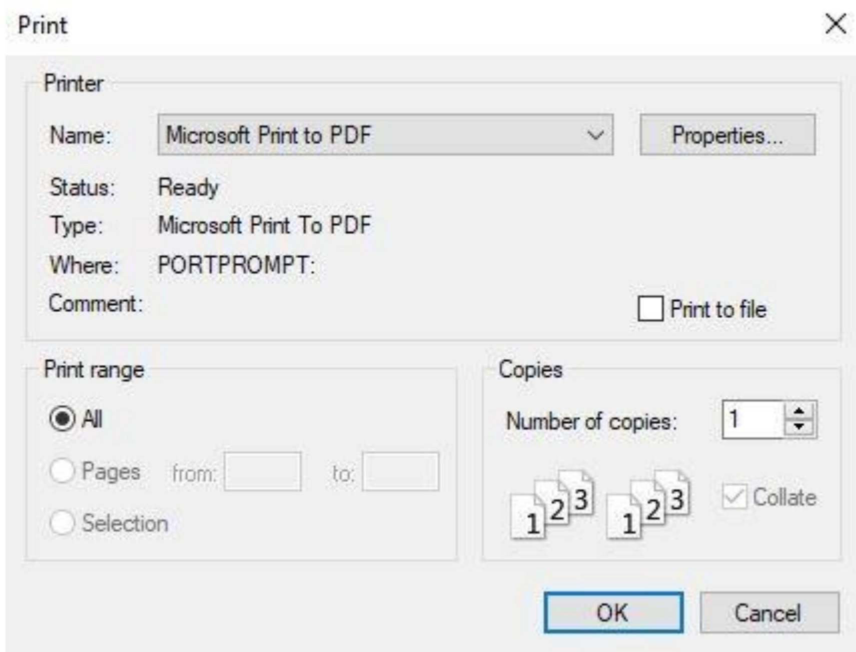


4. Clicking on the Active Customers button generates the Active Customer report.



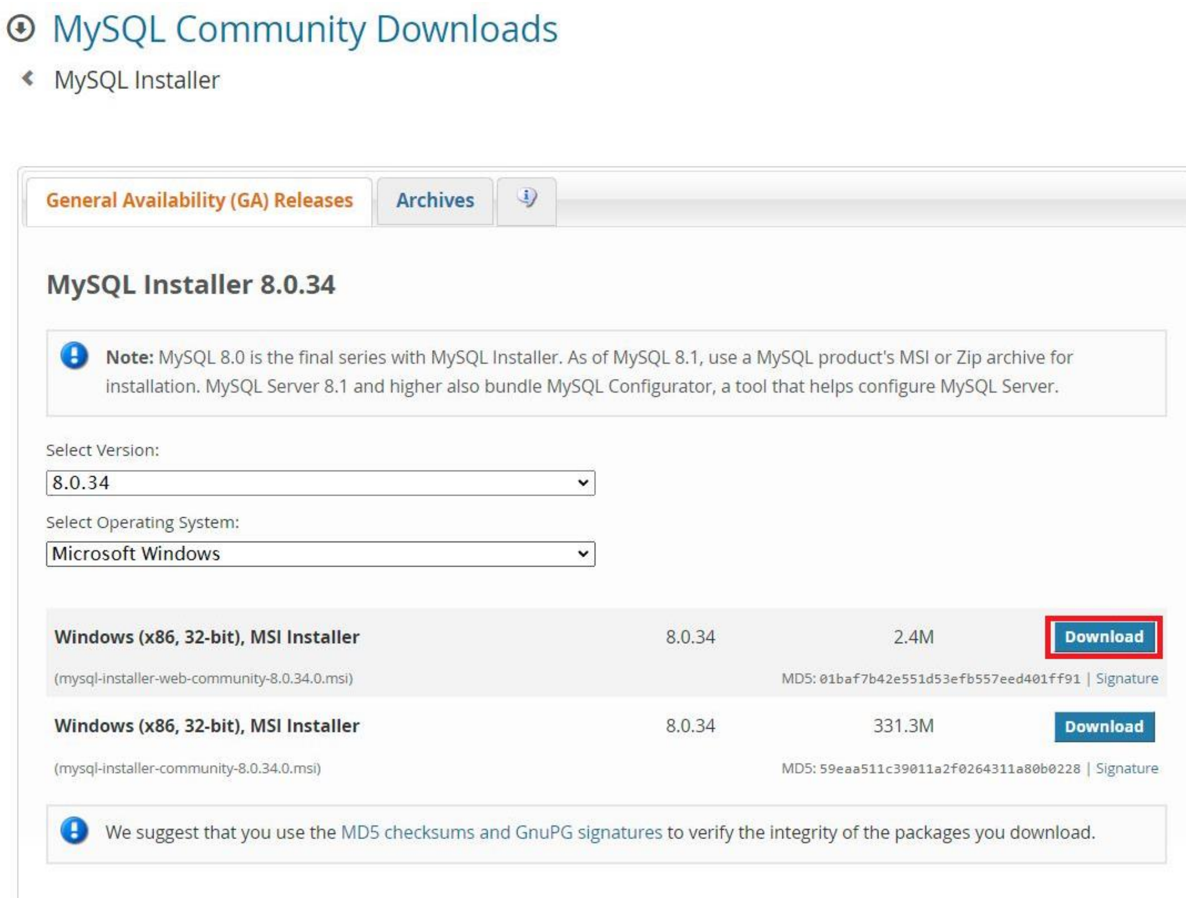
5. Clicking on Go Back navigates the user back to the Scheduler Form and closes the report form.

6. Clicking the print button creates a pop up prompt for printer settings.



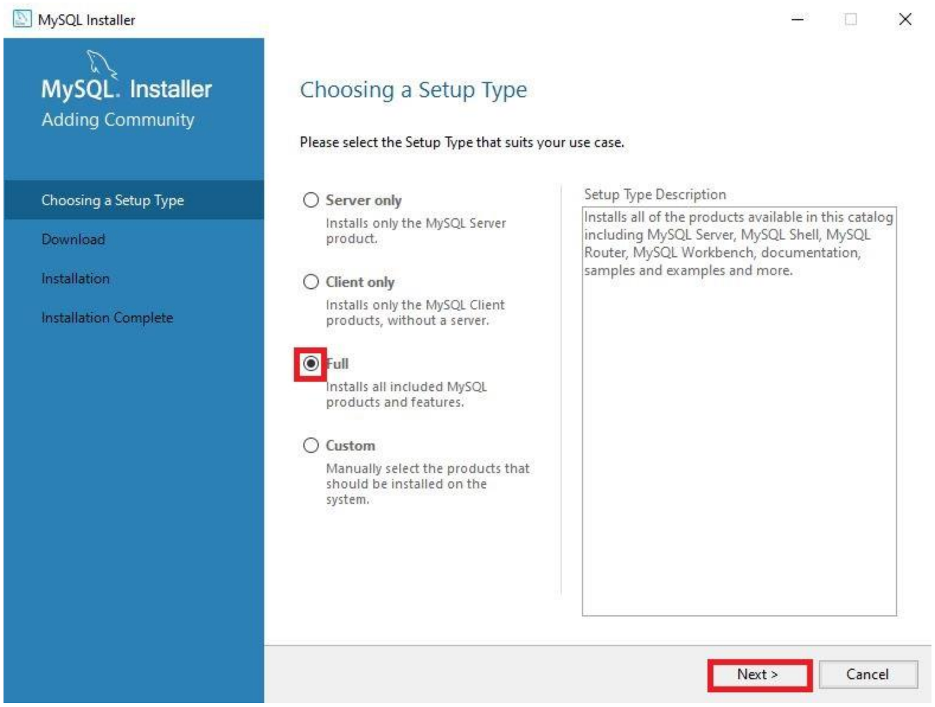
Installation and Configuration of MySQL Server

1. Visit this website https://dev.mysql.com/downloads/installer/
2. Click Download next to Windows (x86, 32-Bit), MSI Installer Version 8.0.34 at this time of writing.

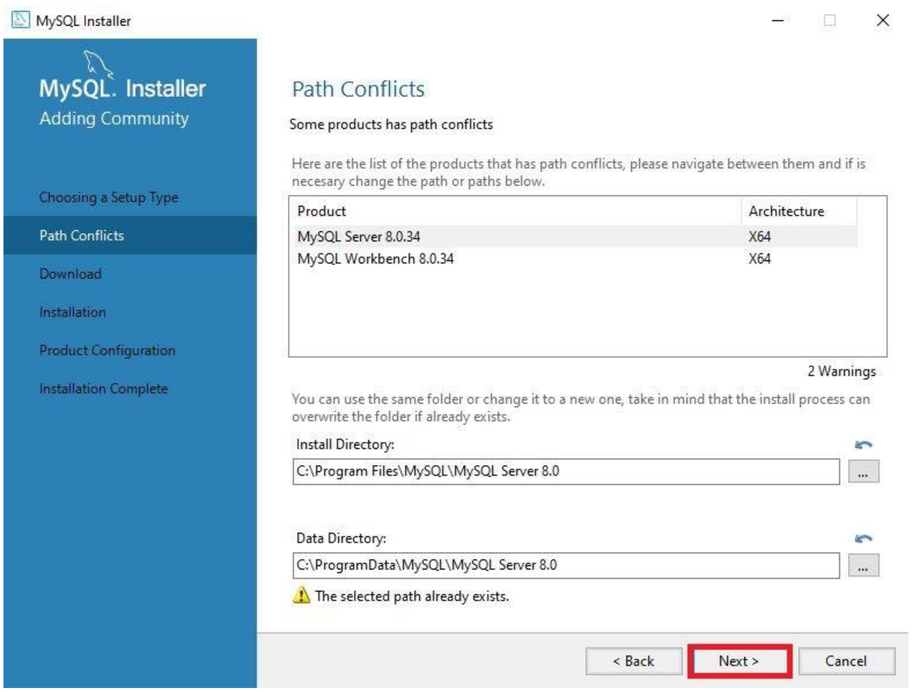


3. Wait for the download to finish and locate where it was saved.
4. Double left-click the mysql-installer-web-community-8.0.34.0 file to start the installation.

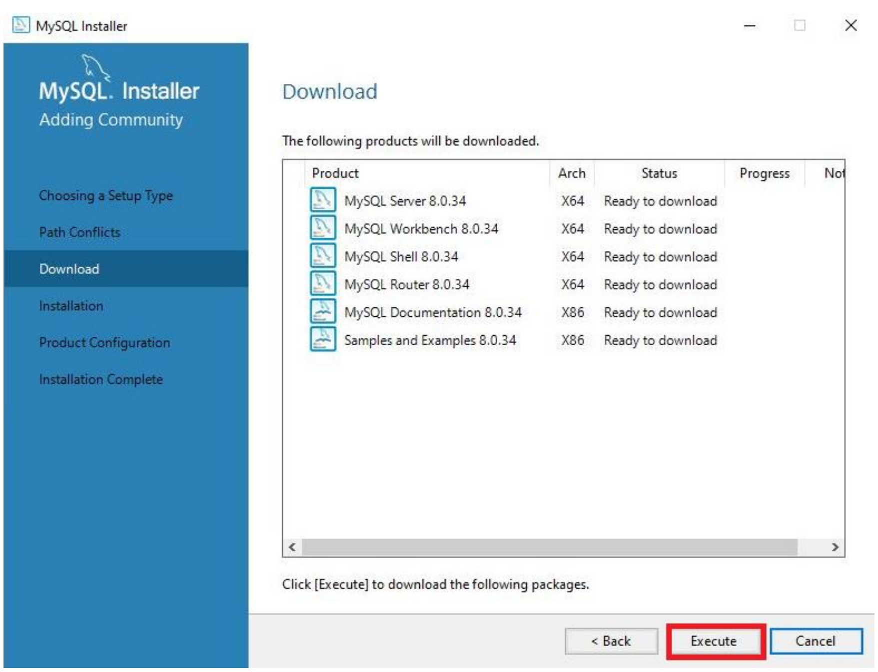
5. Click on the Full radio button and click next.



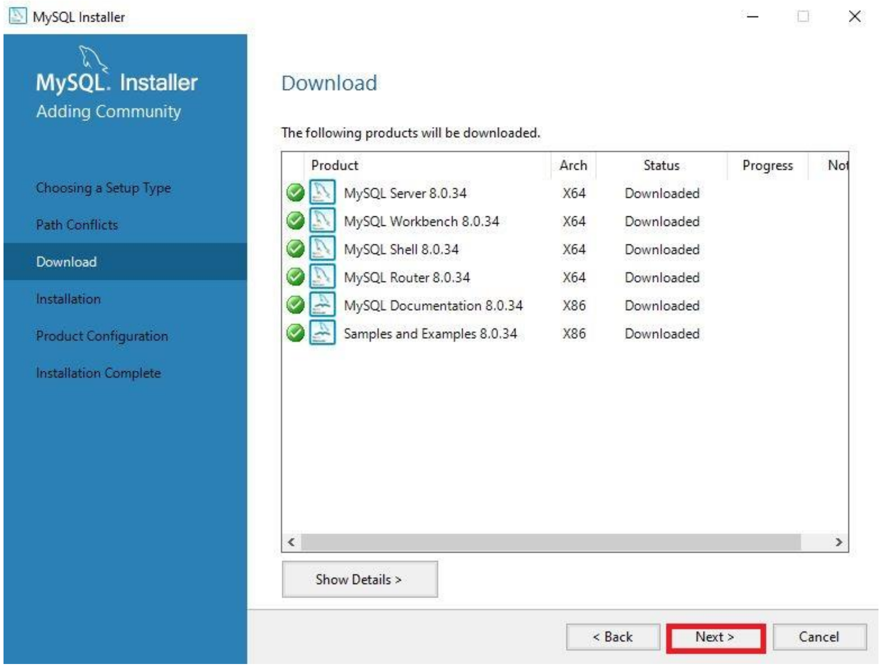
6. If the path conflicts screen is shown due to having MySQL previously installed, click on next to write over the old files.



7. Click execute to install the listed packages.



8. Once all packages have finished downloading click Next.

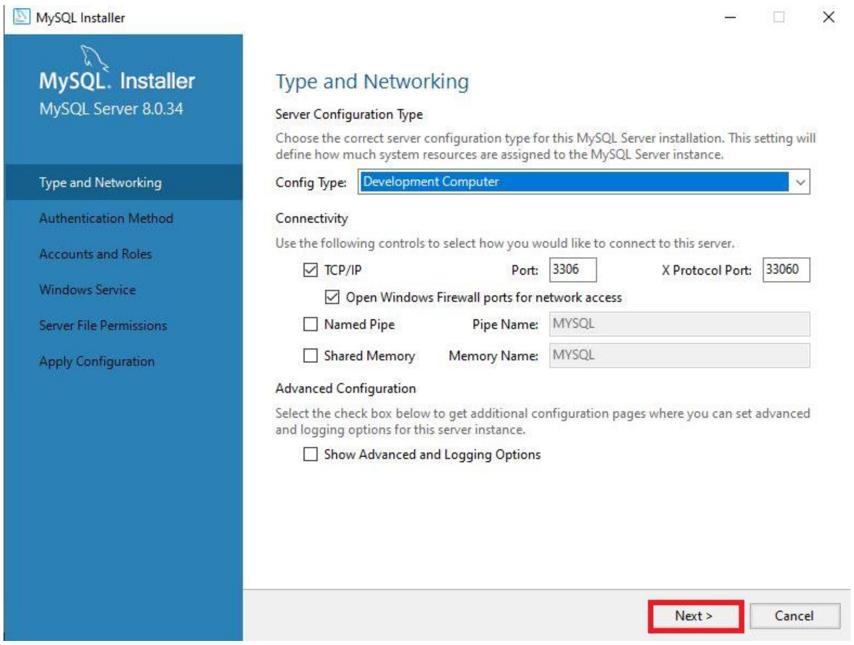


9. Click Execute again to install the packages.

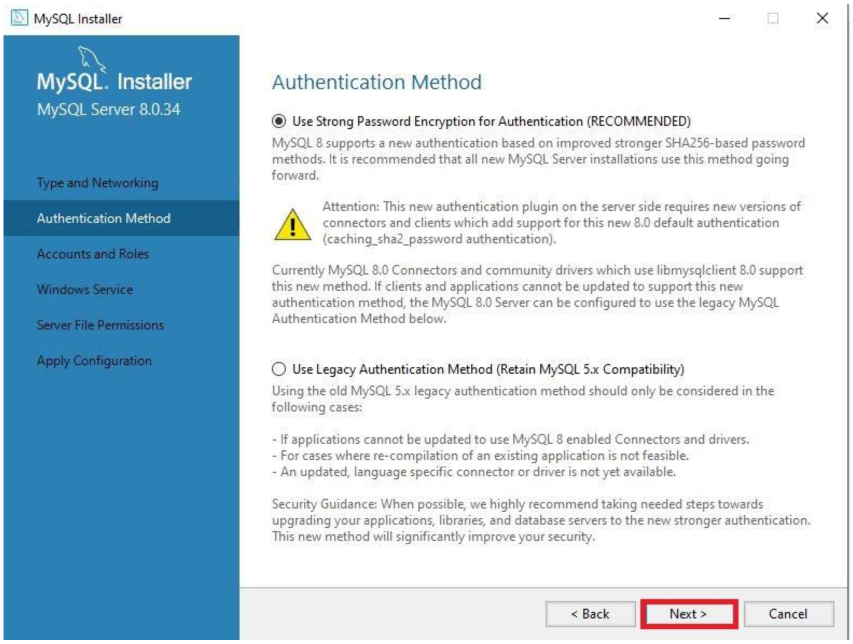
10. Once installation is complete click next again to move to the next step.

11. Click Next again to start configuration of the server.

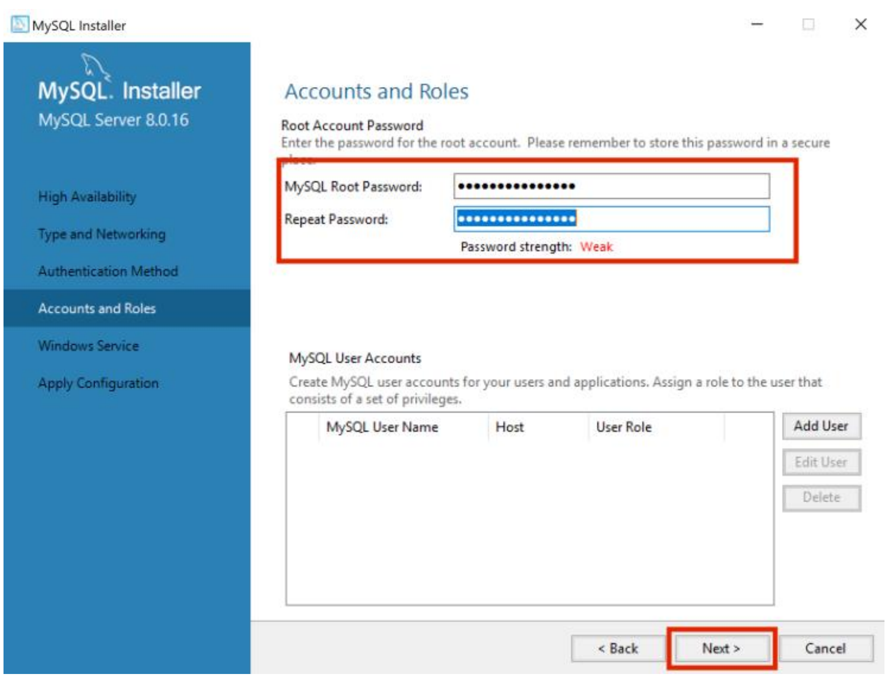
12. Leaving all default settings is fine confirm they match with the below image. Click Next.

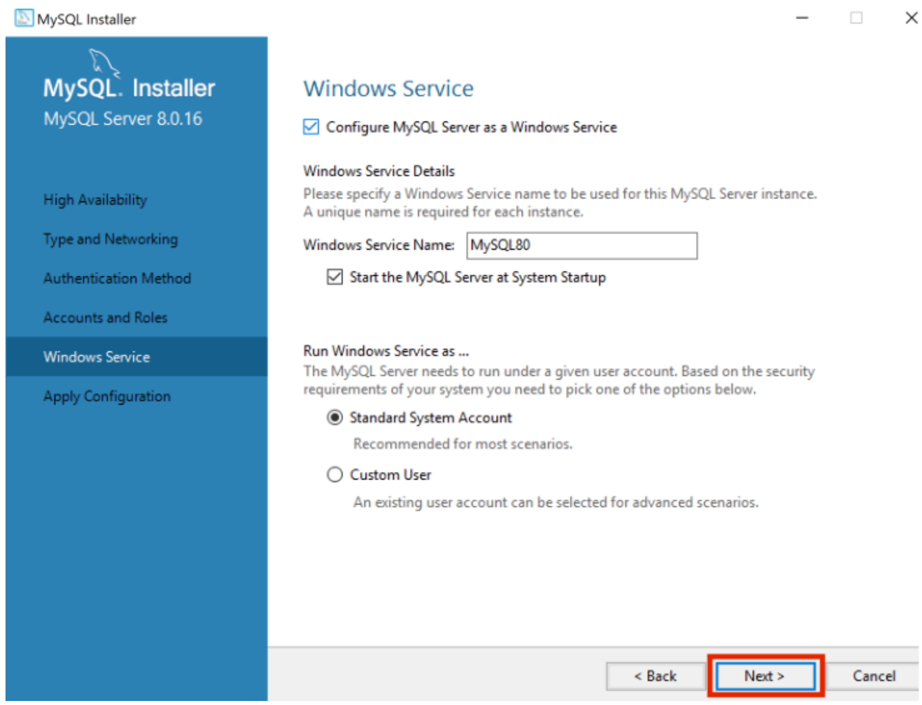


13. Leaving Use Strong Password Encryption for Authentication (RECOMMENDED) selected and clicking Next.

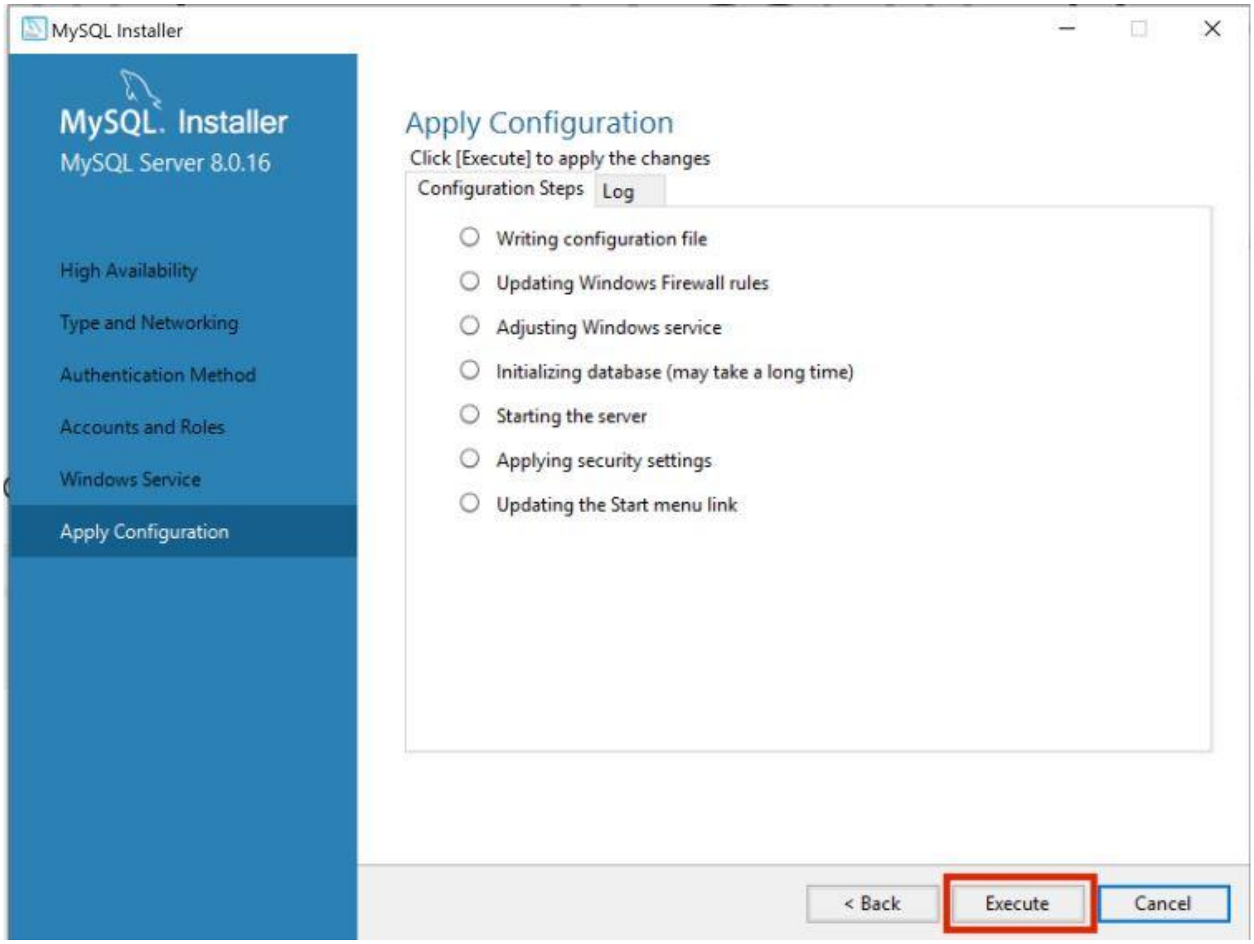


14. Enter a password that will be remembered in the future.





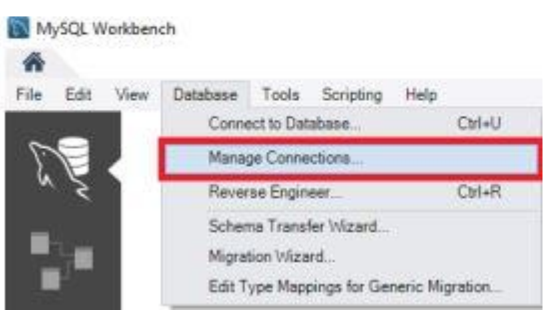
15. Click Execute to let the installer finish.



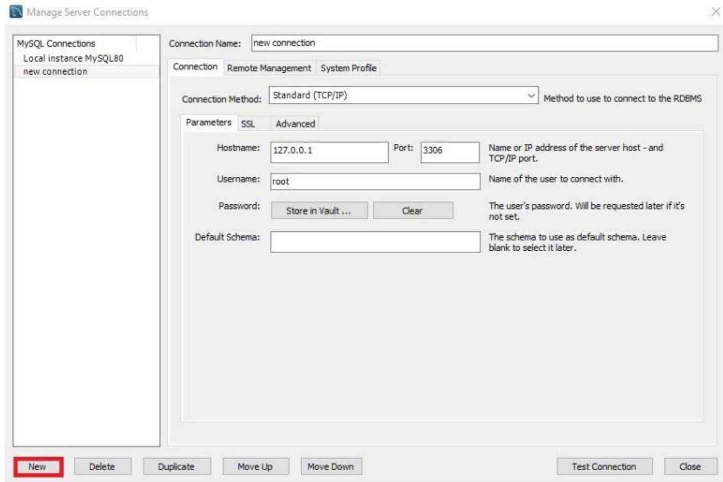
Setting Up the Database Connection

1. Start the MySQL Workbench application.

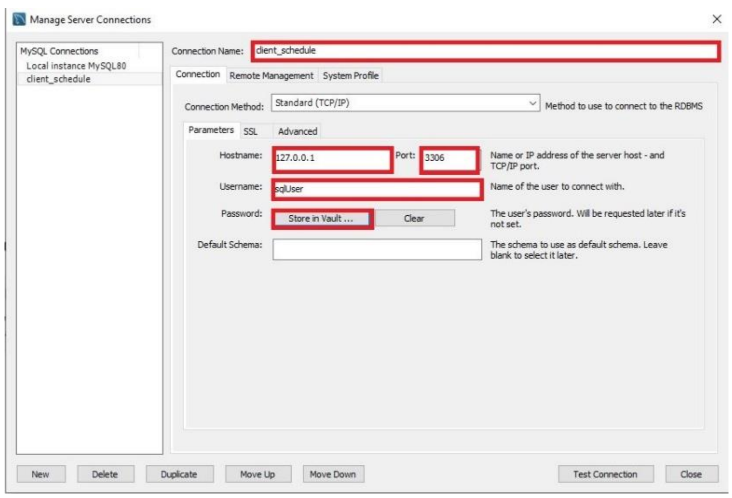
2. Under the menu click on Database and then click on manage connections.



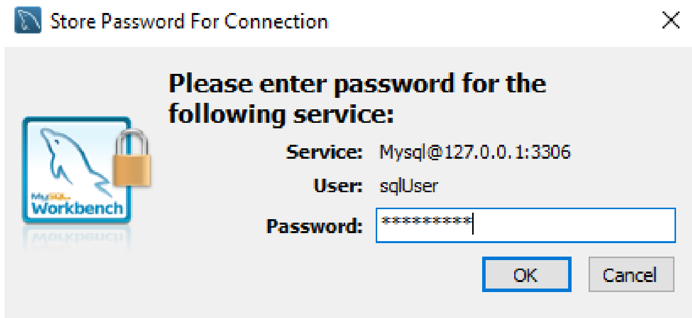
3. Click on New.



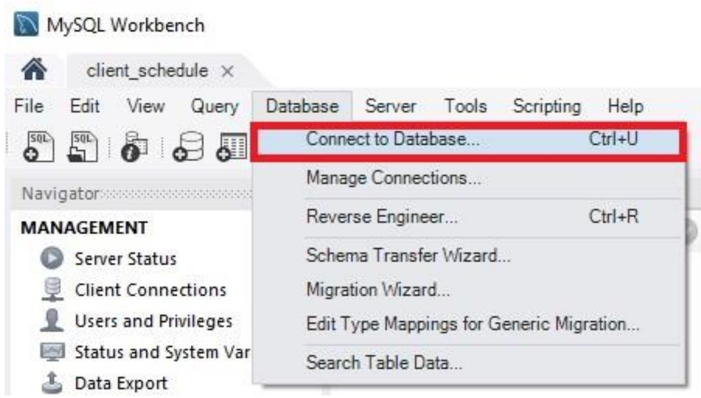
4. Enter “client_schedule” in the Connection Name field. Hostname can be either “127.0.0.1” or “localhost” port “3306”, username “sqlUser” and click on Store in Vault…



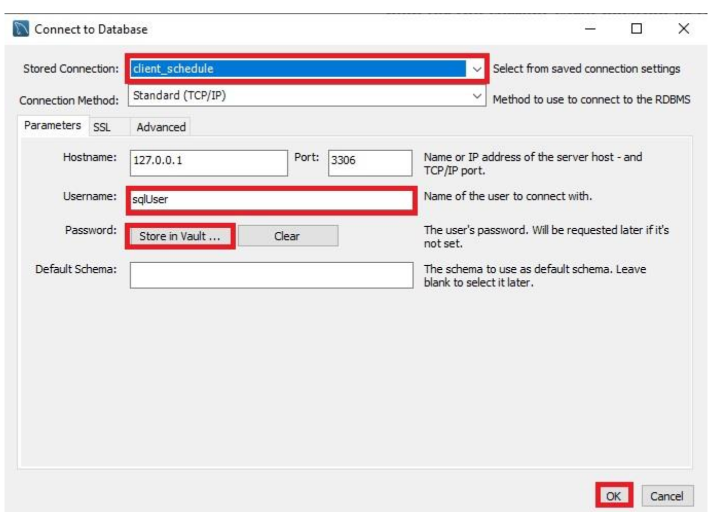
5. Enter "Passw0rd!" into the Password filed shown below and click OK.



6. In the file menu click on Database, and then click Connect to Database.



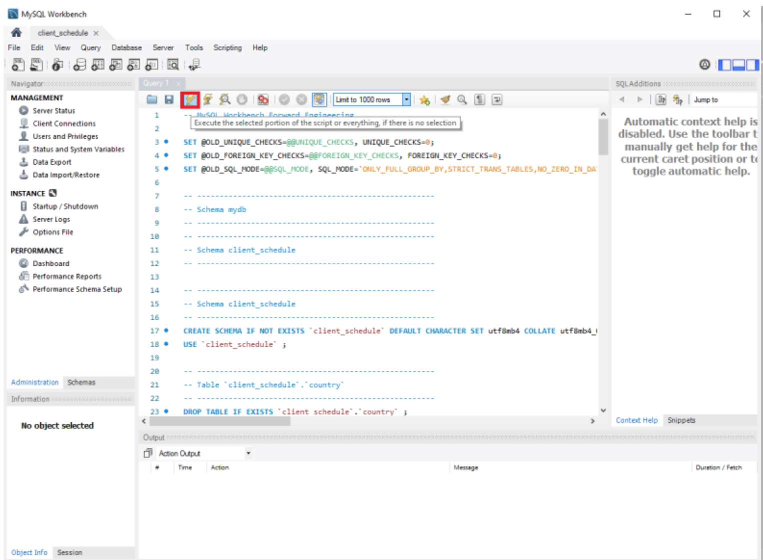
7. Click on the Stored connection dropdown and selected the "client_schedule" option. Confirm that the username and password are correct.



8. Congratulations! Now the database is configured correctly, and any SQL statements can be executed in the query tab.

Adding the Tables to the Database

1. Open the file labeled DatabaseCreationScript.txt and copy all the contents.
2. Paste the contents into the query tab that is already open and click Execute.

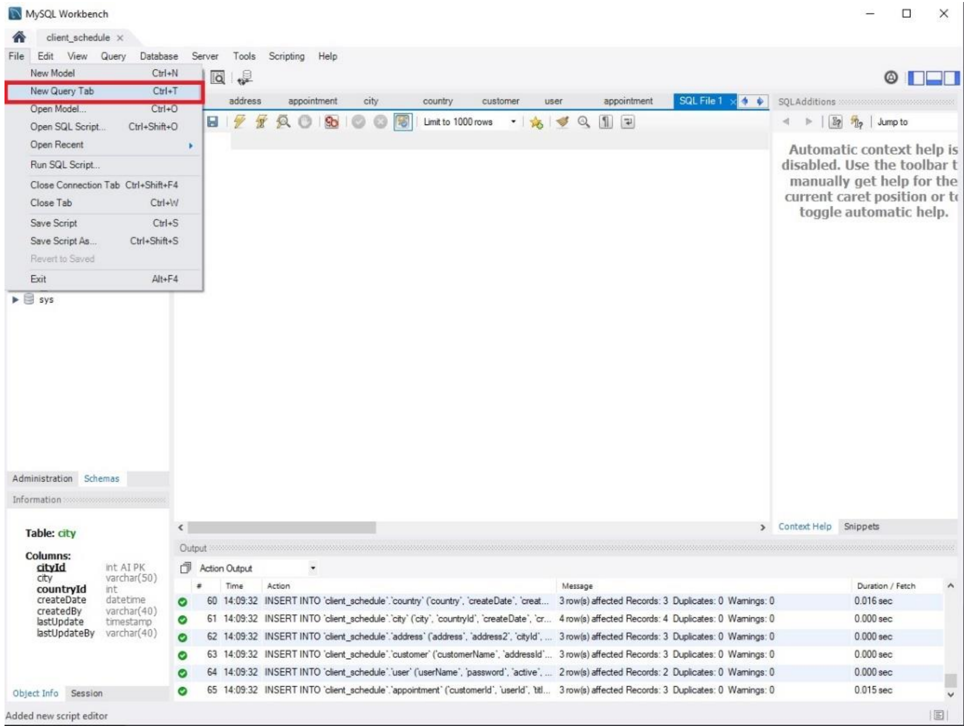


3. Congratulations! The tables have successfully been added to the database.

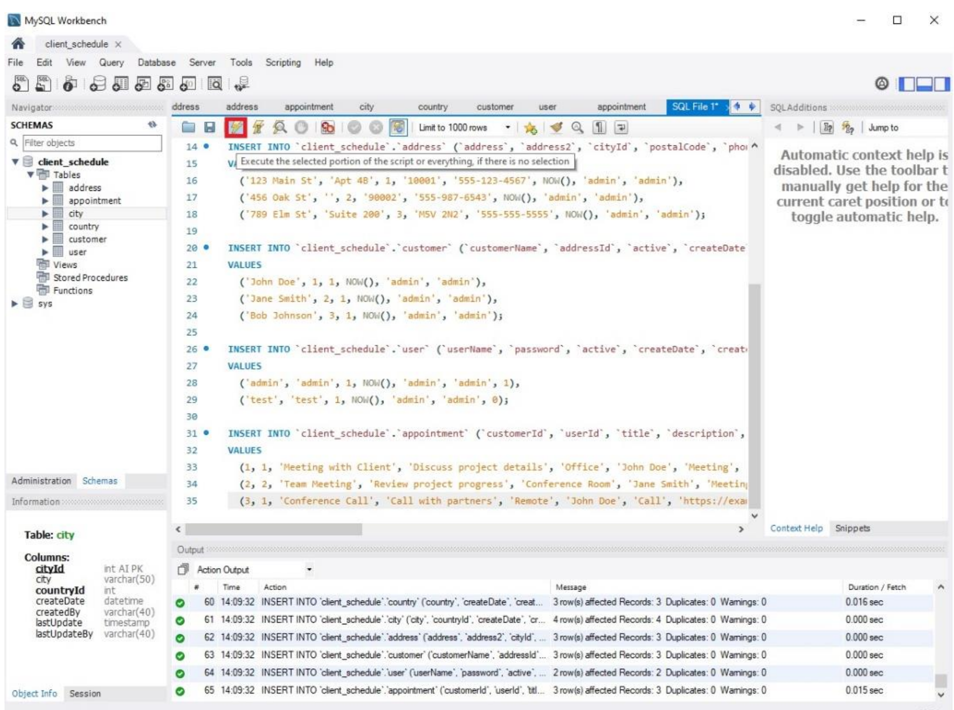
Populating the Tables in the Database with Test Data.

1. Open the file labeled DataBaseUserCreationScript.txt and copy all the contents in the document.

2. Click on File and then New Query Tab. This will open a new query window.



3. Paste the contents from the clipboard into the query tab and click execute.



4. Congratulations! Test data has been added to the database.

Adding, Removing, and Modifying Users

1. Connect to the database.
2. Open a new query as previously described.

A. Adding a user

1. Paste the following command into the query tab.

SELECT * FROM client_schedule.users;

2. Look for the userId with the largest number. (Usually sorted from top down).
3. Increment the userId by 1.
4. Paste the following command into the query tab and execute.

INSERT INTO client_schedule.user (userID, userName, password, active, createDate, createdBy, lastUpdate, lastUpdateBy, isAdmin) VALUES (4, 'Felix', 'fakepassword', 1, NOW(), 'admin', NOW(), 'admin', 1)

Change the value “4” to the userId from above, “Felix” can be replaced with any username and the same with “fakepassword”. If the user needs to not be an admin change the isAdmin value from 1 to 0.

5. Execute the completed query.
6. Congratulations! A new user has been added to the database!

B. Modifying a user

1. Paste the following command in a New Query Tab and click execute.

   UPDATE ‘client_schedule’.’user’ SET ‘username’ = ‘change_me’, ‘isAdmin’ = 1, ‘lastUpdate’ = NOW(), ‘lastUpdateBy’ = ‘admin’ WHERE ‘userId’ = #;

2. Look for the userId for the user that is needed to be modified with the below query.

   SELECT * FROM client_schedule.users;

3. Change the userId to the userId of the user that is needed to be modified.
4. Change any values and execute.
5. Congratulations! A user has just been successfully modified.

C. <u>Deleting a user</u>

D. Paste the following command in a New Query Tab.

1. DELETE FROM ‘client_schedule’.’user’ WHERE ‘userID’ = #;
2. Look for the userId for the user that is needed to be deleted with the below query.

   SELECT * FROM client_schedule.users;

3. Change the # symbol to the Id of the user that is being deleted.
4. Congratulations! The user has been successfully deleted.