C868 – Software Capstone Project Summary

Task 2 – Section C

Capstone Proposal Project Name: Oregon Dentistry Scheduling Application

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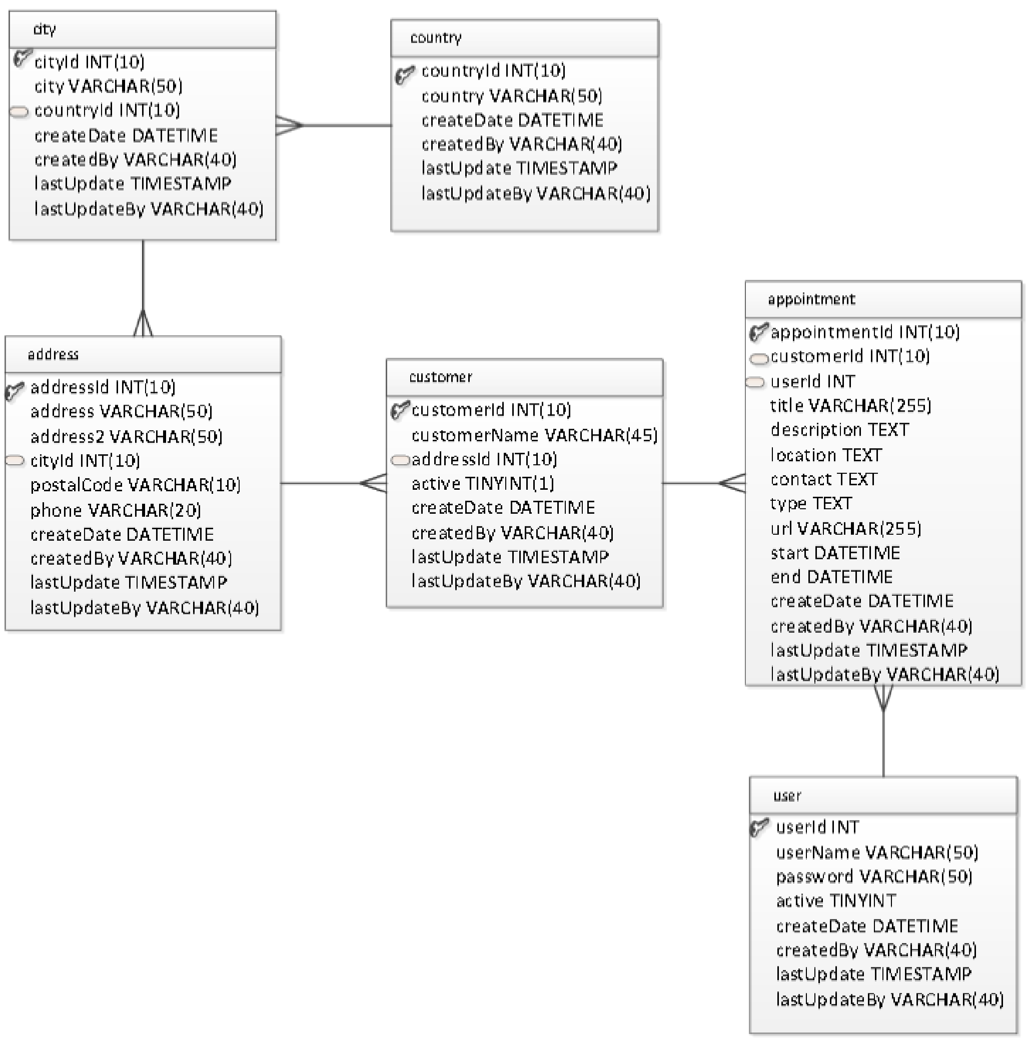
Class Design

The flowing is the ERD diagram for the application. Customers have an address, city, and country associated with them. A customer can have appointments scheduled for them by a user, in this case the 'user' is the person scheduling the appointment.



UI Design

The design of the application will focus on being easy to use so that appointments can be quickly and efficiently recorded. All main elements of the application will be accessible from the main landing page after login. The following pictures are select high-fidelity UI elements.

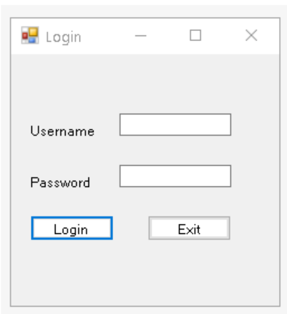


Fig 1. Login Screen

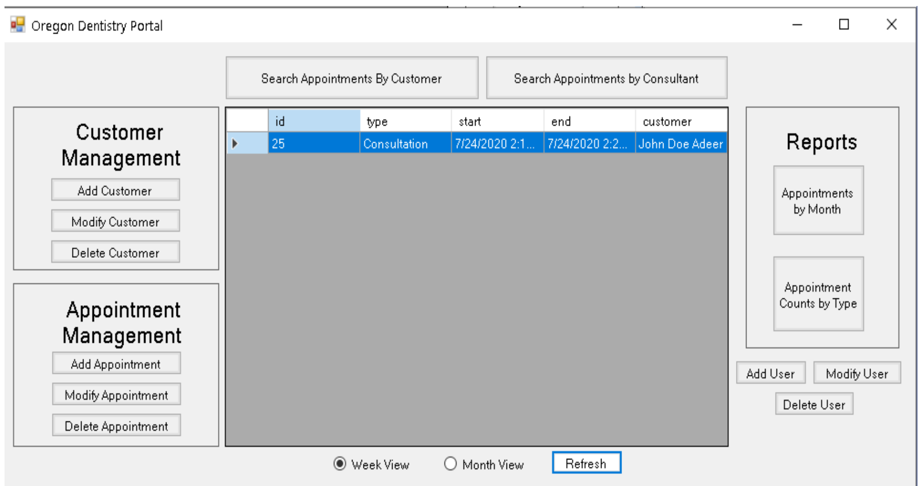


Fig 2. Main page of application with view of appointments for the month or week.

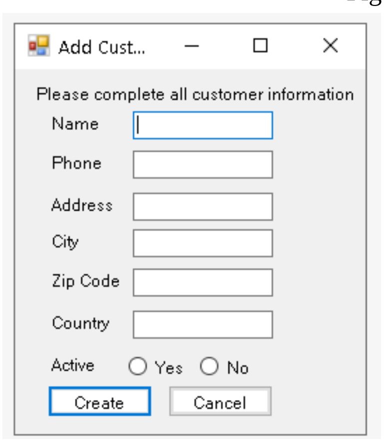


Fig 3. Add Customer Page (modify and delete use the same UI)

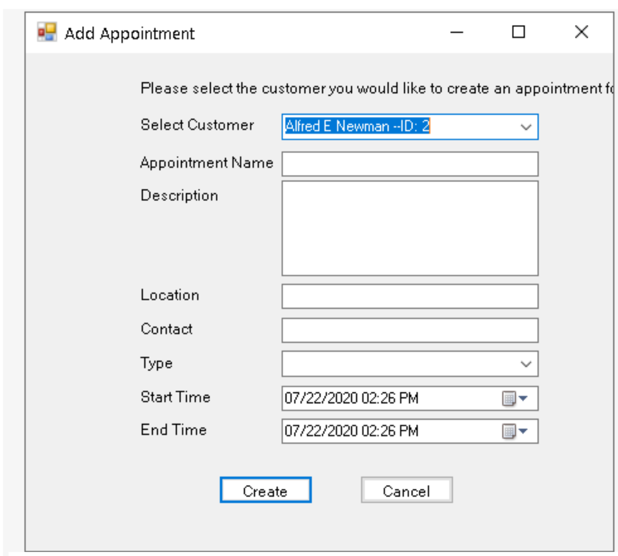


Fig 4. Add Appointment Page (modify and delete use the same UI)

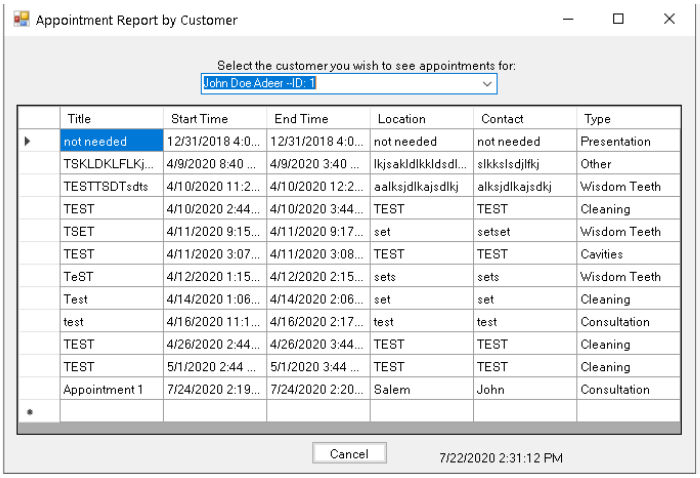


Fig 5. Select customer and view all appointments scheduled under their name.

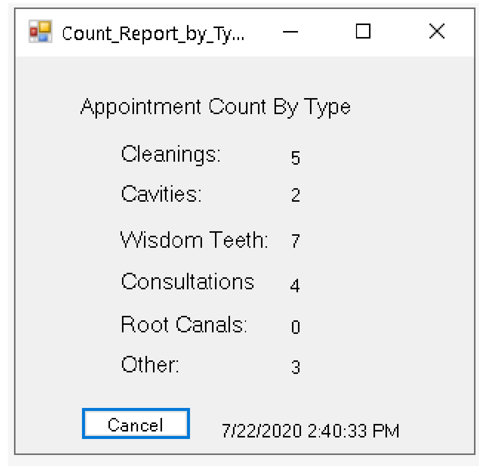


Fig 6. View report of total number of type of appointments

Unit Test Plan

Introduction

Purpose

The purpose of the following unit test plan is to ensure a functioning product for the customer Oregon Dentistry. The following unit test will ensure that the login form at application start does not accept incorrect values and only accepts accurate values.

Test No.	Description	Data	Expected Results	Actual Results	Pass/Fail
1	Login	Username: Test Account Password: test	Successful login.	Successful login.	Pass
2	Login	Username: null Password: null	Failed login with error message.	Failed login with error message.	Pass
3	Login	Username: wrong username Password: Wrong password	Failed login with error message.	Failed login with error message.	Pass

Overview

The unit test will be performed manually by using the user interface in the application. The developer will input correct, incorrect, and no values into the fields and inspect the result. The test plan and results are in the table above. There were no errors observed during the test.

Test Plan

Items

In order to complete the testing all steps of the test plan must pass and all steps must be complete. If a step fails, the bug must be reported and assigned to a developer in order to have it fixed, at which point testing begins again from the start. Once all test steps are completed without failure the testing is complete.

Features

The testing is completed via the UI. The results from the UI element shows whether the test was a success or failure. When the tester inputs values in the username and password fields and then clicks “login” the application calls the userCheck() method. This method runs a MySql command to see if a row exists in the database with the given username and password. If it does it returns a 1 and proceeds with login. If it does not it returns a 0 and throws a login error to the tester. See code below.

```
1 reference
public static int userCheck(string user, string password)
{
    MySqlConnection connection = new MySqlConnection(connectionString);
    connection.Open();
    MySqlCommand command = new MySqlCommand($"SELECT userID, userName FROM user where userName = '{user}' AND password = '{password}'", connection);
    MySqlDataReader reader = command.ExecuteReader();
    if (reader.HasRows)
    {
        reader.Read();
        setUserID(Convert.ToInt32(reader[0]));
        setUserName(Convert.ToString(reader[1]));
        reader.Close();
        connection.Close();
        return 1;
    }
    connection.Close();
    return 0;
}
```

Deliverables

The deliverables for the unit test are the test plans and test results in the table on page 5.

Tasks

To perform the tests in the test plan you first must run the application in Debug mode in Visual Studio 2019. The tester will follow the steps according to the test plan and input the given values into the Username and Password fields. The tester will record the results of each input and whether it was a success or failure.

Needs

Windows 10, Visual Studio Community 2019, MySql Connection are needed for testing.

Pass/Fail Criteria

If the test plans actual results do not meet with the expected result the test is a failure. If it is the same as the expected result it is a pass.

C4. Source Code

Source code for the application is included in the .zip file submitted with the other materials.

User Guide

Note: This may be included as a separate document if you desire.

Introduction

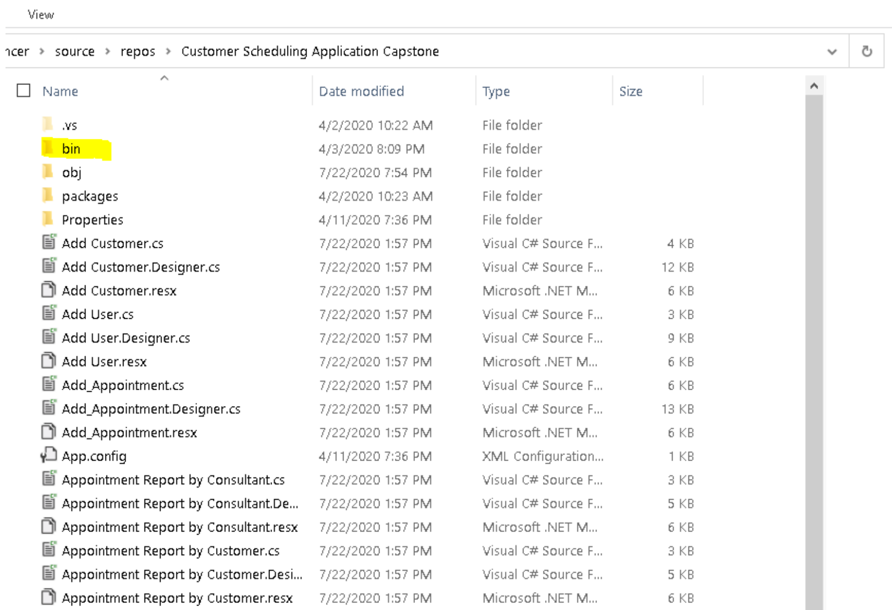
The following user guide's purpose is to document steps to install the application on a Windows 10 PC and perform some most of the basic functions in the application.

Installation and Using the Application

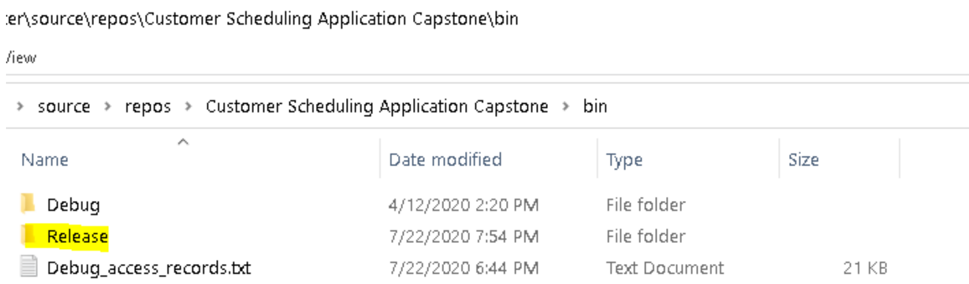
Installation.

1. Download or transfer the .zip file from a flash drive or the network.
2. Extract the .zip to the desired location.

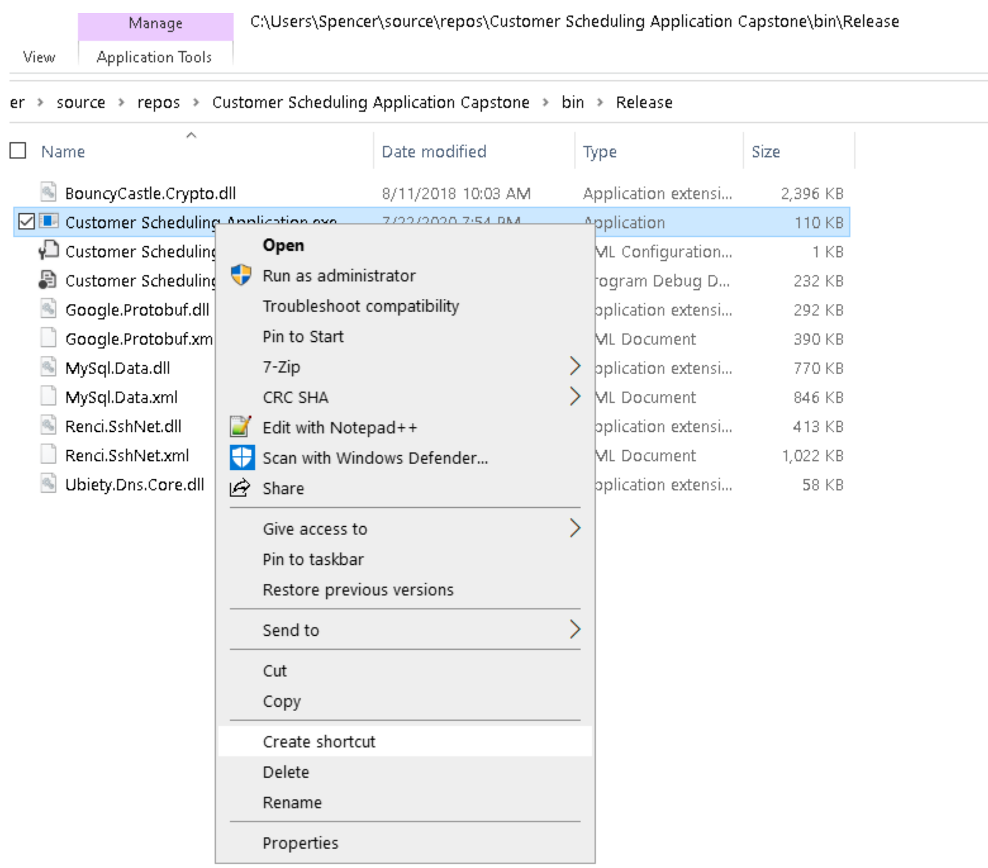
3. Open the Customer Schedule Application folder and navigate to the "bin" folder.



4. Open the "Release" folder.



5. If you wish to create a shortcut to the application right click on Customer Scheduling Application.exe and click create shortcut.



6. Move the shortcut to wherever you desire. And double click on it to open the application.

This procedural information should follow the basic rules of such technical references. While some procedures may provide for personal judgment yours should be clear and concise. Here are other rules to remember:

- Provide step-by-step sequences in the correct order.
- Follow the timing and sequencing of the actual operations.
- Provide visual stepping stones by using bullets or labeling steps.
- Strive to be concise. Avoid lengthy paragraphs but include enough detail so false assumptions are not made.
- Use common terms and jargon appropriate for the audience (someone with basic IT background).
- Explain why steps are completed or what they will yield as well as "How to" instructions.
- Test the instructions to ensure they match the actual product.
- Format the material for ease of reading and use graphic aids to clarify point/steps.
- Write in the present tense and the active voice.

***Login and Signup (An example*)**

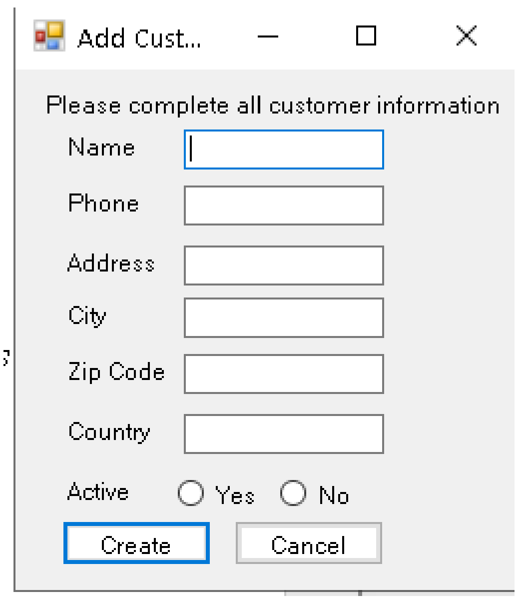
1. *To login simply open the application and enter your username and password.*
2. *The default username is 'Test Account' and the default password is 'test'*
3. *The system will notify you if you type it in wrong or the account does not exist. Contact your administrator if you need help with your account.*

Customers

Add Modify and Delete Customers

1. *Once logged in, you can add, modify and delete customers. That is done from this section of the application.*

2. *Click on "Add Customer"*

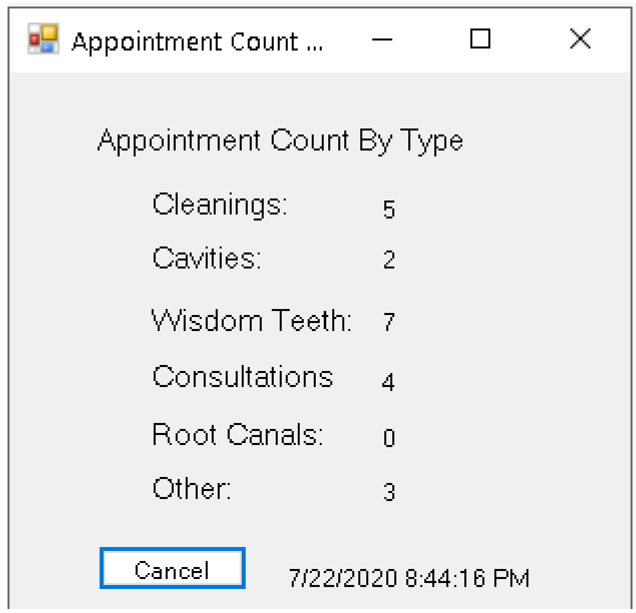


3. *In this window you can add a new customer. Please ensure all fields are complete and accurate.*
4. *Click "Create" to create the new customer and be directed back to the main portal.*
5. *You can "Modify" and "Delete" a customer in a similar fashion. Click "Modify Customer" or "Delete Customer", select the customer you wish to modify and then make your changes or delete the customer.*

   **If you delete a customer with appointments attached to the customer the appointments will also be deleted.*

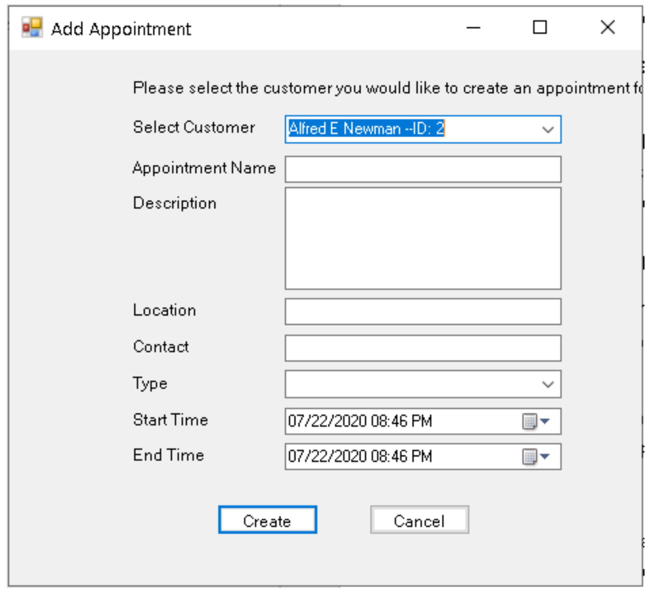
Reports

1. *The application has a number of reports built in. To access the reports simply click the report you wish to view. You can view the amount of appointments in a given month or view the amount of appointments of a given type. Simply select the report you wish to view.*



Appointments

1. *The application has functionality to add, modify, and delete appointments.*
2. *To perform one of those actions simply click on the corresponding button.*



3. *First you will have to select the customer you wish to make an appointment for. Select one from the drop-down menu.*
4. *Then you can input all the details of the appointment.*
5. *The appointments start time must not be after the end time and the application will confirm that the appointment does not overlap with an existing appointment.*
6. *Click create to create your appointment.*