

C868 – Software Capstone Project Summary

Task 2 – Section C



Capstone Proposal Project Name: Oregon Dentistry Scheduling Application

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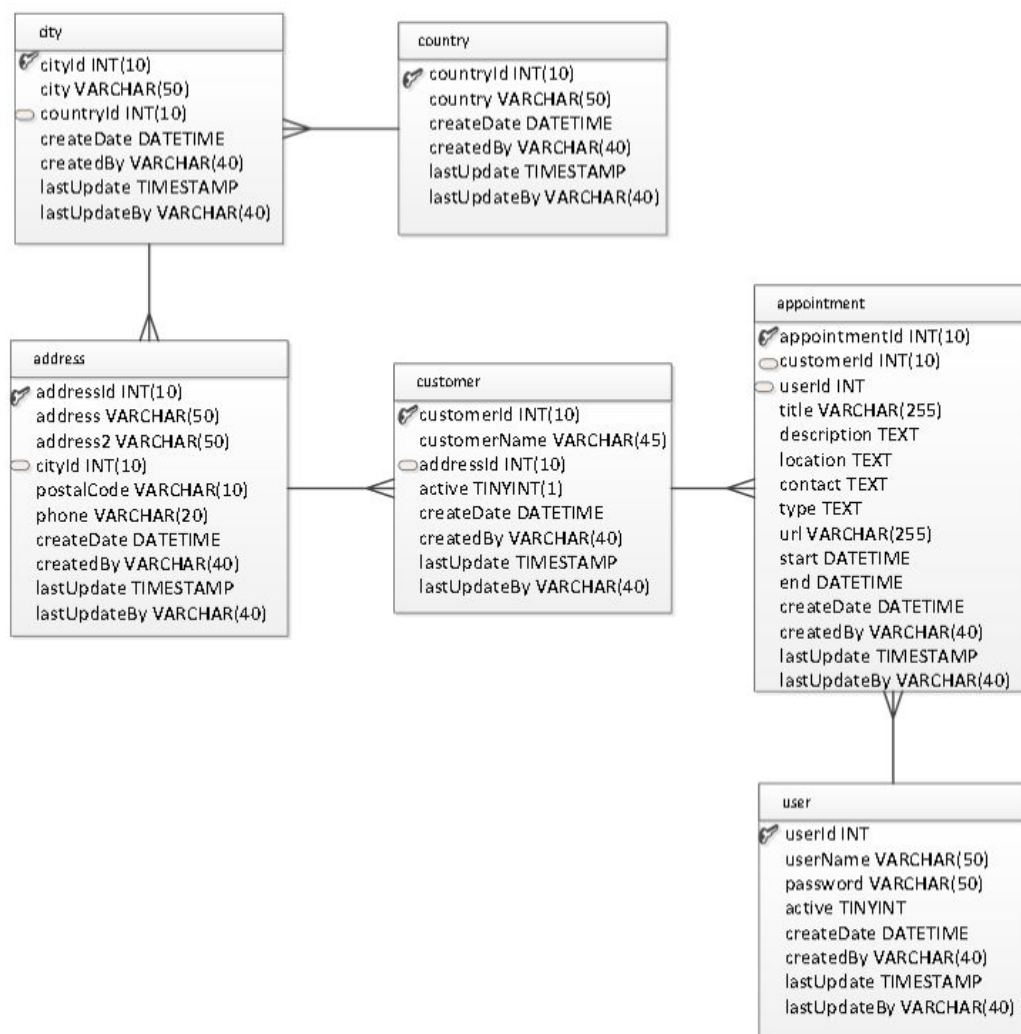
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Application Design and Testing

Design Document

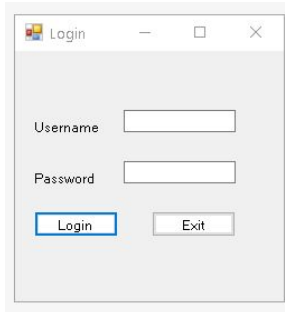
Class Design

The following 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.



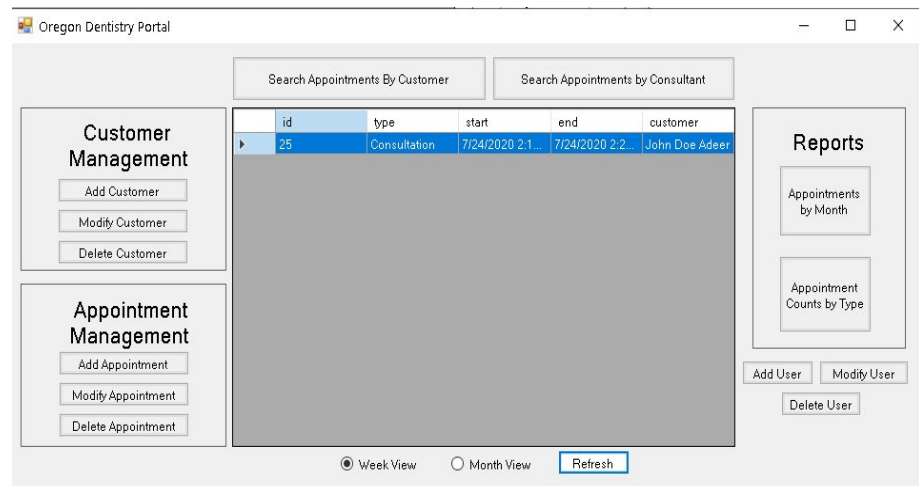
UI Design

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.



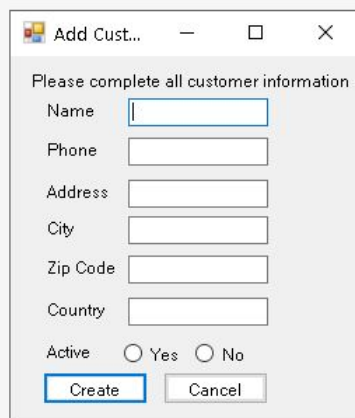
A login window titled "Login" with a standard Windows-style title bar. It contains two text input fields: "Username" and "Password". Below the "Password" field are two buttons: "Login" (highlighted with a blue border) and "Exit".

Fig 1. Login Screen



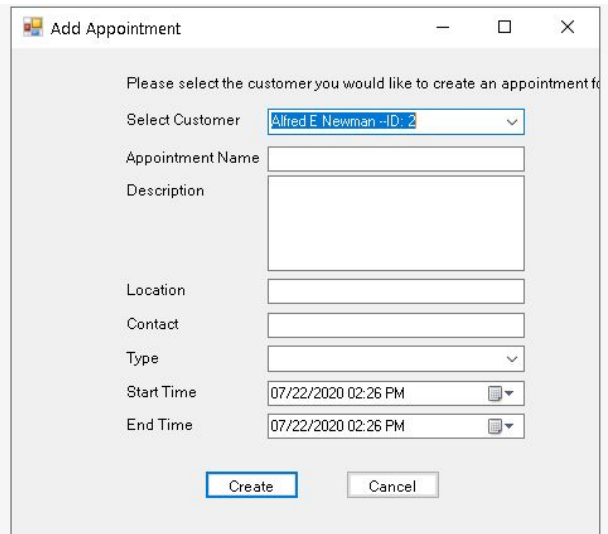
The main application window titled "Oregon Dentistry Portal" features a complex layout. At the top, there are two search bars: "Search Appointments By Customer" and "Search Appointments by Consultant". The main content area is divided into three sections. On the left, under "Customer Management", are buttons for "Add Customer", "Modify Customer", and "Delete Customer". Below that, under "Appointment Management", are buttons for "Add Appointment", "Modify Appointment", and "Delete Appointment". The center section displays a table of appointments with columns: id, type, start, end, and customer. The first row shows an appointment with id 25, type Consultation, start time 7/24/2020 2:1..., and end time 7/24/2020 2:2..., for customer John Doe Adeer. On the right, under "Reports", are buttons for "Appointments by Month" and "Appointment Counts by Type". At the bottom right, there are buttons for "Add User", "Modify User", and "Delete User". At the very bottom, there are radio buttons for "Week View" (selected) and "Month View", along with a "Refresh" button.

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



A window titled "Add Cust..." with a title bar. It contains the text "Please complete all customer information". Below this are several text input fields: "Name", "Phone", "Address", "City", "Zip Code", and "Country". There are also two radio buttons for "Active", with "Yes" selected. At the bottom are "Create" (highlighted with a blue border) and "Cancel" buttons.

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



A window titled "Add Appointment" with a title bar. It contains the text "Please select the customer you would like to create an appointment for". Below this is a dropdown menu for "Select Customer" with "Alfred E Newman -ID: 2" selected. There are text input fields for "Appointment Name" and "Description". Below these are fields for "Location", "Contact", and "Type" (a dropdown menu). At the bottom are "Start Time" and "End Time" fields, both showing "07/22/2020 02:26 PM" with a calendar icon. At the very bottom are "Create" (highlighted with a blue border) and "Cancel" buttons.

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

Oregon dentistry scheduling application5

Appointment Report by Customer

Select the customer you wish to see appointments for:
John Doe Adams - JD-1

Title	Start Time	End Time	Location	Contact	Type
not needed	12/31/2018 4:0...	12/31/2018 4:0...	not needed	not needed	Presentation
TSKLDKLFKj...	4/9/2020 8:40 ...	4/9/2020 3:40 ...	lkjsakldklkdsdl...	slkksldjlkj	Other
TESTTSDTeds	4/10/2020 11:2...	4/10/2020 12:2...	aalksjdlkajsdkj	alkajdlkajsdkj	Wisdom Teeth
TEST	4/10/2020 2:44...	4/10/2020 3:44...	TEST	TEST	Cleaning
TSET	4/11/2020 9:15...	4/11/2020 9:17...	set	setset	Wisdom Teeth
TEST	4/11/2020 3:07...	4/11/2020 3:08...	TEST	TEST	Cavities
TeST	4/12/2020 1:15...	4/12/2020 2:15...	sets	sets	Wisdom Teeth
Test	4/14/2020 1:06...	4/14/2020 2:06...	set	set	Cleaning
test	4/16/2020 11:1...	4/16/2020 2:17...	test	test	Consultation
TEST	4/26/2020 2:44...	4/26/2020 3:44...	TEST	TEST	Cleaning
TEST	5/1/2020 2:44 ...	5/1/2020 3:44 ...	TEST	TEST	Cleaning
Appointment 1	7/24/2020 2:19...	7/24/2020 2:20...	Salem	John	Consultation

Cancel 7/22/2020 2:31:12 PM

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

Count_Report_by_Ty...

Appointment Count By Type

Cleanings: 5
Cavities: 2
Wisdom Teeth: 7
Consultations: 4
Root Canals: 0
Other: 3

Cancel 7/22/2020 2:40:33 PM

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.

Deliverables

Test plan and test results.

Tasks

Perform the tests in order by test number.

Notify developer of failures.

Complete tests.

Completion upon performing all tests.

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.

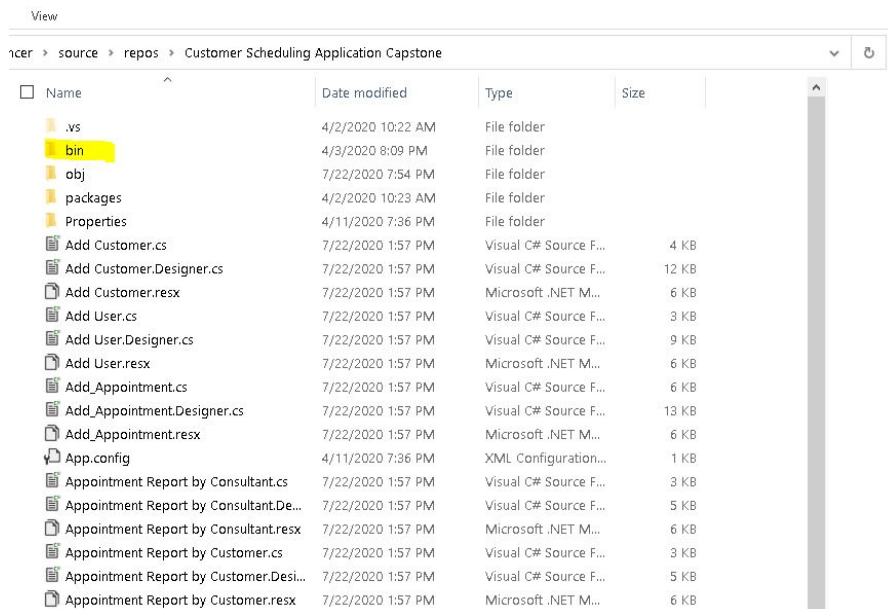
Introduction

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.

er\source\repos\Customer Scheduling Application Capstone\bin

View

> source > repos > Customer Scheduling Application Capstone > bin

Name	Date modified	Type	Size
Debug	4/12/2020 2:20 PM	File folder	
Release	7/22/2020 7:54 PM	File folder	
Debug_access_records.txt	7/22/2020 6:44 PM	Text Document	21 KB

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

Manage C:\Users\Spencer\source\repos\Customer Scheduling Application Capstone\bin\Release
View Application Tools

er > source > repos > Customer Scheduling Application Capstone > bin > Release

Name	Date modified	Type	Size
BouncyCastle.Crypto.dll	8/11/2018 10:03 AM	Application extensi...	2,396 KB
Customer Scheduling Application.exe	7/22/2020 7:54 PM	Application	110 KB
Customer Scheduling...		ML Configuration...	1 KB
Customer Scheduling...		rogram Debug D...	232 KB
Google.Protobuf.dll		pplication extensi...	292 KB
Google.Protobuf.xml		ML Document	390 KB
MySQL.Data.dll		pplication extensi...	770 KB
MySQL.Data.xml		ML Document	846 KB
Renci.SshNet.dll		pplication extensi...	413 KB
Renci.SshNet.xml		ML Document	1,022 KB
Ubity.Dns.Core.dll		pplication extensi...	58 KB

- Open
- Run as administrator
- Troubleshoot compatibility
- Pin to Start
- 7-Zip
- CRC SHA
- Edit with Notepad++
- Scan with Windows Defender...
- Share
- Give access to
- Pin to taskbar
- Restore previous versions
- Send to
- Cut
- Copy
- Create shortcut
- Delete
- Rename
- Properties

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

Login and Signup (An example)

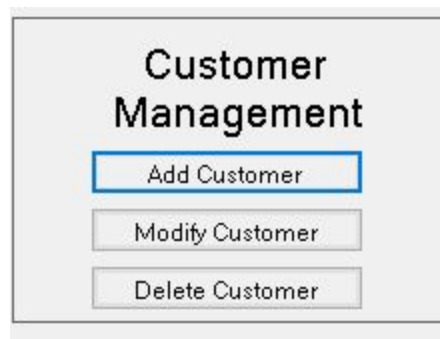
1. To login simply open the application and enter your username and password.
2. The default username is 'Test Account' and the default password is 'test'
3. The system will notify you if you type it in wrong or the account does not exist.

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

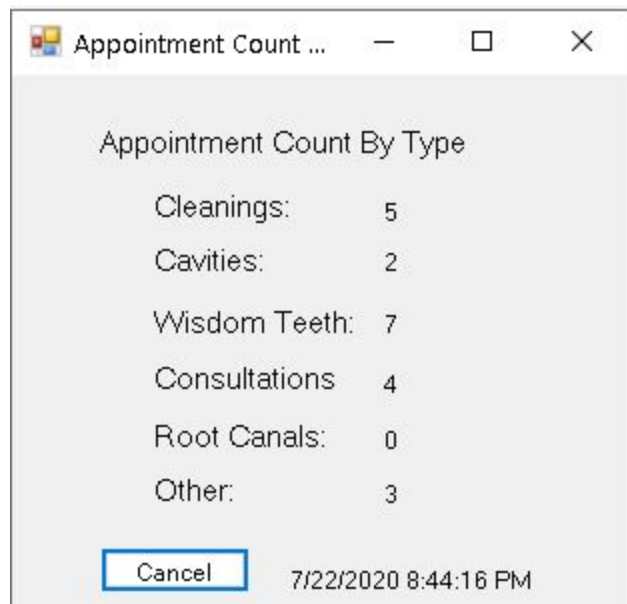
A screenshot of a software window titled "Add Cust...". The window contains a form with the following fields: "Name", "Phone", "Address", "City", "Zip Code", and "Country". Each field has a corresponding text input box. Below the "Country" field, there is an "Active" label followed by two radio buttons labeled "Yes" and "No". At the bottom of the form, there are two buttons: "Create" and "Cancel". The "Create" button is highlighted with a blue border.

“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.*



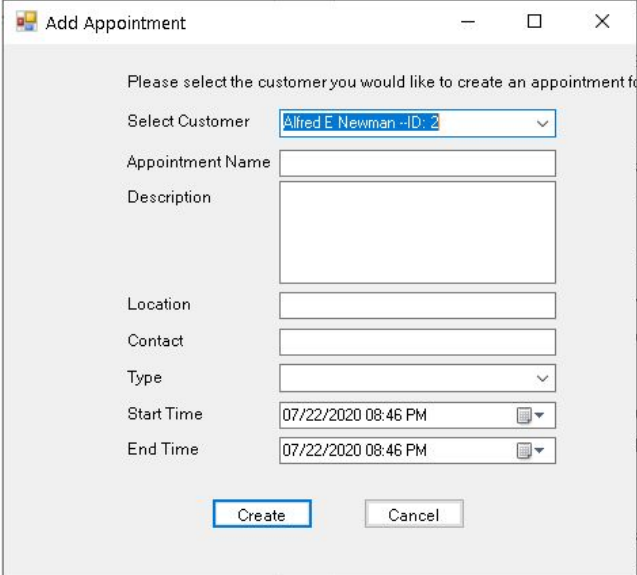
Appointments

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



on

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.*



The screenshot shows a window titled "Add Appointment" with standard Windows window controls (minimize, maximize, close). The window contains the following fields and controls:

- A message: "Please select the customer you would like to create an appointment for"
- "Select Customer": A dropdown menu with "Alfred E. Newman - ID: 2" selected.
- "Appointment Name": A text input field.
- "Description": A larger text input area.
- "Location": A text input field.
- "Contact": A text input field.
- "Type": A dropdown menu.
- "Start Time": A datetime picker showing "07/22/2020 08:46 PM".
- "End Time": A datetime picker showing "07/22/2020 08:46 PM".
- "Create": A blue button.
- "Cancel": A grey button.

