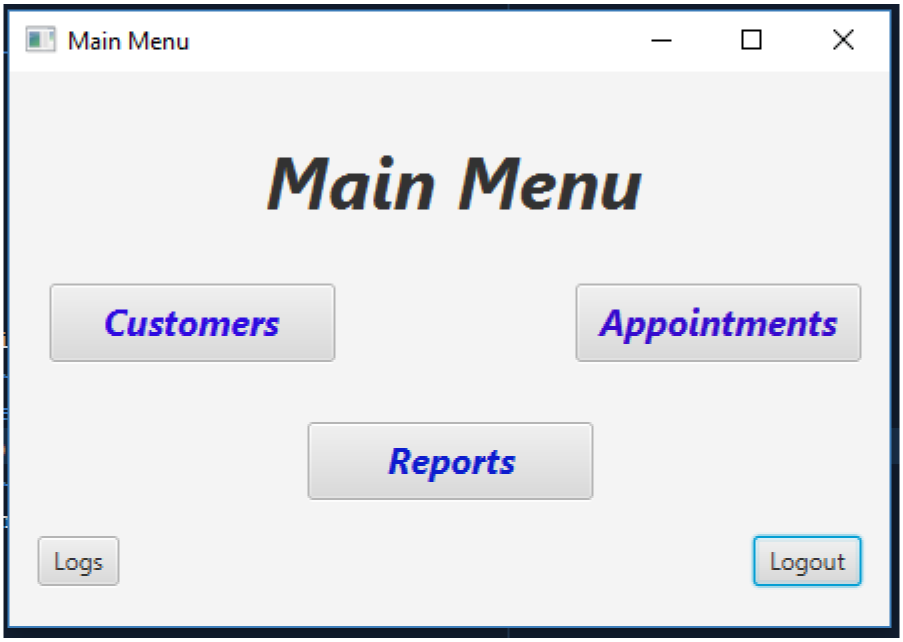
Software II- Advanced Java Concepts – C195

Eli Armstrong

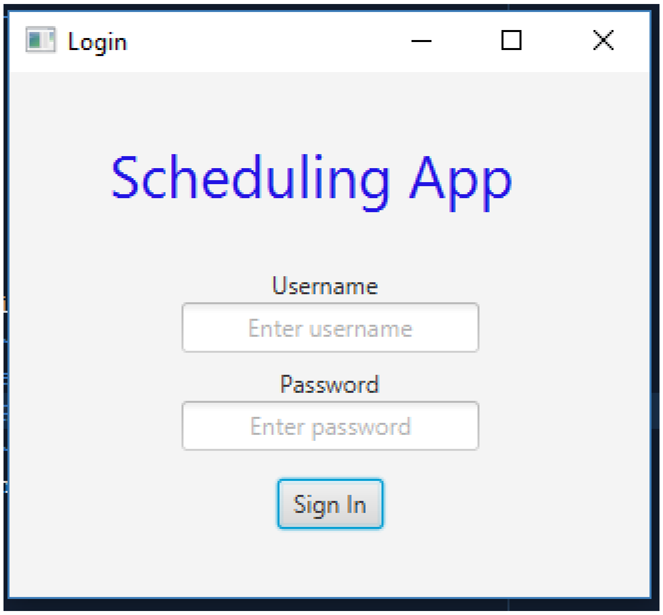
Student ID: 00930363

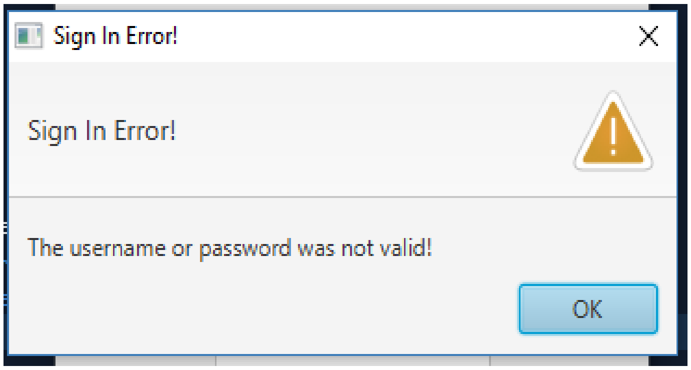


A. Create a log-in form that can determine the user’s location and translate log-in and error control messages (e.g., “The username and password did not match.”) into **two** languages.

Valid usernames/Passwords: test/test, luke/notmyfather, ed/password, and candace/123456

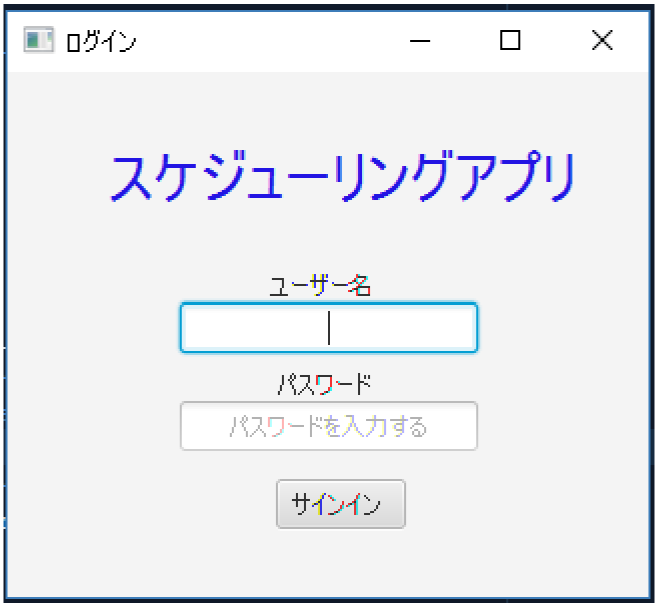
If you **uncomment line 44** in WGUSW2.java file the Locale default will be set to Japan.

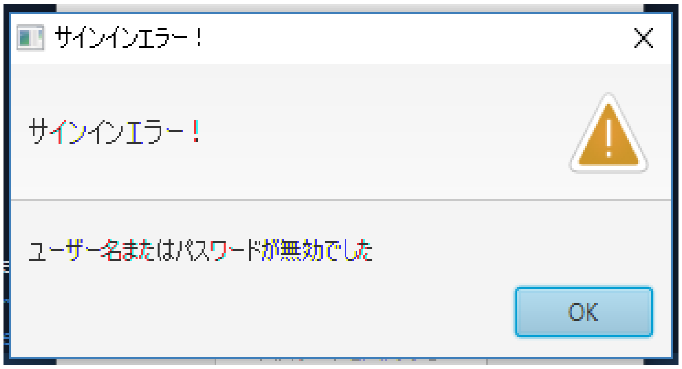




Sign In Error!

The username or password was not valid!



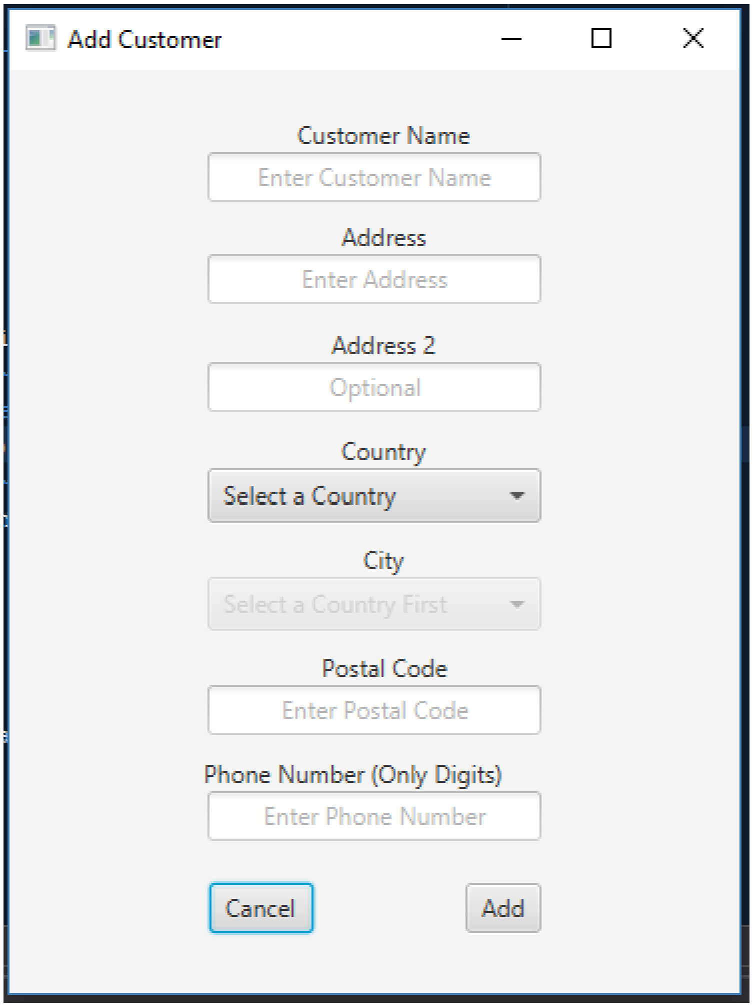


サインインエラー！

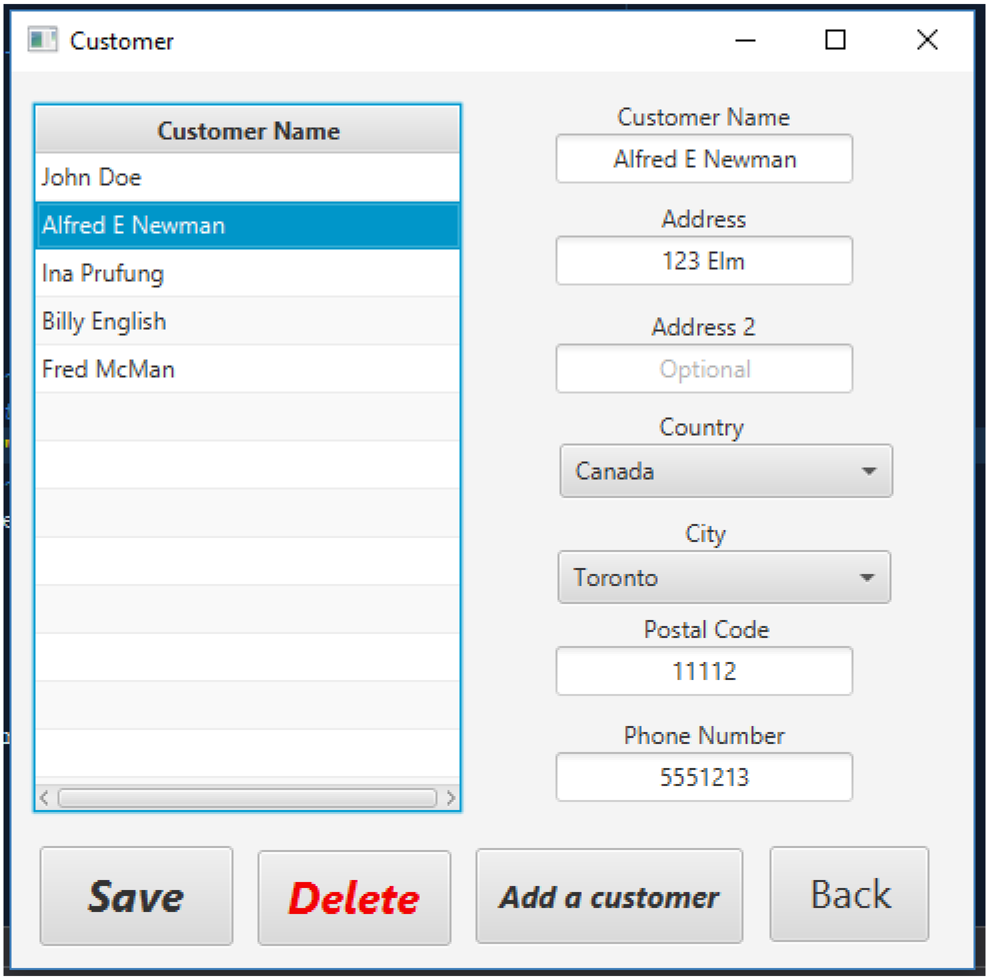
ユーザー名またはパスワードが無効でした

B. Provide the ability to add, update, and delete customer records in the database, including name, address, and phone number.

Add a customer: From the main menu click customer will bring you to the Customer View. Then click add customer button to bring the up the add customer view.



Update and Delete Customer: In the Customer View Select a customer update the data in the fields and click save to Update the customer. Or select a customer and click delete to remove the customer.



Customer

Customer Name
John Doe
Alfred E Newman
Ina Prufung
Billy English
Fred McMan

Customer Name: Alfred E Newman

Address: 123 Elm

Address 2: Optional

Country: Canada

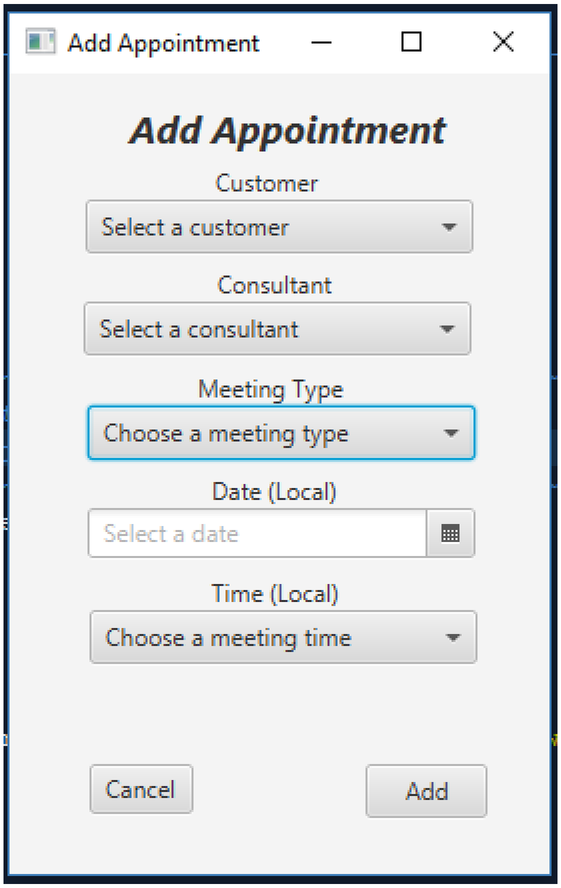
City: Toronto

Postal Code: 11112

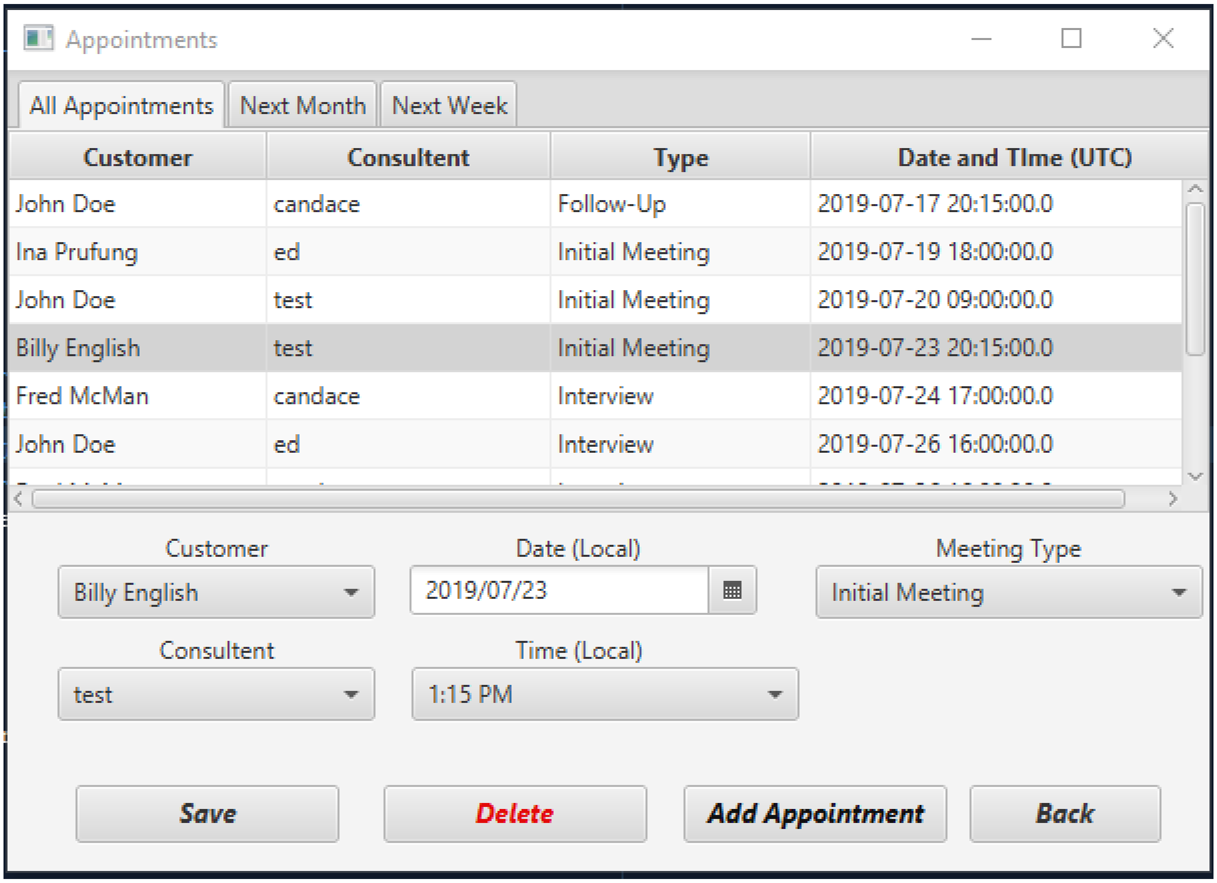
Phone Number: 5551213

C. Provide the ability to add, update, and delete appointments, capturing the type of appointment and a link to the specific customer record in the database.

Add an appointment: From the Main Menu click the appointments button. This will bring you to the appointment view. Then click the Add Appointment button. Date and meeting time are both entered based on users local time.



Update and Delete an appointment: In the appointment view select an appointment and edit the date and click save to update or select an appointment and click delete.



Customer	Consultent	Type	Date and TIme (UTC)
John Doe	candace	Follow-Up	2019-07-17 20:15:00.0
Ina Prufung	ed	Initial Meeting	2019-07-19 18:00:00.0
John Doe	test	Initial Meeting	2019-07-20 09:00:00.0
Billy English	test	Initial Meeting	2019-07-23 20:15:00.0
Fred McMan	candace	Interview	2019-07-24 17:00:00.0
John Doe	ed	Interview	2019-07-26 16:00:00.0

Customer: Billy English

Date (Local): 2019/07/23

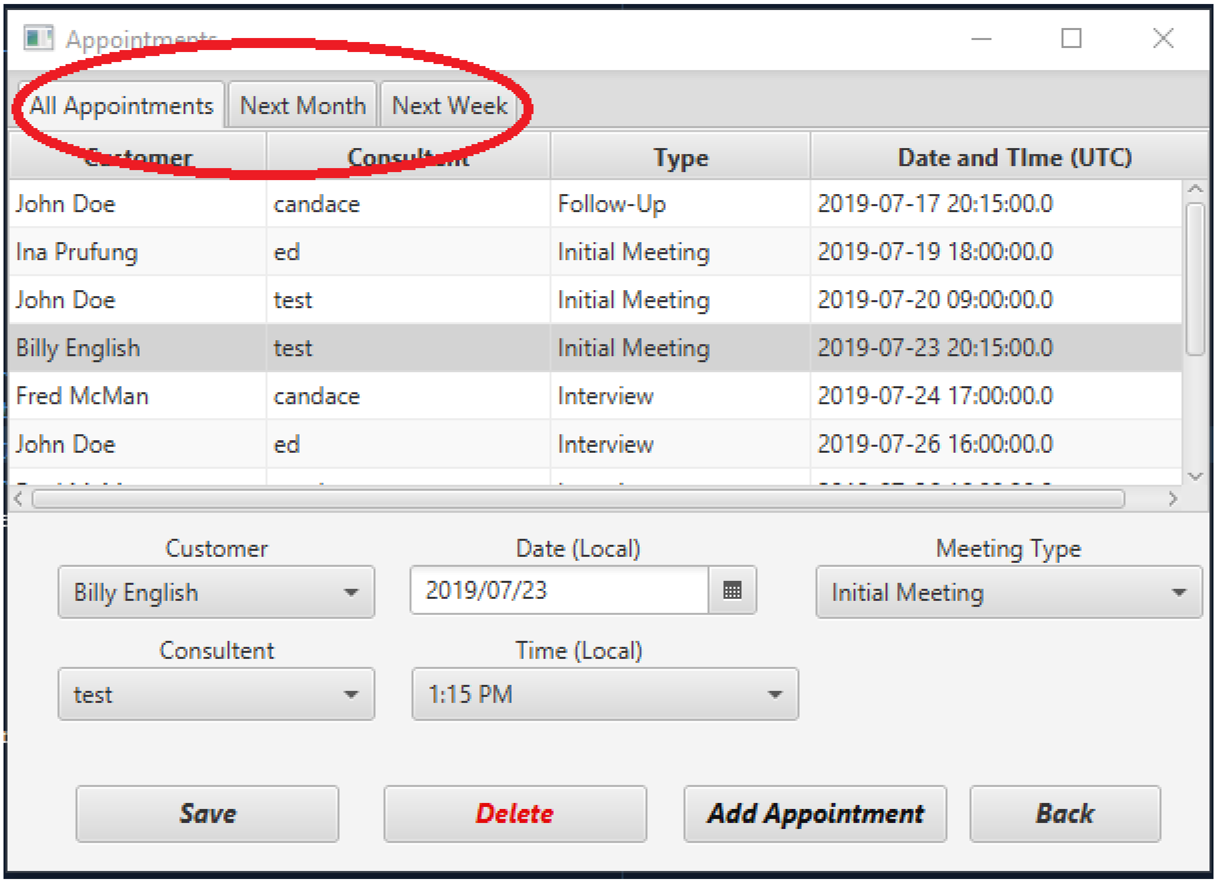
Meeting Type: Initial Meeting

Consultent: test

Time (Local): 1:15 PM

D. Provide the ability to view the calendar by month and by week.

In the top left corner there are three tabs to show all appointment, Appointments in the next month, and next week.



Customer	Consultant	Type	Date and TIme (UTC)
John Doe	candace	Follow-Up	2019-07-17 20:15:00.0
Ina Prufung	ed	Initial Meeting	2019-07-19 18:00:00.0
John Doe	test	Initial Meeting	2019-07-20 09:00:00.0
Billy English	test	Initial Meeting	2019-07-23 20:15:00.0
Fred McMan	candace	Interview	2019-07-24 17:00:00.0
John Doe	ed	Interview	2019-07-26 16:00:00.0

Customer: Billy English

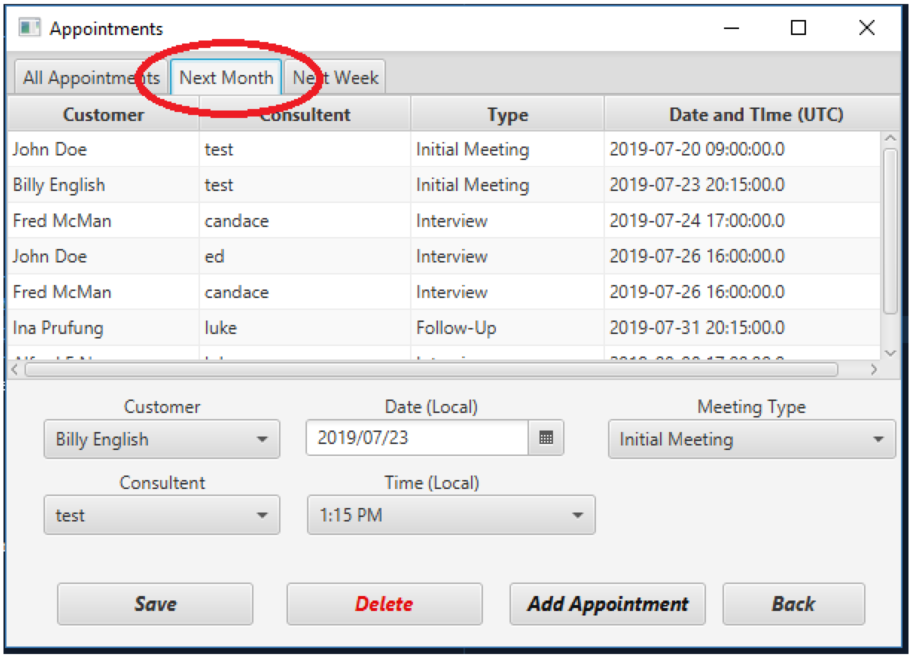
Date (Local): 2019/07/23

Meeting Type: Initial Meeting

Consultent: test

Time (Local): 1:15 PM

By Month:



Customer	Consultent	Type	Date and TIme (UTC)
John Doe	test	Initial Meeting	2019-07-20 09:00:00.0
Billy English	test	Initial Meeting	2019-07-23 20:15:00.0
Fred McMan	candace	Interview	2019-07-24 17:00:00.0
John Doe	ed	Interview	2019-07-26 16:00:00.0
Fred McMan	candace	Interview	2019-07-26 16:00:00.0
Ina Prufung	luke	Follow-Up	2019-07-31 20:15:00.0

Customer: Billy English

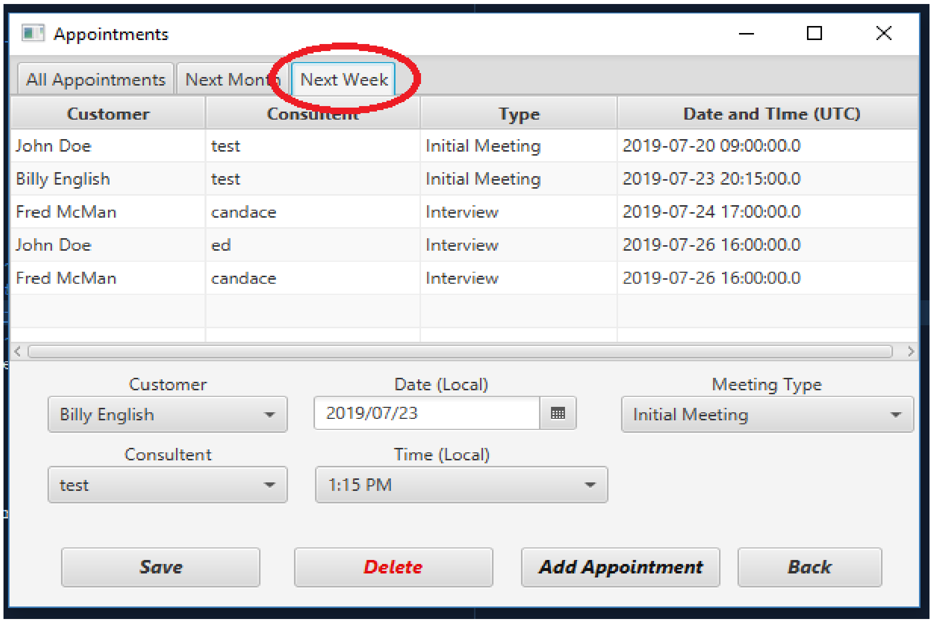
Date (Local): 2019/07/23

Meeting Type: Initial Meeting

Consultent: test

Time (Local): 1:15 PM

By Week:



Customer	Consultent	Type	Date and TIme (UTC)
John Doe	test	Initial Meeting	2019-07-20 09:00:00.0
Billy English	test	Initial Meeting	2019-07-23 20:15:00.0
Fred McMan	candace	Interview	2019-07-24 17:00:00.0
John Doe	ed	Interview	2019-07-26 16:00:00.0
Fred McMan	candace	Interview	2019-07-26 16:00:00.0

Customer: Billy English

Date (Local): 2019/07/23

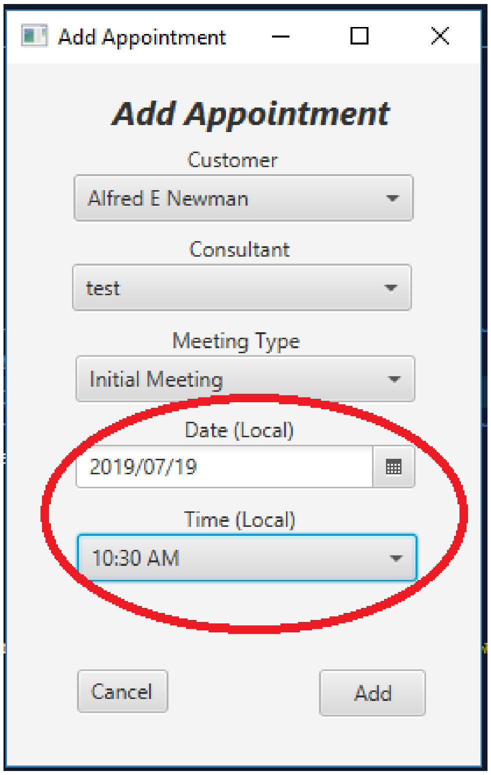
Meeting Type: Initial Meeting

Consultent: test

Time (Local): 1:15 PM

E. Provide the ability to automatically adjust appointment times based on user time zones and daylight-saving time.

The user enters appointment dates and time based on there own date and time. The data is stored in the server in UTC and shown in the fields in the users current date/time.



Add Appointment

Add Appointment

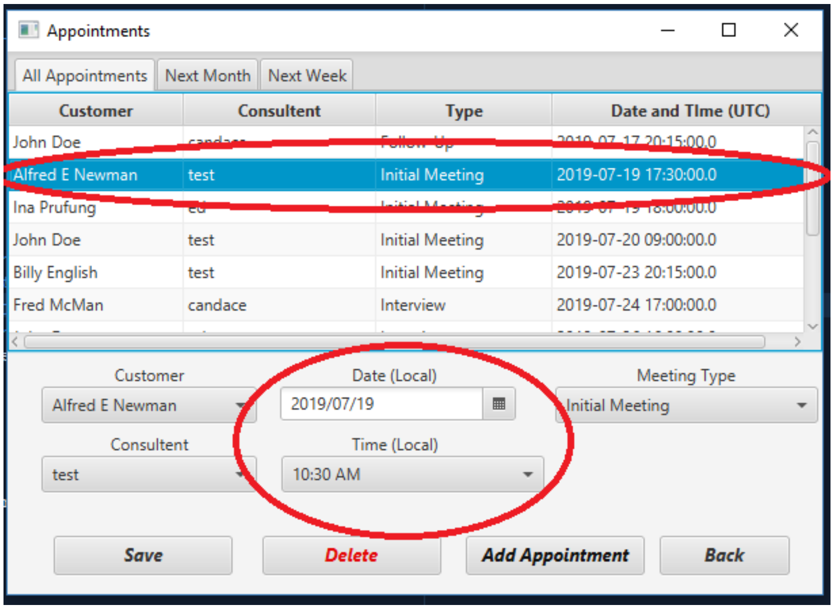
Customer: Alfred E Newman

Consultant: test

Meeting Type: Initial Meeting

Date (Local): 2019/07/19

Time (Local): 10:30 AM



Appointments

Customer	Consultent	Type	Date and TIme (UTC)
John Doe	candace	Follow Up	2019-07-17 20:15:00.0
Alfred E Newman	test	Initial Meeting	2019-07-19 17:30:00.0
Ina Prufung	ed	Initial Meeting	2019-07-19 18:00:00.0
John Doe	test	Initial Meeting	2019-07-20 09:00:00.0
Billy English	test	Initial Meeting	2019-07-23 20:15:00.0
Fred McMan	candace	Interview	2019-07-24 17:00:00.0

Customer: Alfred E Newman

Consultent: test

Date (Local): 2019/07/19

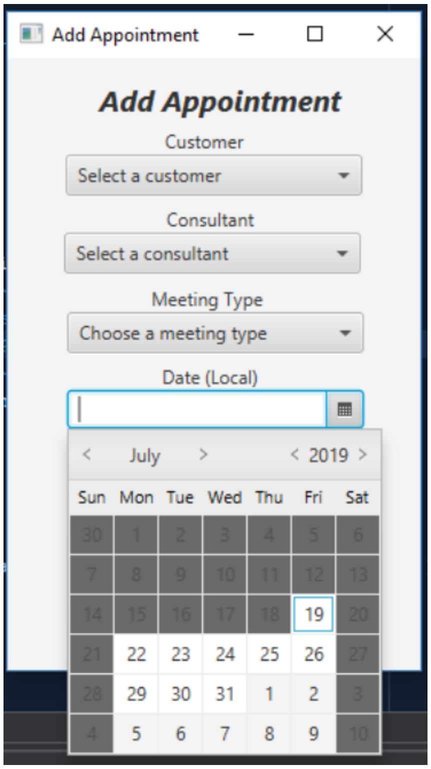
Time (Local): 10:30 AM

Meeting Type: Initial Meeting

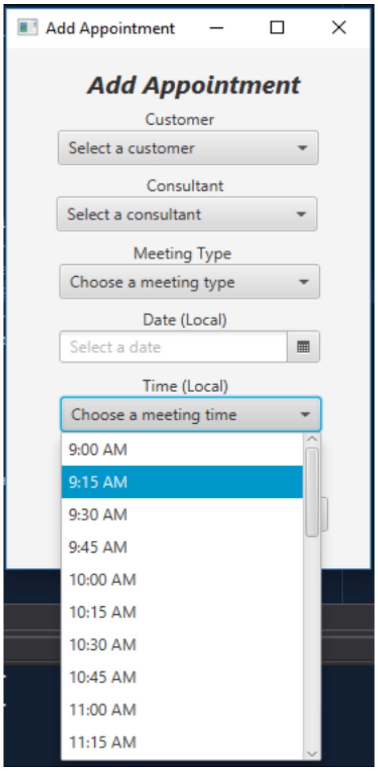
F. Write exception controls to prevent *each* of the following. You may use the same mechanism of exception control more than once, but you must incorporate *at least* two different mechanisms of exception control.

- **scheduling an appointment outside business hours**

The date picker will only allow the user to select date of today and in the future. The time combo box only allows the user to select time with in business hours.

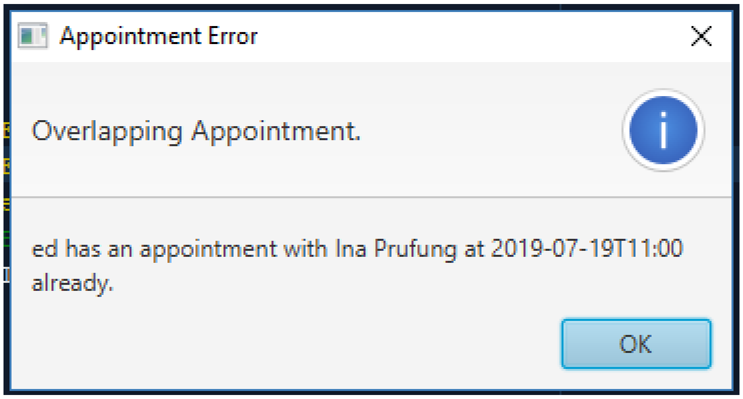


Sun	Mon	Tue	Wed	Thu	Fri	Sat
30	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	1	2	3
4	5	6	7	8	9	10



- **scheduling overlapping appointments**

If there is an overlapping appointment with a consultant an alert when an appointment is updated or created. Nothing is changed when an appointment being updated or added. This uses an try/catch.



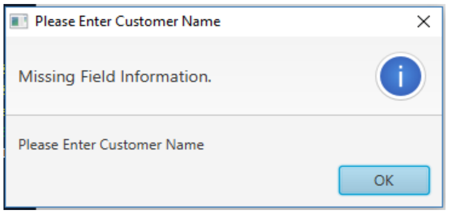
Appointment Error

Overlapping Appointment.

ed has an appointment with Ina Prufung at 2019-07-19T11:00 already.

- **entering nonexistent or invalid customer data**

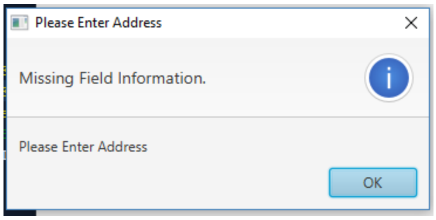
If any fields are left blank besides the address 2 (optional) an alert shows, and nothing is changed. The phone number field only allows numeric key strokes.



Please Enter Customer Name

Missing Field Information.

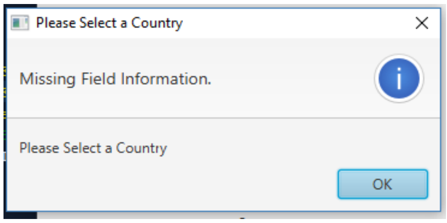
Please Enter Customer Name



Please Enter Address

Missing Field Information.

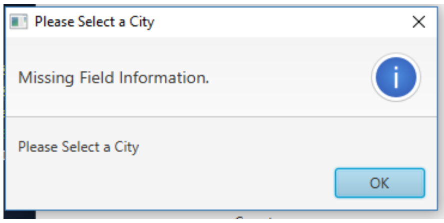
Please Enter Address



Please Select a Country

Missing Field Information.

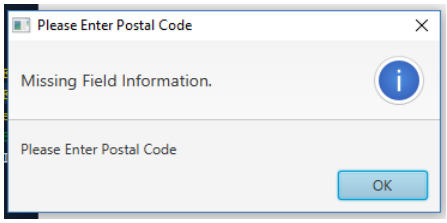
Please Select a Country



Please Select a City

Missing Field Information.

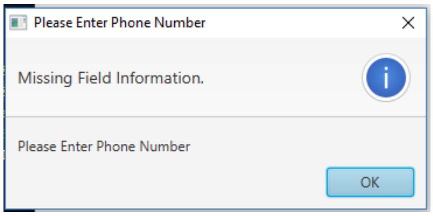
Please Select a City



Please Enter Postal Code

Missing Field Information.

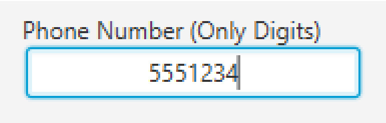
Please Enter Postal Code



Please Enter Phone Number

Missing Field Information.

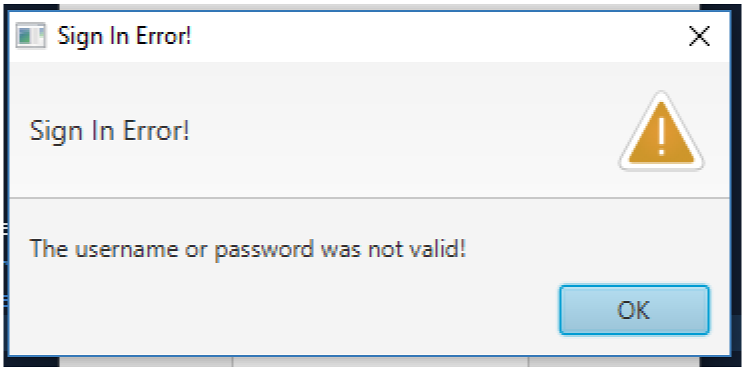
Please Enter Phone Number



Phone Number (Only Digits)

5551234

- **entering an incorrect username and password**
  When an incorrect username and password is entered. This has an throws type of exception.



Sign In Error!

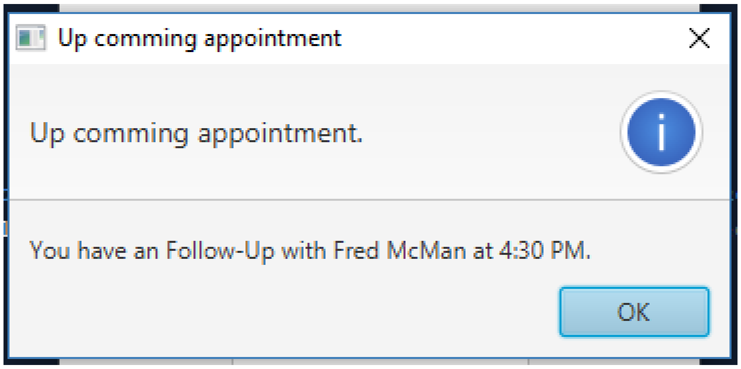
The username or password was not valid!

F. Write two or more lambda expressions to make your program more efficient, justifying the use of each lambda expression with an in-line comment.

1. An add listener lambda expression on line 359 in the file CustomerController.java.
2. A Set Cell Value Factory lambda expression on line 366 in the file CustomerController.java.

H. Write code to provide an alert if there is an appointment within 15 minutes of the user’s log-in.

When a user logs in and there is an appointment related to the user that start within 15 minutes an alert is presented letting the user know what time, the type of meeting, and with who the meeting with.

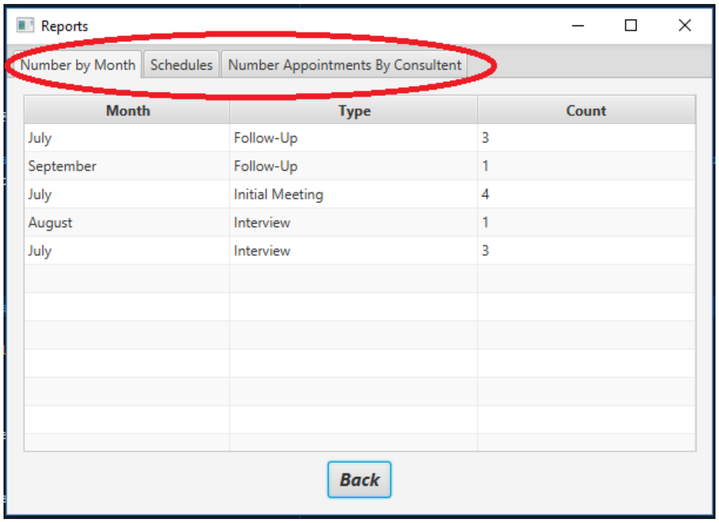


Up comming appointment.

You have an Follow-Up with Fred McMan at 4:30 PM.

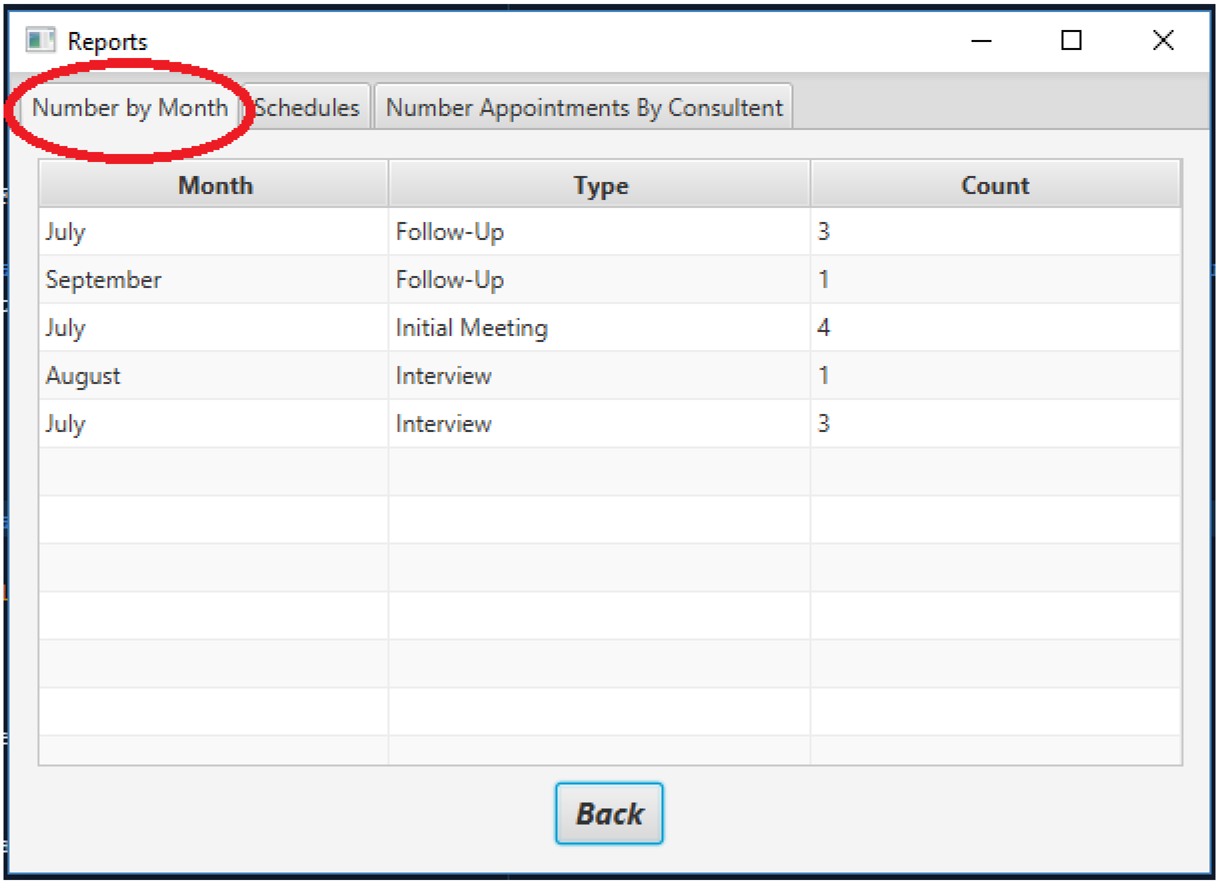
I. Provide the ability to generate *each* of the following reports:

Once again, I use a tab system to show the types of reports.



Month	Type	Count
July	Follow-Up	3
September	Follow-Up	1
July	Initial Meeting	4
August	Interview	1
July	Interview	3

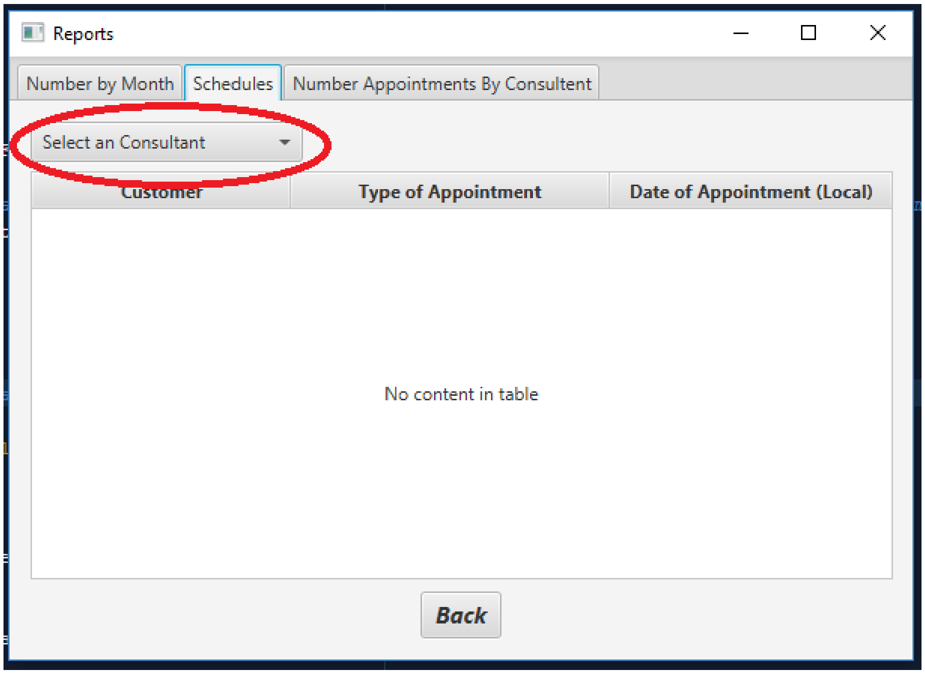
- number of appointment types by month

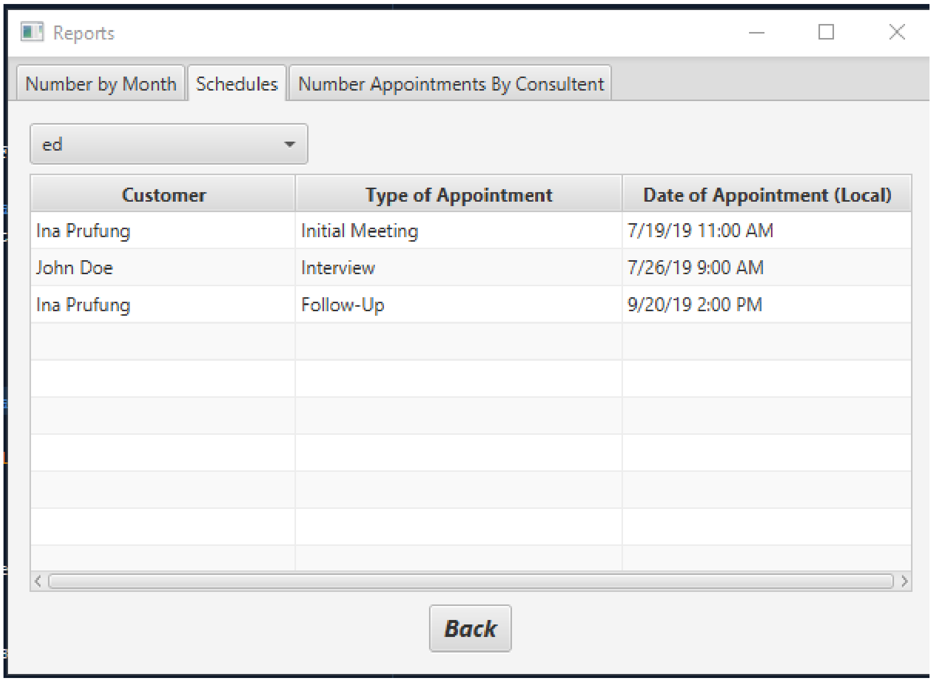


Month	Type	Count
July	Follow-Up	3
September	Follow-Up	1
July	Initial Meeting	4
August	Interview	1
July	Interview	3

- the schedule for each consultant

Select an Consultant from the combo box.

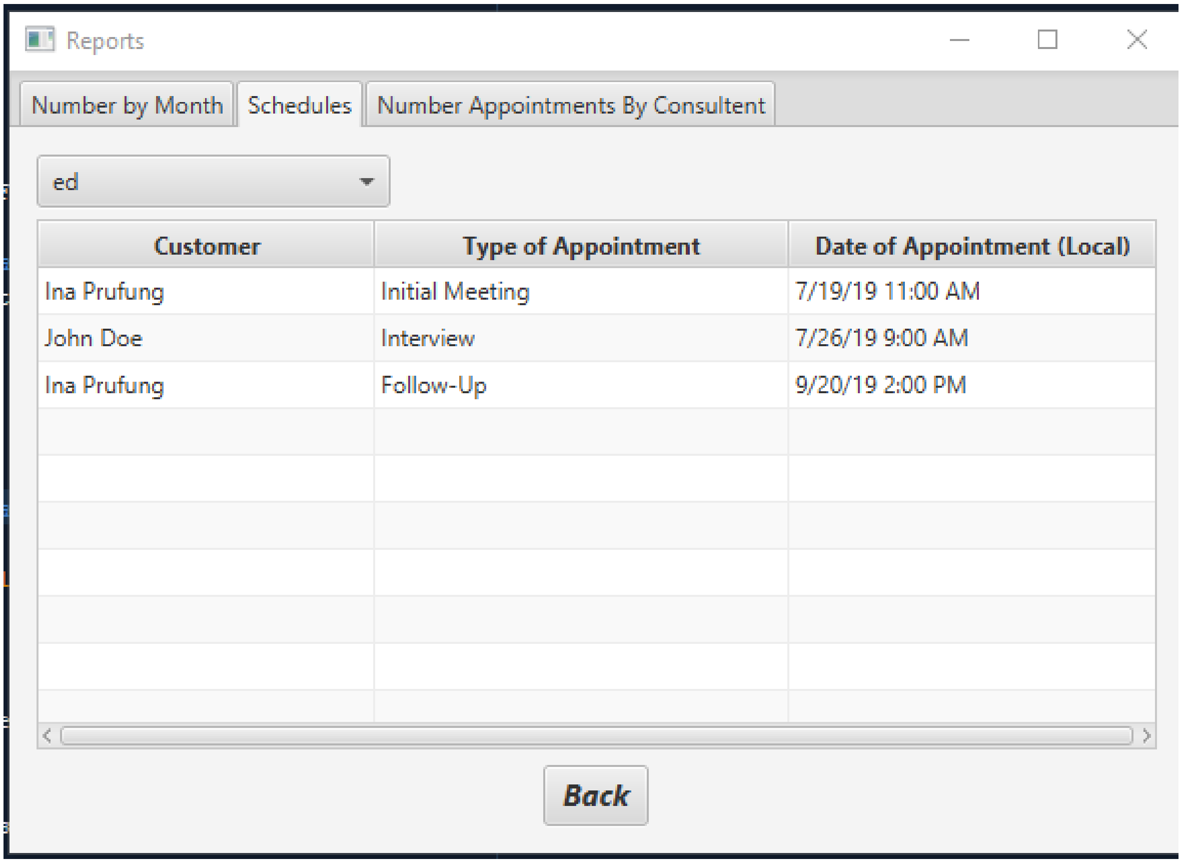




Customer	Type of Appointment	Date of Appointment (Local)
Ina Prufung	Initial Meeting	7/19/19 11:00 AM
John Doe	Interview	7/26/19 9:00 AM
Ina Prufung	Follow-Up	9/20/19 2:00 PM

- one additional report of your choice

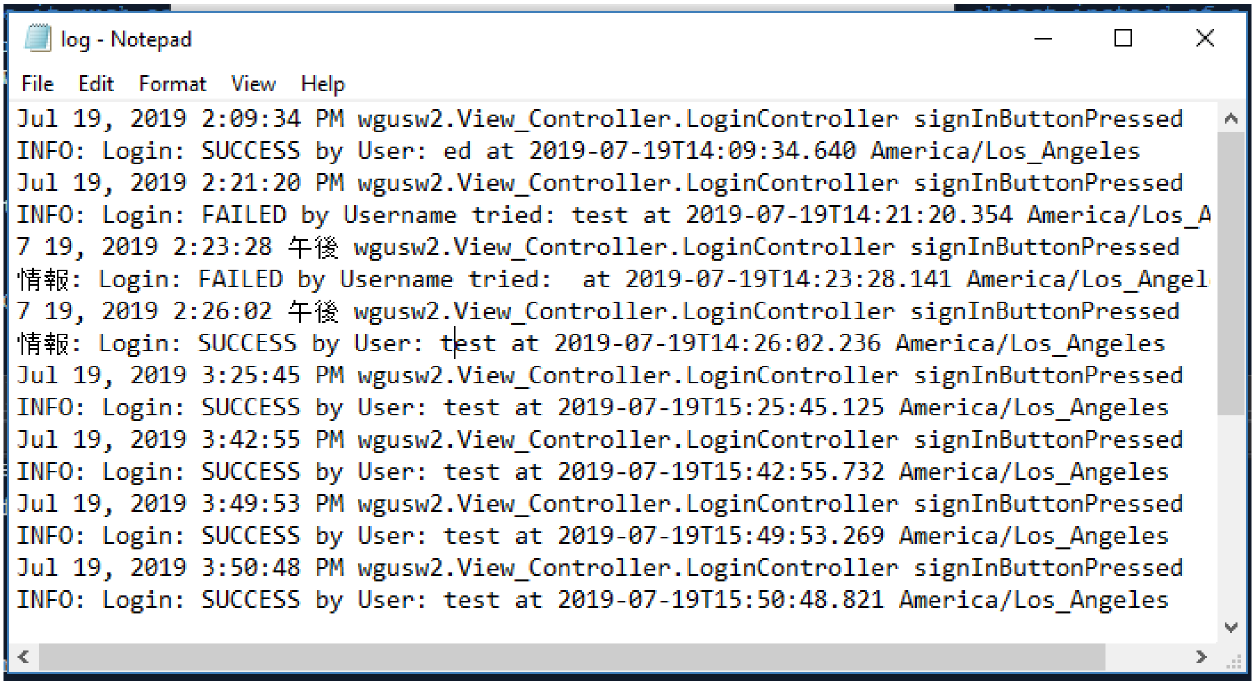
The report for my choice shows the consultants and the total number of meeting they have in the server.



Customer	Type of Appointment	Date of Appointment (Local)
Ina Prufung	Initial Meeting	7/19/19 11:00 AM
John Doe	Interview	7/26/19 9:00 AM
Ina Prufung	Follow-Up	9/20/19 2:00 PM

J. Provide the ability to track user activity by recording timestamps for user log-ins in a .txt file. Each new record should be appended to the log file, if the file already exists.

You can see the file by clicking the Logs button on the bottom left of the Main Menu View.



```
Jul 19, 2019 2:09:34 PM wgusw2.View_Controller.LoginController signInButtonPressed
INFO: Login: SUCCESS by User: ed at 2019-07-19T14:09:34.640 America/Los_Angeles
Jul 19, 2019 2:21:20 PM wgusw2.View_Controller.LoginController signInButtonPressed
INFO: Login: FAILED by Username tried: test at 2019-07-19T14:21:20.354 America/Los_A
7 19, 2019 2:23:28 午後 wgusw2.View_Controller.LoginController signInButtonPressed
情報: Login: FAILED by Username tried:  at 2019-07-19T14:23:28.141 America/Los_Angel
7 19, 2019 2:26:02 午後 wgusw2.View_Controller.LoginController signInButtonPressed
情報: Login: SUCCESS by User: test at 2019-07-19T14:26:02.236 America/Los_Angeles
Jul 19, 2019 3:25:45 PM wgusw2.View_Controller.LoginController signInButtonPressed
INFO: Login: SUCCESS by User: test at 2019-07-19T15:25:45.125 America/Los_Angeles
Jul 19, 2019 3:42:55 PM wgusw2.View_Controller.LoginController signInButtonPressed
INFO: Login: SUCCESS by User: test at 2019-07-19T15:42:55.732 America/Los_Angeles
Jul 19, 2019 3:49:53 PM wgusw2.View_Controller.LoginController signInButtonPressed
INFO: Login: SUCCESS by User: test at 2019-07-19T15:49:53.269 America/Los_Angeles
Jul 19, 2019 3:50:48 PM wgusw2.View_Controller.LoginController signInButtonPressed
INFO: Login: SUCCESS by User: test at 2019-07-19T15:50:48.821 America/Los_Angeles
```