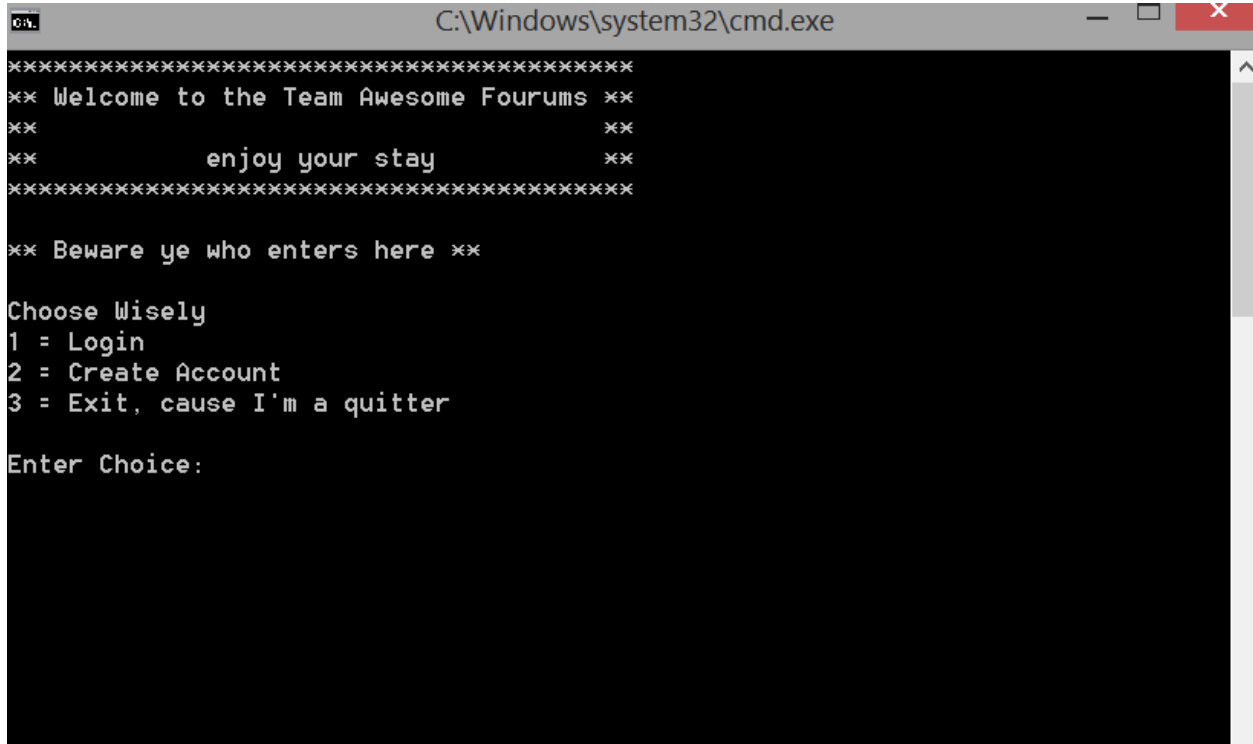## Output Tests

This is a test log for all of the tests that were performed on our database application. The objective of this log is twofold. Firstly, it is to provide the grader/professor/user with some insight as to how the database application is to be used properly. The second objective of this log is to prove that the application was tested exhaustively and that all functions of the application work as advertised. The structure of this test log will be a screen capture of the application as well as necessary .db files followed by a few lines of text explaining what function is being demonstrated.

This screen capture shows the welcome screen that will be provided to the user upon successful compilation and execution of the program

```
Choose Wisely
1 = Login
2 = Create Account
3 = Exit, cause I'm a quitter

Enter Choice: 1

** Lets see who you are **

Enter Username: Admin
Enter Password: 1a

** Welcome to your new home **

Active User: Admin
1 = Account Maintainance
2 = Boards
3 = IMs
4 = Groups
L = Logout
C = Command Line

Enter Choice:
```

Upon choosing option 1, the user will be presented with a login screen similar to the one shown in the example. Here, the user will provide a username and a password which, if the user's account exists, will log them into the bulletin board system.

```
** Beware ye who enters here **

Choose Wisely
1 = Login
2 = Create Account
3 = Exit, cause I'm a quitter

Enter Choice: 1

** Lets see who you are **

Enter Username: unsuccesful
Enter Password: nonexistant

Sorry, that user name and password combination does not exist
** Beware ye who enters here **

Choose Wisely
1 = Login
2 = Create Account
3 = Exit, cause I'm a quitter

Enter Choice:
```

However, upon attempting to use a username/password that does not exist, the user will be taken back to the main menu.

```
Choose Wisely
1 = Login
2 = Create Account
3 = Exit, cause I'm a quitter

Enter Choice: 2

A wise choice

** Howdy new friend **

Enter Username: Newuser
Enter Password: Example

** Welcome to your new home **

Active User: Newuser
1 = Account Maintainance
2 = Boards
3 = IMs
4 = Groups
L = Logout

Enter Choice:
```
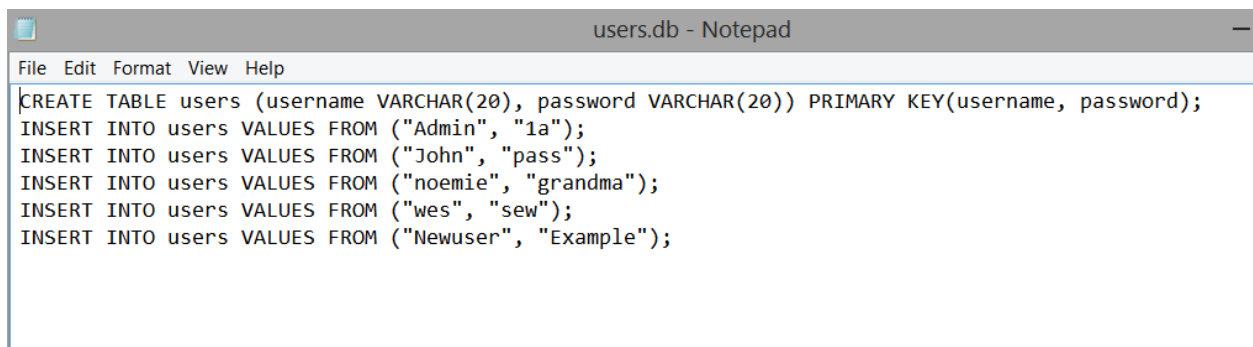
If the user does not have an account, he or she can choose option 2. Upon choosing, he or she will be prompted to give a new username and password to be added to the list of users.

```
users.db - Notepad                                                          —
File  Edit  Format  View  Help
CREATE TABLE users (username VARCHAR(20), password VARCHAR(20)) PRIMARY KEY(username, password);
INSERT INTO users VALUES FROM ("Admin", "1a");
INSERT INTO users VALUES FROM ("John", "pass");
INSERT INTO users VALUES FROM ("noemie", "grandma");
INSERT INTO users VALUES FROM ("wes", "sew");
INSERT INTO users VALUES FROM ("Newuser", "Example");
```

As you can see, the user has been added to the "users.db" file automatically

```
Choose Wisely
1 = Login
2 = Create Account
3 = Exit, cause I'm a quitter

Enter Choice: 2

A wise choice

** Howdy new friend **

Enter Username: Admin
Enter Password: 1a
Sorry, that username is taken
** Beware ye who enters here **

Choose Wisely
1 = Login
2 = Create Account
3 = Exit, cause I'm a quitter

Enter Choice:
```

However, should the user attempt to create an account name that has already been taken, the account will not be created and the user will be taken back to the main screen.

```
** Welcome to your new home **

Active User: Newuser
1 = Account Maintainance
2 = Boards
3 = IMs
4 = Groups
L = Logout

Enter Choice: 1

** Account Maintainance **

1 = Change Password
2 = Delete Account
M = Return to Main Menu
L = Logout

Enter Choice: 2

Are you sure you want to delete your account?
1 = Yes
2 = No! Please let me stay!
1
Sad to see you go :'(
```
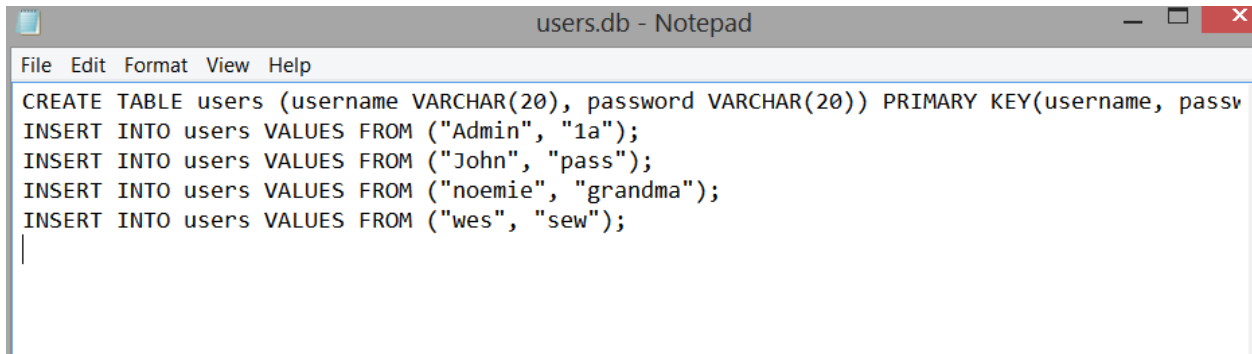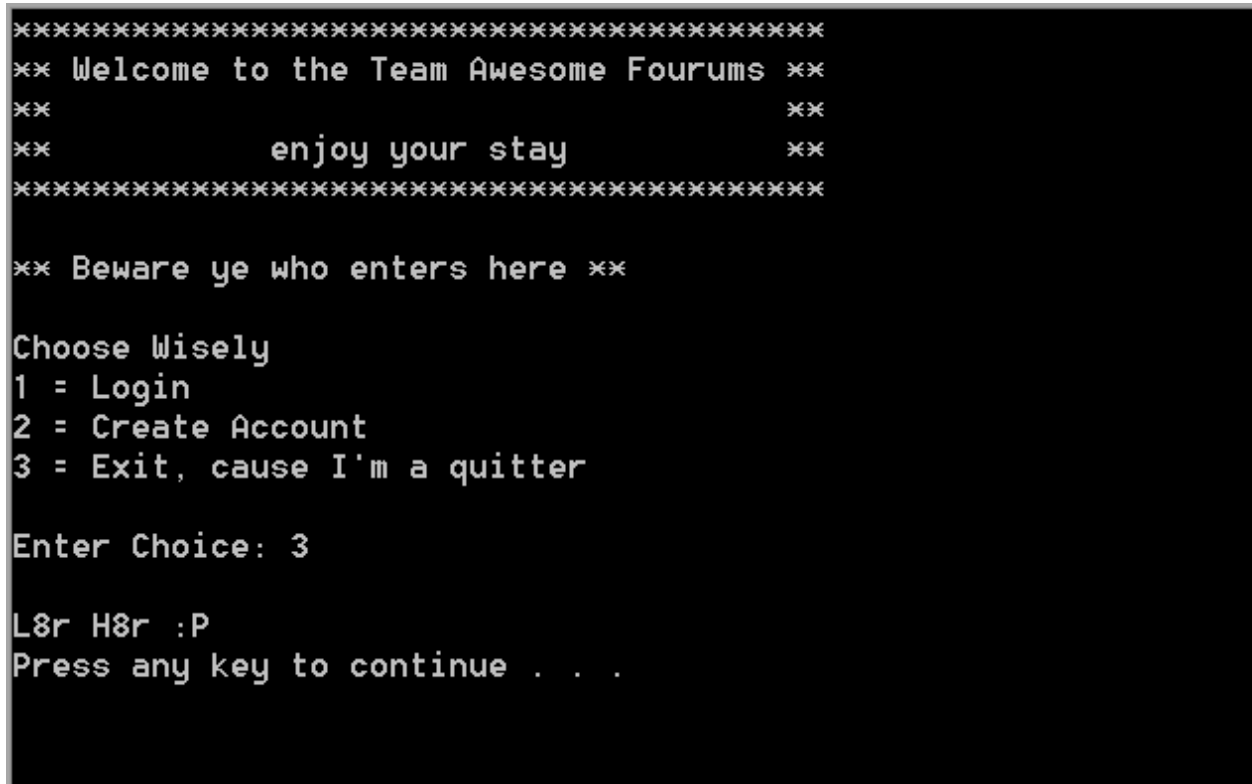
The user can also delete their account using the "Account Maintenance" tool. As shown above, when a user attempts to delete their account, they are asked if they are sure, and then the account is deleted. However, if the user is an admin, the delete option is not provided.

```
users.db - Notepad                                            —  □   ✕
File  Edit  Format  View  Help
CREATE TABLE users (username VARCHAR(20), password VARCHAR(20)) PRIMARY KEY(username, passw
INSERT INTO users VALUES FROM ("Admin", "1a");
INSERT INTO users VALUES FROM ("John", "pass");
INSERT INTO users VALUES FROM ("noemie", "grandma");
INSERT INTO users VALUES FROM ("wes", "sew");
|
```

As you can see in the above picture, the user has been removed from the users.db file

```
**********************************************
** Welcome to the Team Awesome Fourums **
**                                      **
**           enjoy your stay            **
**********************************************

** Beware ye who enters here **

Choose Wisely
1 = Login
2 = Create Account
3 = Exit, cause I'm a quitter

Enter Choice: 3

L8r H8r :P
Press any key to continue . . .
```

A user can also simply exit the program which closes the program and prompts the "Press any key to continue" syntax characteristic of Windows Visual Studio.

```
** Welcome to your new home **

Active User: Admin
1 = Account Maintainance
2 = Boards
3 = IMs
4 = Groups
L = Logout
C = Command Line

Enter Choice:
```

When an Admin logs in, they are given several options: They can manage their account, add to
or delete boards, IMs, and Groups, or they can Logout or access the command line.

```
** Welcome to your new home **

Active User: Admin
1 = Account Maintainance
2 = Boards
3 = IMs
4 = Groups
L = Logout
C = Command Line

Enter Choice: 1

** Account Maintainance **

1 = Change Password
M = Return to Main Menu
L = Logout

Enter Choice:
```

The admin account is only allowed to change their password or logout, as they are not allowed to
delete their account.

```
** Account Maintainance **

1 = Change Password
M = Return to Main Menu
L = Logout

Enter Choice: m

** Welcome to your new home **

Active User: Admin
1 = Account Maintainance
2 = Boards
3 = IMs
4 = Groups
L = Logout
C = Command Line

Enter Choice: 2

** Available Boards **
    Board Name   Active Topics

**Other Options**
A = Add Board
D = Delete Board
M = Main Menu
L = Logout

Enter Choice:
```

When an Admin account chooses "Boards", the admin is shown the available boards and can delete or add to the boards. Also shown in this screen capture is the fact that the letter options are not case sensitive. As shown, the user can enter either "M" or "m" and both will take the user to the main menu.

```
** Available Boards **
    Board Name  Active Topics

**Other Options**
A = Add Board
D = Delete Board
M = Main Menu
L = Logout

Enter Choice: A

Enter the name of the new board: Ninjas
Board Added!

** Available Boards **
    Board Name  Active Topics
1 = Ninjas      0

**Other Options**
A = Add Board
D = Delete Board
M = Main Menu
L = Logout

Enter Choice: A

Enter the name of the new board: Pirates
Board Added!

** Available Boards **
    Board Name  Active Topics
1 = Ninjas      0
2 = Pirates     0

**Other Options**
A = Add Board
D = Delete Board
M = Main Menu
L = Logout

Enter Choice:
```

In this screen capture, it is shown that an admin can add a new board by entering a name. The board will then be created and the list of boards will be shown to the admin. This is completed twice for the sake of demonstration.

```
Active User: Admin
1 = Account Maintainance
2 = Boards
3 = IMs
4 = Groups
L = Logout
C = Command Line

Enter Choice: 2

** Available Boards **
    Board Name   Active Topics
1 = Pirates        0

**Other Options**
A = Add Board
D = Delete Board
M = Main Menu
L = Logout

Enter Choice: d
    Board Name   Active Topics
1 = Pirates        0
Enter Delete Choice: 1
Are you sure you want to delete this board?
1 = Yes
2 = No
1
Bye Board!
** Available Boards **
    Board Name   Active Topics

**Other Options**
A = Add Board
D = Delete Board
M = Main Menu
L = Logout

Enter Choice:
```

As seen here, the admin can delete boards using the "delete board" command. This will remove the board and show the admin the new list of boards.

```
Active User: Admin
1 = Account Maintainance
2 = Boards
3 = IMs
4 = Groups
L = Logout
C = Command Line

Enter Choice: 3

** Available Messages **
User Name                   Message
John     hey
John     pickles
noemie   test

** Options **
N = New Message
D = Delete Message
M = Main Menu
L = Logout

Enter Choice: N

Enter the username of the message recipient: wes
What would you like to say? Press enter to send:
Hi wes!
Message Sent!

** Available Messages **
User Name                   Message
John     hey
John     pickles
noemie   test
wes      Hi wes!

** Options **
N = New Message
D = Delete Message
M = Main Menu
L = Logout

Enter Choice:
```

This screen capture shows the Admin creating a new message and sending it to the "wes" account. After creating the message, the list displays all messages in the system.

```
** Welcome to your new home **

Active User: wes
1 = Account Maintainance
2 = Boards
3 = IMs
4 = Groups
L = Logout

Enter Choice: 3

** Available Messages **
User Name                 Message
Admin    Hi wes!

** Options **
N = New Message
D = Delete Message
M = Main Menu
L = Logout

Enter Choice:
```

As shown above, when we log into the account "wes", the user is only shown the messages addressed to that account. Therefore, the user can only the message that the admin sent him or her in the previous screen capture.

```
Enter the name of the new group: PiratesGuild
Group Added!

** Available Groups **
    Group Name   Active Users
1 = PiratesGuild        0

**Other Options**
A = Add Group
D = Delete Group
M = Main Menu
L = Logout

Enter Choice: A

Enter the name of the new group: NinjaDojo
Group Added!

** Available Groups **
    Group Name   Active Users
1 = PiratesGuild        0
2 = NinjaDojo    0

**Other Options**
A = Add Group
D = Delete Group
M = Main Menu
L = Logout
```

An admin can create groups using the "add group" function as shown above.

```
Active User: Admin
1 = Account Maintainance
2 = Boards
3 = IMs
4 = Groups
L = Logout
C = Command Line

Enter Choice: 4

** Available Groups **
    Group Name  Active Users
1 = PiratesGuild        0
2 = NinjaDojo   0

**Other Options**
A = Add Group
D = Delete Group
M = Main Menu
L = Logout

Enter Choice: d
    Group Name  Active Users
1 = PiratesGuild        0
2 = NinjaDojo   0
Enter Delete Choice: 2
Are you sure you want to delete this group?
1 = Yes
2 = No
1
Bye Group!
** Available Groups **
    Group Name  Active Users
1 = PiratesGuild        0

**Other Options**
A = Add Group
D = Delete Group
M = Main Menu
L = Logout

Enter Choice:
```

An admin can also delete groups using the "delete group" function as shown above.

```
Enter Choice: M
** Welcome to your new home **

Active User: Admin
1 = Account Maintainance
2 = Boards
3 = IMs
4 = Groups
L = Logout
C = Command Line

Enter Choice: C

Enter QUIT to leave the shell
Database >
```

An admin can also access the command line prompt, which will allow the admin to directly add to, delete from, and manipulate databases in the style required for the previous submission.

User accounts are essentially the same as Admin accounts, but they can only view boards and groups. However, they can send Instant messages but not use the command line.

Also, within the boards users can add topics to boards which will be displayed upon accessing the boards. When accessing a group, the user can join or leave the group.