I/We realize that the penalty for turning in work that is not my own, or assisting others in doing so, can range from an "F" in the class to dismissal from Trinity University. I realize that it is a violation of academic integrity to share any portion of this lab with any person (outside my 3321 team & professor)!

Print Name _____ Time Required = _____.____ Hrs.

Signature _____ (pledged)

Visual Studio Windows Form Application #4
Individual Assignment
30 Points

_____ {Initial/Pledge} I have completed all of steps/tasks in **Visual Studio Windows Form Application #4.**

_____ {Initial/Pledge} When in View Mode, my Personal Info tab looks much like the form above. I have transfer buttons to Check-Out Items & Pay Fines.

Add Mode

```
User Sub-System Written By Dr. Tom Hicks
Save   Cancel  ============
Personal Info  Notes  Check-Out Records

                                                          ID

        First  [                    ]    MI [  ]   Last  [                    ]

     Username  [                    ]      Password  [                    ]

       E-Mail  [                              ]

   Home Phone  (___) ___-____          Cell Phone  (___) ___-____

University ID  [_____]                   Dept  [ --- Select Major --- ▼ ]

       Gender  ○ Female   ○ Male     Administrator  ☐
```

_____   {Initial/Pledge} When I push the Add button, my Personal Info tab looks much like the form above. The only buttons available are Save & Cancel

```
User Sub-System Written By Dr. Tom Hicks
Save   Cancel  ============
Personal Info  Notes  Check-Out Records

    First              MI       Last                        ID

   [                                                          ]
```

_____   {Initial/Pledge} When I push the Add button, my Notes tab looks much like the form above.
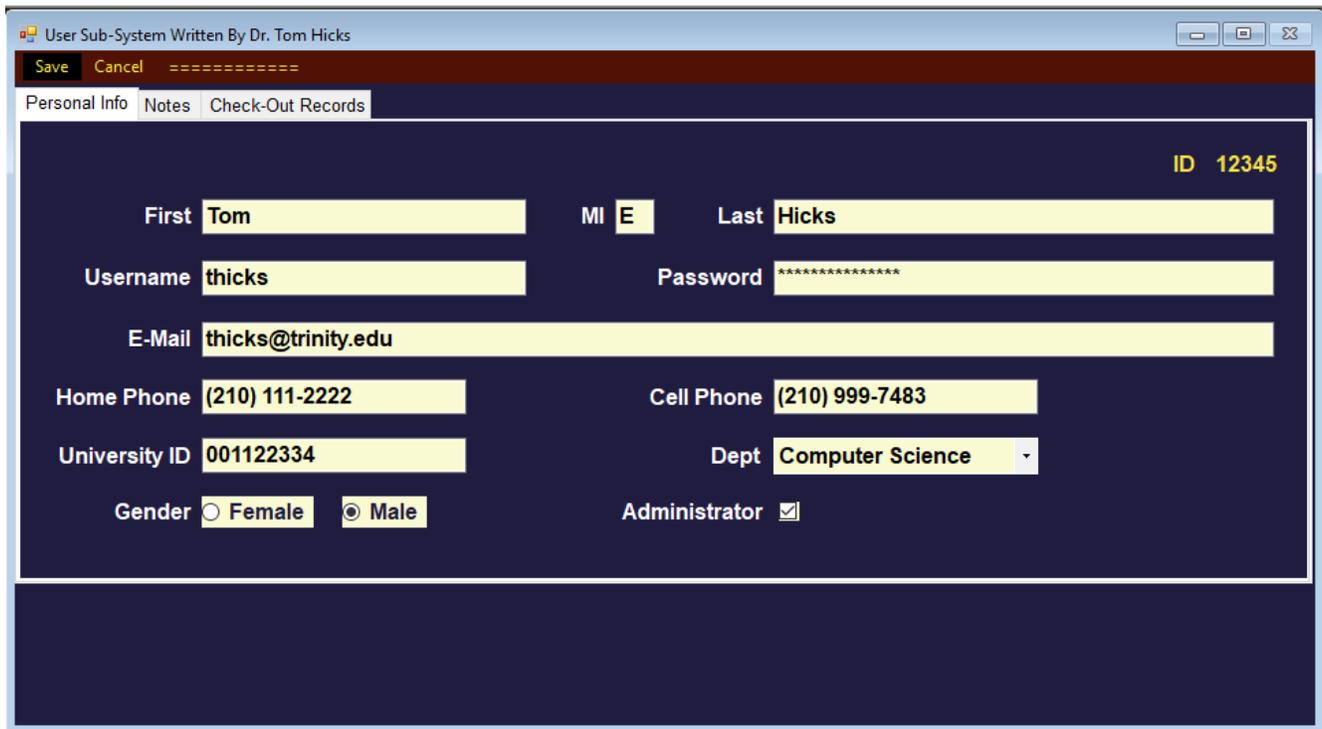
_____   {Initial/Pledge} When I push the Add button, my Check-Out Records tab looks much like the form above.

Edit Mode

_____   {Initial/Pledge} When I push the Edit button, my Personal Info tab looks much like the form above. The only buttons available are Save & Cancel

_____ {Initial/Pledge} When I push the Edit button, my Notes tab looks much like the form above.

Tutorial

1]   _____ One of the Guidelines, in the tutorial, states that all of your Data Entry controls should be noticeably different in Edit & Add Mode➔ changing the background to something Sli_?_ different is an easy alternative ➔ do not make it abrasive.

2-4]   Why is it a good idea to hide all of the navigation buttons when in Add or Edit mode?

_____

_____

_____

Import Database

1]   Reload the **UniversityLibrary.sql** database.

Book

Field	Type	Null	Key	Default	Extra
id	int(11)	NO	PRI	NULL	auto_increment
title	varchar(180)	YES	MUL	NULL	
author	varchar(105)	YES		NULL	
price	double	YES	MUL	NULL	
genreid	int(11)	YES	MUL	NULL	
deleted	char(1)	YES		NULL	

User

Field	Type	Null	Key	Default	Extra
ID	int(11)	NO	PRI	NULL	auto_increment
First	varchar(15)	YES			
MI	char(1)	YES		NULL	
Last	varchar(20)	YES			
FullName	varchar(30)	YES			
DeptID	int(11)	YES		O	
GenderID	int(11)	YES		NULL	
UniversityID	bigint(11)	YES		NULL	
Email	varchar(40)	YES			
UserName	varchar(15)	YES			
Password	varchar(15)	YES		trinity	
Administrator	char(1)	YES		NULL	
HomePhone	varchar(14)	YES		NULL	
CellPhone	varchar(14)	YES		NULL	
Notes	varchar(255)	YES			
Deleted	char(1)	YES		F	

CheckOut

Field	Type	Null	Key	Default	Extra
id	int(11)	NO	PRI	NULL	auto_increment
userid	int(11)	YES		NULL	
dayout	int(11)	YES		NULL	
monthout	int(11)	YES		NULL	
yearout	int(11)	YES		NULL	
dateno	int(11)	YES		NULL	
deleted	char(1)	YES		NULL	

CODetail

```
+---------+--------------+------+-----+---------+----------------+
| Field   | Type         | Null | Key | Default | Extra          |
+---------+--------------+------+-----+---------+----------------+
| id      | int(11)      | NO   | PRI | NULL    | auto_increment |
| title   | varchar(180) | YES  | MUL | NULL    |                |
| author  | varchar(105) | YES  |     | NULL    |                |
| price   | double       | YES  | MUL | NULL    |                |
| genreid | int(11)      | YES  | MUL | NULL    |                |
| deleted | char(1)      | YES  |     | NULL    |                |
+---------+--------------+------+-----+---------+----------------+
```

UserType

```
+----------+-------------+------+-----+---------+----------------+
| Field    | Type        | Null | Key | Default | Extra          |
+----------+-------------+------+-----+---------+----------------+
| id       | int(11)     | NO   | PRI | NULL    | auto_increment |
| usertype | varchar(50) | YES  |     | NULL    |                |
| deleted  | char(1)     | YES  |     | F       |                |
+----------+-------------+------+-----+---------+----------------+
```

Concatenate

1]   Write a query that will display the results of combining all of the **First** and **Last** names of all **User** →
TomHicks

2]   _____ Write
the results from executing the query below:
SELECT CONCAT (UserName, Password)
FROM User
WHERE ID = 100;

3]   _____ Write
the results from executing the query below:
SELECT CONCAT ("One", "=", "Two");

Left & Right

1] _____ Write
the results from executing the query below:
SELECT Left ("Trinity University", 4);

2] _____ Write
the results from executing the query below:
SELECT Right ("Trinity University", 4);

Update

1]   Write a query that replaces the **first** name, of the record whose **ID** is **6**, with **Dan**.

2]   Write a query that replaces the **passwd** of all of the **User** with **'trinity'**;

3]   Write a query that replaces the **UserNames** of all of the **User** with blank (").

4]   Write a query that replaces the **UserNames** of all of the **User** with the first-last (dash between);

5]   Write a query that replaces the **FullName** of all of the **User** with the **Last**, **First** (comma blank between);

6]   If you executed any of the statements above, please reload the **UniversityLibrary.sql** database.

UPPER   UCASE

1]   _____ Write the results from executing the query below:
```
SELECT UCASE ("Trinity");
```

2]   _____ Write the results from executing the query below:
```
SELECT UPPER ("University");
```

3]   Write a query that displays the first and last name of all **User** using upper case letters.

LOWER   LCASE

1]   _____ Write the results from executing the query below:
```
SELECT LCASE ("Trinity");
```

2]   _____ Write the results from executing the query below:
```
SELECT UPPER ("University");
```

3]   Write a query that displays the first and last name of all **User** using lower case letters.

4]   Write a query that replaces the **EMail** of all of the **User** with blank (").

5]   Write a query that replaces the **EMail** of all of the **User** with the **UserName** plus **@trinity.edu** (all lower case). The **UserName** may be no more than 8 characters in length.

ASCII   CHAR

1]   _____ Write
the output from the following query:
```
SELECT ASCII('A'), ASCII('C'), CHAR(65), CHAR(67);
```

FLOOR

1]   _____ Write
the output from the following query:
```
SELECT FLOOR(12.3), FLOOR(12.49), FLOOR(12.5), FLOOR(12.51), FLOOR(12.9);
```

CEILING

1]   _____ Write
the output from the following query:
```
SELECT CEILING (12.3), CEILING (12.49), CEILING (12.5), CEILING (12.51), CEILING (12.9);
```

RAND

1]   Rand returns a random number that is in the range   _____   <= X < _____

2]   _____ Write a
query that returns a random number in the range 1 to 5

3]   _____ Write a
query that returns a random number in the range 1 to 100

4]   _____ Write a
query that returns a random number in the range 10 to 20

5]   _____ Write a
query that returns a random number in the range -3 to +3

6-8] Write a query that replaces the **Phone** of all of the **User** with some random value in the range (210) 999-0000 to
(210) 999-9999

9-11] Write a query that replaces the **Passwd** of all of the **User** with some random 5 character value in the range AAAAA
        to ZZZZZ

MID   SUBSTRING

1]   _____ Write
      the results from executing the query below:
```
SELECT MID("Trinity", 4, 2);
```

2]   _____ Write
      the results from executing the query below:
```
SELECT MID("UNIVERSITY", 5, 3);
```

3]   Write a query that displays the fourth & fifth letters of the Last names of all User. Do Not Use **Substring**

4]   Write a query that displays the fourth & fifth letters of the Last names of all User. Do Not Use **Mid**

DELETE

1]   Write a query that deletes all of the records in the **User** Table. Hint: There Is No *****

2]   Write the MySQL command which will delete the **Book** whose **ID** is **10**.

3]   Write the MySQL command which will delete all of the **Books** whose **ID** is an even number.

4]   How do you undelete a record?

_____

_____

5]   If you executed any of the statements above, please reload the **UniversityLibrary.sql** database.

6]   Why is there a Deleted flag in Book and User?

_____

_____

SUM

1]   If you were to buy one copy of each of the books, what would it cost? Write the query for the calculation.

2]   If you were to add all of the User ID's, what would be the total? Write the query for the calculation.

MIN

1]   Write the query that would reveal the cost of the least expensive book.

2]   Write the query that would reveal the lowest User ID.

3-5]   Write the query that would reveal all of the information about the least expensive book(s).

MAX

1]   Write the query that would reveal the cost of the most expensive book.

2]   Write the query that would reveal the highest User ID.

3-5]   Write the query that would reveal all of the information about the most expensive book(s).

AVG

1]   Write the query that would reveal the average price of a book.

2]   Write the query that would reveal the average user ID.

LENGTH

1]   _____ Write
the results from executing the query below:
SELECT LENGTH("Tom"), LENGTH("Dick"), LENGTH("Harry");

```
+-----+---------+---------------+
| ID  | First   | LENGTH(First) |
+-----+---------+---------------+
| 101 | Donald  |             6 |
| 100 | Sarah   |             5 |
|  40 | Victoria|             8 |
|  42 | Matthew |             7 |
|  43 | Joseph  |             6 |
|   1 | Dillon  |             6 |
|  85 | Benjamin|             8 |
|   4 | Lamonte |             7 |
|  32 | Thoai   |             5 |
|  46 | Craig   |             5 |
+-----+---------+---------------+
```

2]   Write the query that displays the ID, First, and no characters in the first name for the first 10
users in order by Full Name. Output above.

Filling A Variable/Alias

1]   Write a query that displays all information of the about those **User** whose **Last** name begins with an **H**.

2]   Write a query that fills a variable, called **NoH**, with the number of **User** whose **Last** name begins with and **H**.

3]   Write the query that fills a variable, called **MaxPrice**, with the cost of the most expensive book.

4]   _____ {T/F} Filling variables with the results of a Query is needed for both Web Applications and Stand Alone Database Applications. Hint: True

---

What To Turn In

1]   **All pages of this lab with questions completed.**

2]   **Screen Capture stapled To The Back Of This Lab.**

- - - - - - - - - - **No Lab Is Complete Until Both Are Complete** - - - - - - - - - -

1]   You sign & submit the Pledge form at the top of this lab!. No Lab Will Be Considered Complete until this is done. Late penalties will continue to accrue until the pledge form is submitted.
   a)   Sign & Pledge
   b)   Record the amount of time you think you spent on this lab
   c)   Staple all pages of this lab. Fold in half length-wise (like a hot-dog). Put your name on the outside. Place it on the professor desk before the beginning of lecture on the day it is due. The penalty for late homework will not exceed 25% off per day.
   d)   Short answer questions must be hand written, unless the professor has granted an exception for physical reasons.

2]   Place all programming code associated with this program, if any, in the Professor's Code Drop Box or on the Virtual System as directed.
   I do not accept programs by mail; do not submit labs via email!