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CSIS 3475 – Data Structures & Algorithms – Section 071

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Test Cases Performed

**Project – Creating a Database**

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# T1. Login as Administrator

1. User Name = *admin*
2. Password = *admin*
3. Click the Login button
4. Result: Success

Shows the Welcome screen with information about the user connected in the fields on the bottom

## T1.1. New Query – Create Database “company”

1. Click Query >> New Query menu
2. Type the command to create the database “company”

*CREATE DATABASE company*

1. Click the Run Query button
2. Result: Success >> *Database company created!*

Creates a new folder “company” into “Databases” folder

## T1.2. New Query – Connect Database “company”

1. Click Query >> New Query menu
2. Type the command to connect to the database “company”

*CONNECT company*

1. Click the Run Query button
2. Result: Success >> *Connected to company*

Shows the database name in the field on the bottom

## T1.3. New Query – Show Database

1. Click Query >> New Query menu
2. Type the command to show the connected database

*SHOW DATABASE*

1. Click the Run Query button
2. Result: Success >> *You are connected to company database*

## T1.4. New Query – Create Table “employee”

1. Click Query >> New Query menu
2. Type the command to create the table “employee”

*CREATE TABLE employee (ID INT,FName TEXT,LName TEXT)*

1. Click the Run Query button
2. Result: Success >> *Table employee created in the database company*

Creates a new text file “employee.txt” into “company” folder

## T1.5. New Query – Insert into table “employee”

1. Click Query >> New Query menu
2. Type the command to insert the employee “Sarah Smith”, with ID = 1

*INSERT INTO employee (ID, FName, LName) VALUES (1, Sarah, Smith)*

1. Click the Run Query button
2. Result: Success >> *Query executed successfully!*

Creates a new line in the text file “employee.txt” into “company” folder

## T1.6. New Query – Select all fields from table “employee”

1. Click Query >> New Query menu
2. Type the command to select all fields (\*) from table employee

*SELECT \* FROM employee*

1. Click the Run Query button
2. Result: Success >>

*ID|FNAME|LNAME|*

*1|Sarah|Smith|*

*2|John|Smith|*

*3|Bob|Fullegar|*

*4|Lyn|Keiling|*

## T1.7. New Query – Delete table “employee”

1. Click Query >> New Query menu
2. Type the command to delete table employee

*DELETE TABLE employee*

1. Click the Run Query button
2. Result: Success >> *Table employee deleted*

The text file “employee.txt” is deleted from “company” folder

## T1.8. New Query – Delete database “company”

1. Click Query >> New Query menu
2. Type the command to delete database company

*DELETE DATABASE company*

1. Click the Run Query button
2. Result: Success >> *Database company deleted!*

The “company” folder is deleted from “Databases” folder

## T1.9. New Query – Create user

1. Click Query >> New Query menu
2. Type the command to insert user “dbuser” with password “123”, and type 2 = user

*INSERT INTO tblUser (ID, Username, Password, Usertype) VALUES (4, dbuser, 123, 2)*

1. Click the Run Query button
2. Result: Success >> *Query executed successfully!*

Creates a new line in the text file “tblUser.txt” into “master” folder

# T2. Login as User

1. User Name = *dbuser*
2. Password = *123*
3. Click the Login button
4. Result: Success

Shows the Welcome screen with information about the user connected in the fields on the bottom

## T2.1. New Query – Create Database “company”

1. Click Query >> New Query menu
2. Type the command to create the database “company”

*CREATE DATABASE company*

1. Click the Run Query button
2. Result: Failed >> *Only adminstrators are allowed to create new database. Please, contact the administrator*

## T2.2. New Query – Connect Database “company”

1. Click Query >> New Query menu
2. Type the command to connect to the database “company”

*CONNECT company*

1. Click the Run Query button
2. Result: Success >> *Connected to company*

Shows the database name in the field on the bottom

## T2.3. New Query – Show Database

1. Click Query >> New Query menu
2. Type the command to show the connected database

*SHOW DATABASE*

1. Click the Run Query button
2. Result: Success >> *You are connected to company database*

## T2.4. New Query – Create Table “employee”

1. Click Query >> New Query menu
2. Type the command to create the table “employee”

*CREATE TABLE employee (ID INT,FName TEXT,LName TEXT)*

1. Click the Run Query button
2. Result: Success >> *Table employee created in the database company*

Creates a new text file “employee.txt” into “company” folder

## T2.5. New Query – Insert into table “employee”

1. Click Query >> New Query menu
2. Type the command to insert the employee “Sarah Smith”, with ID = 1

*INSERT INTO employee (ID, FName, LName) VALUES (1, Sarah, Smith)*

1. Click the Run Query button
2. Result: Success >> *Query executed successfully!*

Creates a new line in the text file “employee.txt” into “company” folder

### T2.5.1. New Query – Insert only ID and first name into table “employee” and check if the last name will be included as NULL

1. Click Query >> New Query menu
2. Type the command to insert the employee “Bob”, with ID = 2 and without last name

*INSERT INTO employee (ID, FName) VALUES (2, Bob)*

1. Click the Run Query button
2. Result: Success >> *Query executed successfully!*

Creates a new line in the text file “employee.txt” into “company” folder, with NULL in the last name field

### T2.5.2. New Query – Try to insert columns into table “employee” with wrong name

1. Click Query >> New Query menu
2. Type the command to insert the employee with columns ID, FName, LastName (wrong column name)

*INSERT INTO employee (ID, FName, LastName) VALUES (3, John, Smith)*

1. Click the Run Query button
2. Result: Failed >> *Invalid column. Please check your command.*

### T2.5.3. New Query - Try to insert values with the wrong data type into table “employee”

1. Click Query >> New Query menu
2. Type the command to insert the employee “John Smith” with ID = “test” (wrong data type)

*INSERT INTO employee (ID, FName, LName) VALUES (test, John, Smith)*

1. Click the Run Query button
2. Result: Failed >> *Invalid data type.*

### T2.5.4. New Query - Try to insert columns with a different order into the table “employee”

1. Click Query >> New Query menu
2. Type the command to insert the employee “John Smith” with ID = 3, writing the columns in a different order: FName, LName, ID

*INSERT INTO employee (FName, LName, ID) VALUES (John, Smith, 3)*

1. Click the Run Query button
2. Result: Success >> *Query executed successfully!*

Creates a new line in the text file “employee.txt” into “company” folder, with the values corresponding to the correct fields

## T2.6. New Query – Select all fields from table “employee”

1. Click Query >> New Query menu
2. Type the command to select all fields (\*) from table employee

*SELECT \* FROM employee*

1. Click the Run Query button
2. Result: Success >>

*ID|FNAME|LNAME|*

*1|Sarah|Smith|*

*2|Bob|NULL|*

*3|John|Smith|*

### T2.6.1. New Query – Select specific fields from table “employee”

1. Click Query >> New Query menu
2. Type the command to select the first and last name from table employee

*SELECT FName, LName FROM employee*

1. Click the Run Query button
2. Result: Success >>

*FNAME|LNAME|*

*Sarah|Smith|*

*Bob|NULL|*

*John|Smith|*

### T2.6.2. New Query – Select from table “employee” with filter

1. Click Query >> New Query menu
2. Type the command to select from table employee where ID = 1

*SELECT \* FROM employee WHERE ID = 1*

1. Click the Run Query button
2. Result: Success >>

*ID|FNAME|LNAME|*

*1|Sarah|Smith|*

## T2.7. New Query – Delete table “employee”

1. Click Query >> New Query menu
2. Type the command to delete table employee

*DELETE TABLE employee*

1. Click the Run Query button
2. Result: Success >> *Table employee deleted*

The text file “employee.txt” is deleted from “company” folder

## T2.8. New Query – Delete database “company” (fail)

1. Click Query >> New Query menu
2. Type the command to delete database company

*DELETE DATABASE company*

1. Click the Run Query button
2. Result: Failed >> *Only adminstrators are allowed to delete a database. Please, contact the administrator*

## T2.9. New Query – Create user (fail)

1. Click Query >> New Query menu
2. Type the command to insert user “dbuser” with password “123”, and type 2 = user

*INSERT INTO tblUser (ID, Username, Password, Usertype) VALUES (4, dbuser, 123, 2)*

1. Click the Run Query button
2. Result: Success >> *Only adminstrators are allowed to create new users. Please, contact the administrator*

Creates a new line in the text file “tblUser.txt” into “master” folder