De La Salle University Dasmariñas

College of Engineering Architecture and Technology

Engineering Department

(1st Semester 2024 – 2025 Midterm)

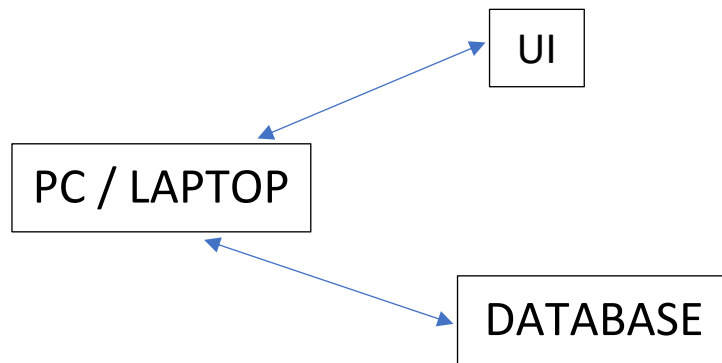**T-CPET411LA – Embedded System Laboratory**

Experiment # 1

Name: Sean Ulric C. Montano

CYS: CPE41

Date: 9/26/2024

Block Diagram:

Database:

- In table form
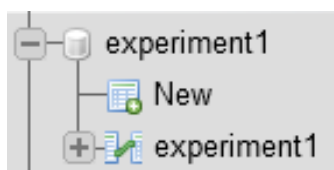- Include the database name, table name and the variables

Example

Database Name: experiment1	
Table Name: experiment1	
Variables	Data Type
ID	Int(11)
FIRST_NAME	Varchar(100)
MIDDLE_NAME	Varchar(100)
LAST_NAME	Varchar(100)
NICKNAME	Varchar(100)

a. Database Structure:

b. Database List

c. Table Structure

Server: 127.0.0.1 » Database: experiment1 » Table: experiment1

Browse | Structure | SQL | Search | Insert | Export | Import | Privileges | Operations

Table structure | Relation view

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	ID 🔑	int(11)			No	None		AUTO_INCREMENT	Change ⊖ Drop More
2	FIRST_NAME	varchar(100)	latin1_swedish_ci		No	None			Change ⊖ Drop More
3	MIDDLE_NAME	varchar(100)	latin1_swedish_ci		No	None			Change ⊖ Drop More
4	LAST_NAME	varchar(100)	latin1_swedish_ci		No	None			Change ⊖ Drop More
5	NICKNAME	varchar(100)	latin1_swedish_ci		No	None			Change ⊖ Drop More

d. Table Browse:

Server: 127.0.0.1 » Database: experiment1 » Table: experiment1

Browse | Structure | SQL | Search | Insert | Export | Import

✔ Showing rows 0 - 2 (3 total, Query took 0.0006 seconds.)

SELECT * FROM `experiment1`

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

☐ Show all | Number of rows: 25 ▾ | Filter rows: Search this table | Sort by key:

Extra options

←T→			ID	FIRST_NAME	MIDDLE_NAME	LAST_NAME	NICKNAME
☐ Edit 🗐 Copy ⊖ Delete			1	Sean Ulric	Casama	Montano	Sean
☐ Edit 🗐 Copy ⊖ Delete			2	Sean	Ulric	Montano	Sean
☐ Edit 🗐 Copy ⊖ Delete			3	vsdfvdfs	gfrdsgdr	weffeeew	ryhrth

Graphical User Interface:

T-CPET411LA Experiment 1 — ☐ ✕

T-CPET411LA EMBEDDED SYSTEMS LAB
Experiment #1

Status: **Disconnected**

💾 Connect to Database   ➕ Add to Database

First Name

Middle Name

Last Name

Nickname

Clear Entries

Sean Ulric C. Montano | CPE41

Visual Studio Program:

Form 1 Program

```vb
Imports MySql.Data.MySqlClient
Public Class Form1
    Dim connection As MySqlConnection
    Dim cmd As MySqlCommand
    Dim database_name, table_name As New String("experiment1")

    Private Sub Form1_Load(sender As Object, e As EventArgs) Handles MyBase.Load
        connection = New MySqlConnection
        connection.ConnectionString = "server=localhost;username=root;password=;database='" & database_name & "'"
    End Sub

    Private Sub Button1_Click(sender As Object, e As EventArgs) Handles Button1.Click
        Try
            If connection.State = ConnectionState.Closed Then
                connection.Open()
                ConnectionStatus.Text = "Connected"
                ConnectionStatus.ForeColor = Color.Green
                Button1.Text = "Disconnect to Database"
            Else
                connection.Close()
                ConnectionStatus.Text = "Disconnected"
                ConnectionStatus.ForeColor = Color.DarkRed
                Button1.Text = "Connect to Database"
            End If

        Catch ex As Exception
            MsgBox(ex.Message)
        End Try
    End Sub

    Private Sub Button2_Click(sender As Object, e As EventArgs) Handles Button2.Click
        Try
            If (connection.State = ConnectionState.Closed) Then 'Check if connection is closed when user tries to add a record
                MsgBox("Please connect to the database first", vbExclamation, Title:="Warning")
            ElseIf String.IsNullOrEmpty(TextBox1.Text) Or 'Check if any of the text box is empty when user tries to add a record
                    String.IsNullOrEmpty(TextBox2.Text) Or
                    String.IsNullOrEmpty(TextBox3.Text) Or
                    String.IsNullOrEmpty(TextBox4.Text) Then
                MsgBox("Please fill in all input fields", vbExclamation, Title:="Warning")
            Else
                If connection.State = ConnectionState.Closed Then
                    connection.Open()
                End If

                cmd = New MySqlCommand("INSERT INTO " & table_name & " (FIRST_NAME, MIDDLE_NAME, LAST_NAME, NICKNAME)
                    values (@FIRST_NAME, @MIDDLE_NAME, @LAST_NAME, @NICKNAME)", connection)
                cmd.Parameters.AddWithValue("@FIRST_NAME", TextBox1.Text)
                cmd.Parameters.AddWithValue("@MIDDLE_NAME", TextBox2.Text)
                cmd.Parameters.AddWithValue("@LAST_NAME", TextBox3.Text)
                cmd.Parameters.AddWithValue("@NICKNAME", TextBox4.Text)
                Dim i As Integer = cmd.ExecuteNonQuery
                If i > 0 Then
                    MsgBox("Successfully Added Record To " & table_name & "", vbInformation, Title:="Success")
                Else
                    MsgBox("Failed to Add Record To " & table_name & "", vbExclamation, Title:="Error")
                End If
                TextBox1.Clear()
                TextBox2.Clear()
                TextBox3.Clear()
                TextBox4.Clear()
            End If
        Catch ex As Exception
            MsgBox(ex.Message)
        End Try
    End Sub

    Private Sub Button3_Click(sender As Object, e As EventArgs) Handles Button3.Click 'Clear all the text box
        TextBox1.Clear()
        TextBox2.Clear()
        TextBox3.Clear()
        TextBox4.Clear()
    End Sub
End Class
```