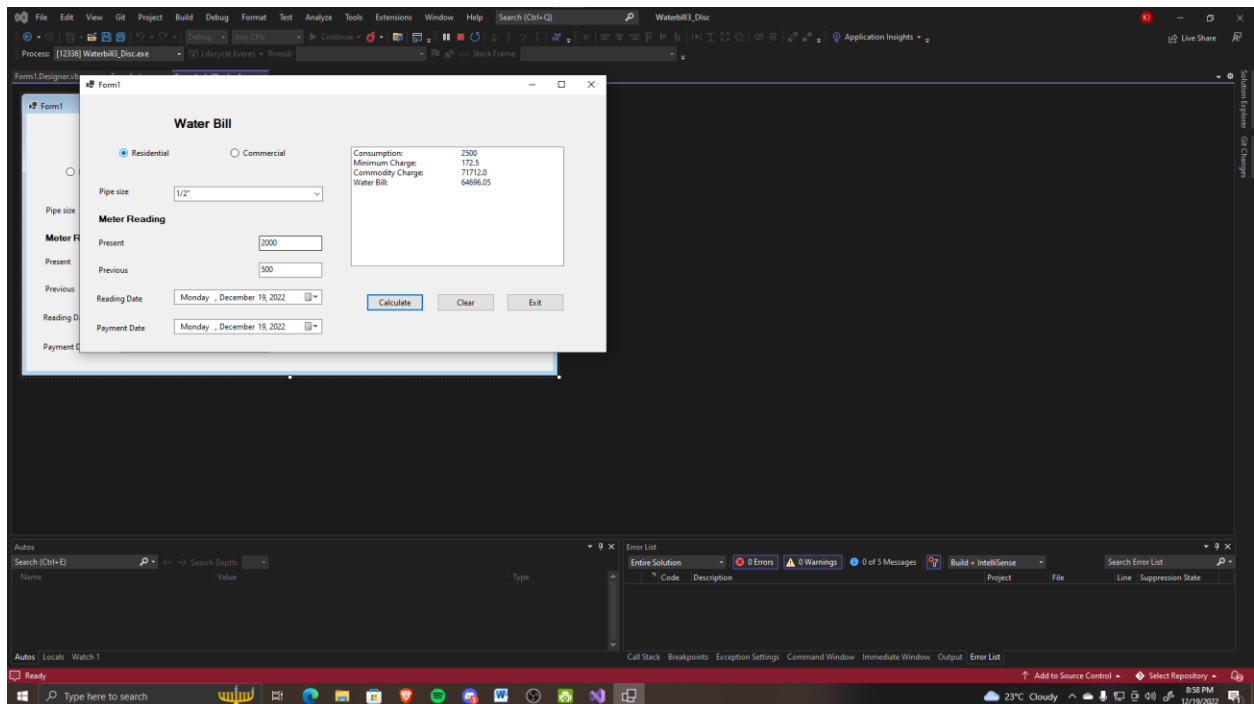


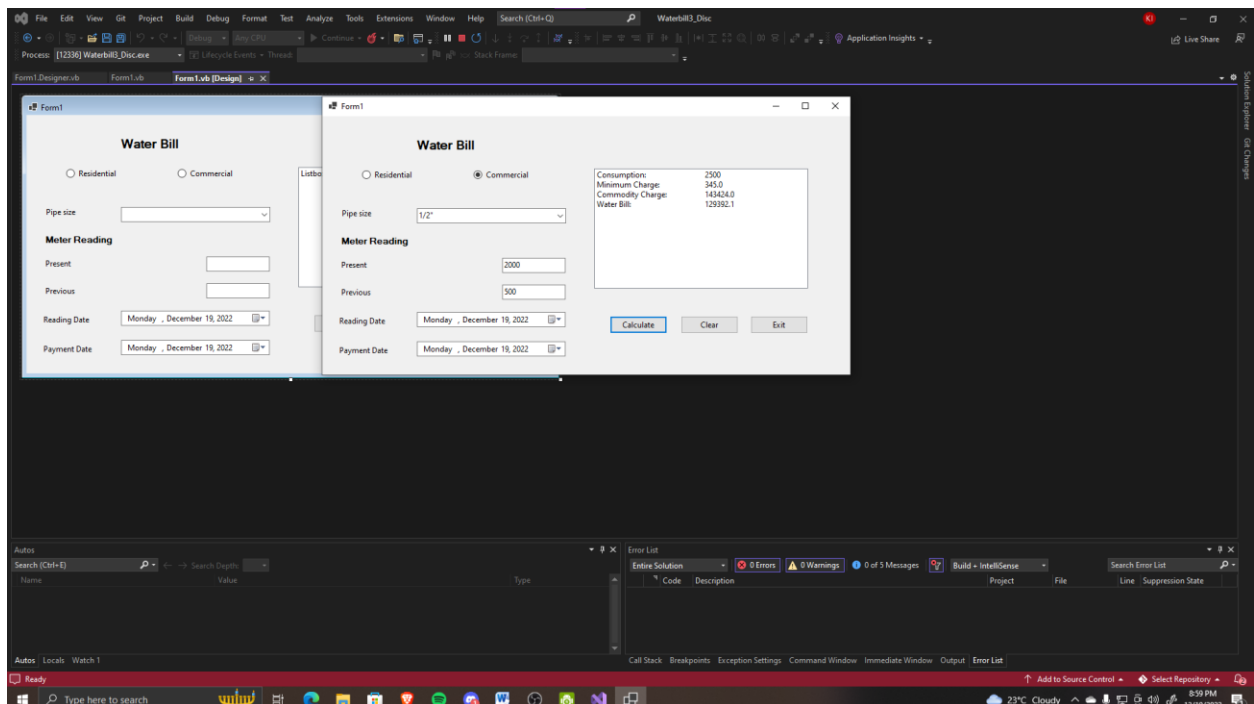
Ilao, Karl Reyven

## BSIT 4A

### Residential



### Commercial



## Source Code

```
Public Class Form1
    Function calculate_discount(ByVal total_bill As Decimal) As Decimal
        Dim reading = DateTimePicker1.Value
        Dim payment = DateTimePicker2.Value
        Dim diff = payment.Subtract(reading)
        Dim day_interval = Math.Round(diff.TotalDays)
        Dim result As Decimal
        If day_interval < 0 Then
            result = -1
        ElseIf 0 <= day_interval And day_interval <= 10 Then
            result = total_bill - (total_bill * 0.1)
        ElseIf 11 <= day_interval And day_interval <= 15 Then
            result = total_bill - (total_bill * 0.05)
        Else
            result = total_bill
        End If

        Return result
    End Function
    Function pipe_size_category(ByRef val As String) As Decimal
        Dim min_value As Decimal
        If val = "1/2" Then
            min_value = 172.5
        ElseIf val = "3/4" Then
            min_value = 276.0
        ElseIf val = "1" Then
            min_value = 552.0
        ElseIf val = "1 1/2" Then
            min_value = 1380.0
        ElseIf val = "2" Then
            min_value = 3450.0
        ElseIf val = "3" Then
            min_value = 6210.0
        ElseIf val = "4" Then
            min_value = 12420.0
        End If
        Return min_value
    End Function
    Function commodityCharge(ByRef val As Decimal) As Decimal

        Dim charge_value As Decimal
        If val < 11 Then
            charge_value = 0
        ElseIf 11 <= val And val <= 20 Then
            charge_value = 18.9
        ElseIf 21 <= val And val <= 30 Then
            charge_value = 21.4
        ElseIf 31 <= val And val <= 40 Then
            charge_value = 24.6
        Else
            charge_value = 28.8
        End If
        Return charge_value
    End Function
    Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button1.Click
```

```

Listbox2.Items.Clear()
Dim t_consumption, min_charge, present, previous As Decimal
Dim pipe_size = Listbox1.SelectedItem

Try
    present = CDec(Textbox1.Text)
    previous = CDec(Textbox2.Text)

Catch ex As Exception
    MsgBox("Please enter numeric values only")
    Return
End Try

If present < previous Then
    MsgBox("Present consumption must be larger than previous consumption")
    Return
End If
t_consumption = present + previous
Dim comm_charge, total_bill As Decimal
If Radiobutton1.Checked Then
    comm_charge = (t_consumption - 10) * commodityCharge(t_consumption)
    min_charge = pipe_size_category(pipe_size)
ElseIf Radiobutton2.Checked Then
    comm_charge = (t_consumption - 10) * (commodityCharge(t_consumption) *
2)    min_charge = pipe_size_category(pipe_size) * 2
Else
    MsgBox("Please select one classification")
End If

total_bill = comm_charge + CDec(min_charge)
total_bill = calculate_discount(total_bill)
If total_bill < 0 Then
    MsgBox("Payment date must always ahead of time")
    Return
End If
Listbox2.Items.Add("Consumption: " & vbTab & vbTab &
t_consumption.ToString())
Listbox2.Items.Add("Minimum Charge: " & vbTab & vbTab &
min_charge.ToString())
Listbox2.Items.Add("Commodity Charge: " & vbTab & comm_charge.ToString())
Listbox2.Items.Add("Water Bill: " & vbTab & vbTab & total_bill.ToString())

End Sub

Private Sub Button2_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button2.Click

    Textbox1.Clear()
    Textbox2.Clear()
    Listbox2.Items.Clear()
End Sub

Private Sub Button3_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button3.Click
    Application.Exit()
End Sub

```

```
Private Sub TextBox4_TextChanged(sender As Object, e As EventArgs)
End Sub
End Class
```

