Filtering a Group of Data in VB.Net and SQL Server 2019

In this tutorial, I will teach you <strong>how to filter a group of data using VB.Net SQL Server 2019</strong>. This method has the ability to filter a group of data in the datagridview with the use of the radio buttons. You can select whether “<strong>Firstname</strong>”, “<strong>Lastname</strong>”, or “<strong>All</strong>” you want to display in the datagridview.

I used <strong>Microsoft Visual Studio 2015 and SQL Server 2019</strong> to develop this program.

Let’s Begin:

<h3>Creating Database</h3>

1. Install the <strong><a href="https://docs.microsoft.com/en-us/sql/ssms/download-sql-server-management-studio-ssms?view=sql-server-2017">MSSMS 2019</a></strong> on your machine.

2. Open the <strong> <a href="https://docs.microsoft.com/en-us/sql/ssms/download-sql-server-management-studio-ssms?view=sql-server-2017">MSSMS 2019</a></strong> . After that, right click the database, then select “<strong>New Database</strong>” and name it “<strong>dbperson</strong>”

<img src="https://www.sourcecodester.com/sites/default/files/2019-10-11.png" width="600" height="400" alt="fig 1" />

3. Do the following query to create a table in the database that you have created

<sql>

USE [dbperson]

GO

/\*\*\*\*\*\* Object: Table [dbo].[tblperson] Script Date: 11/10/2019 11:15:11 AM \*\*\*\*\*\*/

SET ANSI\_NULLS ON

GO

SET QUOTED\_IDENTIFIER ON

GO

CREATE TABLE [dbo].[tblperson](

[PersonID] [int] IDENTITY(1,1) NOT NULL,

[Fname] [nvarchar](50) NULL,

[Lname] [nvarchar](50) NULL

) ON [PRIMARY]

GO

</sql>

<h3>Creating Application</h3>

<h2>Step 1</h2>

Open <strong>Microsoft Visual Studio 2015 </strong>and create a new windows form application for visual basic.

<img src="https://www.sourcecodester.com/sites/default/files/creating\_application\_c\_3.png" width="600" height="400" alt="ps1" />

<h2>Step 2</h2>

Add three <strong>RadioButtons</strong>, a<strong> GroupBox</strong>, and a <strong>DataGridview</strong> inside the Form. Then do the Form just like shown below.

<img src="https://www.sourcecodester.com/sites/default/files/2019-11-13\_4.png" width="600" height="400" alt="fig 2" />

<h2>Step 3</h2>

Press F7 to open the code editor. In the code editor, add a namespace to access <code>SQL Server</code> libraries.

<vb>

Imports System.Data.SqlClient

</vb>

<h2>Step 4</h2>

Create a connection between <strong>Visual Basic 2015 and SQL Server database</strong>. After that, declare and initialize all the classes and variables that are needed.

<vb>

Dim con As SqlConnection = New SqlConnection("Data Source=.\SQLEXPRESS;Database=dbperson;trusted\_connection=true;")

Dim cmd As SqlCommand

Dim da As SqlDataAdapter

Dim dt As DataTable

Dim sql As String

</vb>

<h2>Step 5</h2>

Create a method for <strong>displaying data in the database and display it in the datagridview</strong>.

<vb>

Private Sub displayData(sql As String, dtg As DataGridView)

Try

con.Open()

cmd = New SqlCommand()

da = New SqlDataAdapter

dt = New DataTable

With cmd

.Connection = con

.CommandText = sql

End With

With da

.SelectCommand = cmd

.Fill(dt)

End With

dtg.DataSource = dt

Catch ex As Exception

MsgBox(ex.Message)

Finally

con.Close()

da.Dispose()

End Try

End Sub

</vb>

<h2>Step 6</h2>

Write the following codes to retrieve the data in the datagridview in the first load of the form.

<vb>

Private Sub Form1\_Load(sender As Object, e As EventArgs) Handles MyBase.Load

sql = "SELECT Fname as Firstname, Lname as Lastname FROM tblperson"

displayData(sql, DataGridView1)

End Sub

</vb>

<h2>Step 7</h2>

Write the following codes for the selection of data.

<vb>

'first name

Private Sub RadioButton1\_CheckedChanged(sender As Object, e As EventArgs) Handles RadioButton1.CheckedChanged

sql = "SELECT Fname as Firstname FROM tblperson"

displayData(sql, DataGridView1)

End Sub

'last name

Private Sub RadioButton2\_CheckedChanged(sender As Object, e As EventArgs) Handles RadioButton2.CheckedChanged

sql = "SELECT Lname as Lastname FROM tblperson"

displayData(sql, DataGridView1)

End Sub

'all

Private Sub RadioButton3\_CheckedChanged(sender As Object, e As EventArgs) Handles RadioButton3.CheckedChanged

sql = "SELECT Fname as Firstname, Lname as Lastname FROM tblperson"

displayData(sql, DataGridView1)

End Sub

</vb>

The complete source code is included. You can download it and run it on your computer.

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