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**Subject: Create Stream Key Generator**

**Class: 2nd**

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**Lecture: (3Practical)**



## Project Overview:

The program will have a basic form with a button to generate the stream key and a textbox to display it.

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## Steps to Create the Program

### Step 1: Set Up the Project

1. Open **Visual Studio .NET 2012**.
2. Go to **File > New > Project**.
3. Select **Visual Basic** under **Templates**, and choose **Windows Forms Application**.
4. Name the project (e.g., `StreamKeyGenerator`), and click **OK** to create the project.

### Step 2: Design the Form

1. In the **Form Designer** (`Form1.vb`), add the following controls:
  - **Button**: This button will trigger the stream key generation.
  - **TextBox**: This textbox will display the generated stream key.
2. Set properties for the controls:
  - **Button**:
    - Name: `btnGenerateKey`
    - Text: `Generate Stream Key`
  - **TextBox**:
    - Name: `txtStreamKey`
    - `ReadOnly`: `True` (to prevent user editing)
3. Arrange the controls so that the button is below the textbox.

### Step 3: Add Code to Generate the Stream Key

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1. Double-click the **Generate Stream Key** button (`btnGenerateKey`) to open the code editor and add the `Click` event.
2. Add the following code to generate a random stream key and display it in the textbox.

Public Class Form1

‘ Event handler for Generate Stream Key button

Private Sub btnGenerateKey\_Click(sender As Object, e As EventArgs) Handles btnGenerateKey.Click

‘ Call function to generate a stream key and display it in the textbox

`txtStreamKey.Text = GenerateStreamKey()`

End Sub

‘ Function to generate a random stream key

Private Function GenerateStreamKey() As String

‘ Define possible characters in the stream key

`Dim chars As String = "ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz012345687"`

`Dim keyLength As Integer = 16` ' Length of the stream key

`Dim random As New Random()`

`Dim streamKey As String = ""`



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‘ Loop to generate random characters from the defined list

For i As Integer = 1 To keyLength

Dim index As Integer = random.Next(chars.Length)

streamKey &= chars(index)

Next

Return streamKey

End Function

End Class

### Code Explanation

- **btnGenerateKey\_Click:** This is the event handler that gets called when the button is clicked. It calls the GenerateStreamKey function and sets the result as the text in txtStreamKey.
- **GenerateStreamKey Function:** This function creates a random stream key by:
  - Defining a set of characters (chars) that can be used in the key.
  - Using a For loop to randomly pick characters from chars and appending them to build a string.
  - Returning the generated stream key string.



### Step 4: Run the Program

1. Press **F5** or click **Start Debugging** to run the program.
2. Click **Generate Stream Key** to see a random stream key generated and displayed in the textbox.