**CODE:**

**Form1.Designer.cs**

using KafkaNet;

using KafkaNet.Model;

using KafkaNet.Protocol;

using System.Text;

using System.Threading;

namespace KafkaWinApp

{

partial class Form1

{

/// <summary>

/// Required designer variable.

/// </summary>

private System.ComponentModel.IContainer components = null;

/// <summary>

/// Clean up any resources being used.

/// </summary>

/// <param name="disposing">true if managed resources should be disposed; otherwise, false.</param>

protected override void Dispose(bool disposing)

{

if (disposing && (components != null))

{

components.Dispose();

}

base.Dispose(disposing);

}

#region Windows Form Designer generated code

/// <summary>

/// Required method for Designer support - do not modify

/// the contents of this method with the code editor.

/// </summary>

private void InitializeComponent()

{

this.textBox1 = new System.Windows.Forms.TextBox();

this.button1 = new System.Windows.Forms.Button();

this.listBox1 = new System.Windows.Forms.ListBox();

this.SuspendLayout();

//

// textBox1

//

this.textBox1.Location = new System.Drawing.Point(41, 60);

this.textBox1.Name = "textBox1";

this.textBox1.Size = new System.Drawing.Size(212, 26);

this.textBox1.TabIndex = 0;

this.textBox1.Text = "Text mssg";

//

// button1

//

this.button1.Location = new System.Drawing.Point(364, 62);

this.button1.Name = "button1";

this.button1.Size = new System.Drawing.Size(75, 32);

this.button1.TabIndex = 1;

this.button1.Text = "Send";

this.button1.UseVisualStyleBackColor = true;

this.button1.Click += new System.EventHandler(this.button1\_Click);

//

// listBox1

//

this.listBox1.FormattingEnabled = true;

this.listBox1.ItemHeight = 20;

this.listBox1.Location = new System.Drawing.Point(73, 133);

this.listBox1.Name = "listBox1";

this.listBox1.Size = new System.Drawing.Size(366, 144);

this.listBox1.TabIndex = 2;

//

// Form1

//

this.AutoScaleDimensions = new System.Drawing.SizeF(9F, 20F);

this.AutoScaleMode = System.Windows.Forms.AutoScaleMode.Font;

this.ClientSize = new System.Drawing.Size(800, 450);

this.Controls.Add(this.listBox1);

this.Controls.Add(this.button1);

this.Controls.Add(this.textBox1);

this.Name = "Form1";

this.Text = "Form1";

this.ResumeLayout(false);

this.PerformLayout();

}

#endregion

private System.Windows.Forms.TextBox textBox1;

private System.Windows.Forms.Button button1;

private System.Windows.Forms.ListBox listBox1;

}

}

**Form1.cs**

using KafkaNet;

using KafkaNet.Model;

using KafkaNet.Protocol;

using System;

using System.Collections.Generic;

using System.Threading;

using System.Windows.Forms;

namespace KafkaWinApp

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

// Check if the text box is empty

if (textBox1.Text == string.Empty)

{

MessageBox.Show("Please Enter Message", "Warning", MessageBoxButtons.OK, MessageBoxIcon.Warning);

return;

}

// Get message text

string payload = textBox1.Text.Trim();

string topic = "chat-message";

Uri uri = new Uri("http://localhost:9092"); // Kafka broker URI

// Send message in a background thread to prevent UI freezing

var sendMessage = new Thread(() =>

{

try

{

var msg = new KafkaNet.Protocol.Message(payload);

var options = new KafkaNet.Model.KafkaOptions(uri);

var router = new KafkaNet.BrokerRouter(options);

var client = new KafkaNet.Producer(router);

client.SendMessageAsync(topic, new List<KafkaNet.Protocol.Message> { msg }).Wait();

// Update list box from UI thread

this.Invoke((MethodInvoker)delegate {

listBox1.Items.Add("Sent: " + payload);

});

}

catch (Exception ex)

{

MessageBox.Show("Error sending message: " + ex.Message);

}

});

sendMessage.Start();

textBox1.Clear();

}

}

}

**Program.cs**

using System;

using System.Collections.Generic;

using System.Linq;

using System.Threading.Tasks;

using System.Windows.Forms;

namespace KafkaWinApp

{

internal static class Program

{

/// <summary>

/// The main entry point for the application.

/// </summary>

[STAThread]

static void Main()

{

Application.EnableVisualStyles();

Application.SetCompatibleTextRenderingDefault(false);

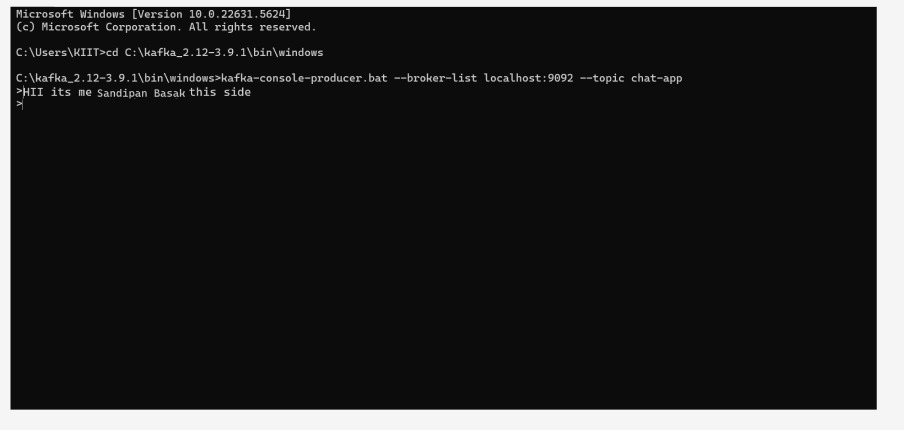
Application.Run(new Form1());

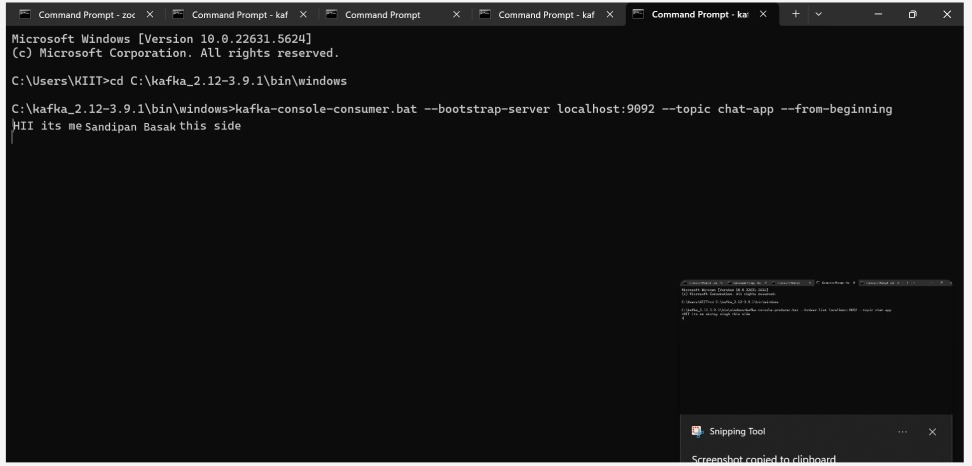
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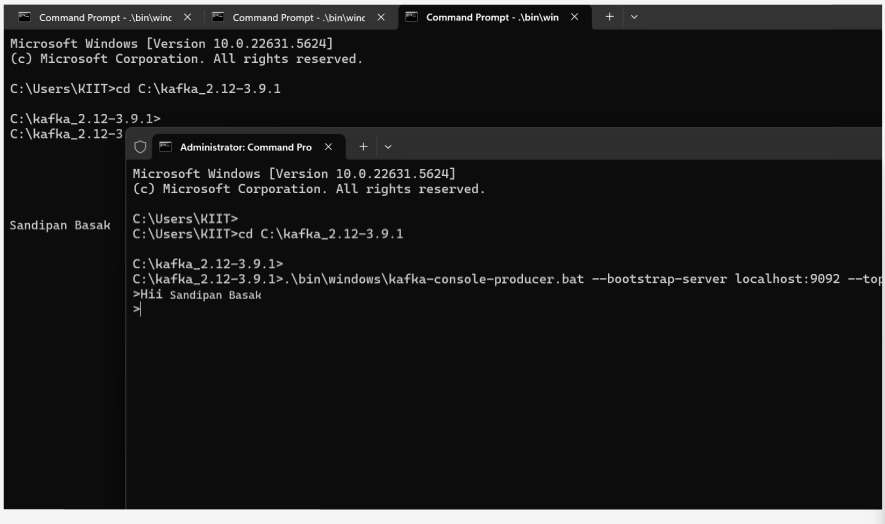
}

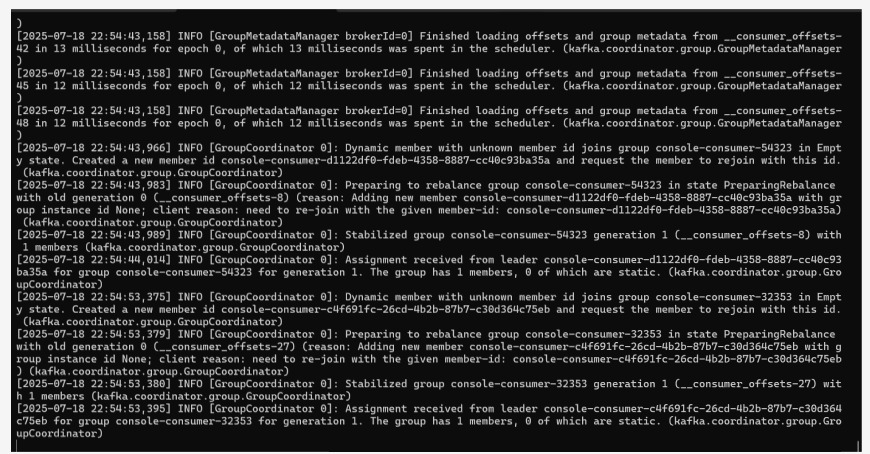
}

**OUTPUT**

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