Lab 06:

Code:

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Text.RegularExpressions;

using System.Threading.Tasks;

using System.Windows.Forms;

namespace CCLab06

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

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

{

string input = txtInput.Text;

lstOutput.Items.Clear();

// Check if the input matches a simple Java variable declaration rule.

string variablePattern = @"\b(int|float|double|char|boolean)\s+\w+\s\*;"; // Java variable declaration regex

string methodPattern = @"\b(public|private|protected)\s+\w+\s+\w+\s\*\(.\*\)\s\*{"; // Java method declaration regex

if (Regex.IsMatch(input, variablePattern))

{

lstOutput.Items.Add("Valid variable declaration.");

}

else

{

lstOutput.Items.Add("Invalid variable declaration.");

}

if (Regex.IsMatch(input, methodPattern))

{

lstOutput.Items.Add("Valid method declaration.");

}

else

{

lstOutput.Items.Add("Invalid method declaration.");

}

// Further Java constructs can be added similarly here.

lblResult.Text = "Grammar Check Completed!";

}

}

}

Output:

