# **COMSATS UNIVERSITY ISLAMABAD**

*ATTOCK CAMPUS*



Submitted To

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Submitted By

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**Question 2:**

using System;

using System.Collections.Generic;

using System.Text.RegularExpressions;

class Program

{

    static void Main(string[] args)

    {

        Console.WriteLine("Enter code in your mini-language (e.g., var a1 = 12@; float b2 = 3.14$$;):");

        string? inputCode = Console.ReadLine();

        inputCode = inputCode ?? string.Empty;

        string pattern = @"(?<type>\w+)\s+(?<name>[abc]\w\*\d+)\s\*=\s\*(?<value>[^;]\*?[^\w\s.][^;]\*);";

        var matches = Regex.Matches(inputCode, pattern);

        Console.WriteLine("\n{0,-15} {1,-15} {2,-15}", "VarName", "SpecialSymbol", "Token Type");

        Console.WriteLine(new string('-', 45));

        foreach (Match match in matches)

        {

            string varName = match.Groups["name"].Value;

            string valueStr = match.Groups["value"].Value;

            string varType = match.Groups["type"].Value;

            string specialChar = ExtractFirstSpecialChar(valueStr);

            if (!string.IsNullOrEmpty(specialChar))

            {

                Console.WriteLine("{0,-15} {1,-15} {2,-15}", varName, specialChar, varType);

            }

        }

        Console.WriteLine("\nPress any key to exit...");

        Console.ReadKey();

    }

    static string ExtractFirstSpecialChar(string value)

    {

        foreach (char c in value)

        {

            if (!char.IsLetterOrDigit(c) && !char.IsWhiteSpace(c) && c != '.')

            {

                return c.ToString();

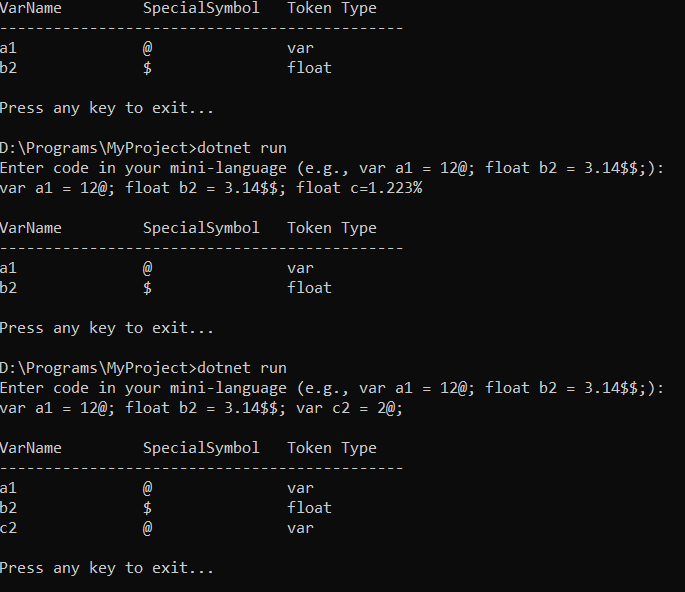
            }

        }

        return string.Empty;

    }

}

**Output:**