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LAB PROGRAMS : 07/07/2022

QUESTION 1

Write a Program in c# to implement QUIZ

PROGRAM :

```csharp
using System;
using System.Timers;
using System.Threading;
using Timer = System.Timers.Timer;
namespace McqTest
{
    //Console Application For Mcq Test
    class Test
    {

        //Declaring Recquired Variables
        string candidateName;
        int candidateID;
        string[,] questions = new string[10, 5];
        string[] answers = new string[10];
        int mark = 0;
        //method for Get Candidate Details
        void GetCandidateDetails()
        {
            Console.WriteLine("Enter CandidateDetails");
            Console.WriteLine();
            Console.Write("Enter Candidate Name : ");
            candidateName = Console.ReadLine();
            Console.Write("Enter Candidate ID : ");
            candidateID = int.Parse(Console.ReadLine());
        }
        //method for Initilizing Questions
        void InitQuestions()
        {
            questions[0, 0] = "What is a StringBuilder ? ";
            questions[0, 1] = "a. datatype ";
            questions[0, 2] = "b. class";
            questions[0, 3] = "c. object";
            questions[0, 4] = "d. variable";
            questions[1, 0] = "What is string ?";
            questions[1, 1] = "a. datatype";
            questions[1, 2] = "b. class";
            questions[1, 3] = "c. object";
            questions[1, 4] = "d. variable";
            questions[2, 0] = "Choose the Statement Which is true";
            questions[2, 1] = "a. String is not depend upon values";
            questions[2, 2] = "b. String is mutable";
            questions[2, 3] = "c. stringBuilder is immutable";
            questions[2, 4] = "d. String Builder is used when value is keepon changes";
            questions[3, 0] = " Correct Syntax for declaring StringBuilder  ";
            questions[3, 1] = "a. StringBuilder name = new StringBuilder()";
            questions[3, 2] = "b. stringbuilder name = new stringbuilder(value)";
            questions[3, 3] = "c. StringBuilder name = new StringBuilder(value)";
            questions[3, 4] = "d. stringbuilder name = new stringbuilder()";
            questions[4, 0] = " Correct Syntax for initilizing StringBuilder  ";
            questions[4, 1] = "a. StringBuilder name = new StringBuilder()";
            questions[4, 2] = "b. stringbuilder name = new stringbuilder(value)";
            questions[4, 3] = "c. StringBuilder name = new StringBuilder(value)";
            questions[4, 4] = "d. stringbuilder name = new stringbuilder()";
            questions[5, 0] = " Equals() return ";
            questions[5, 1] = "a. integer";
            questions[5, 2] = "b. boolean";
            questions[5, 3] = "c. float";
            questions[5, 4] = "d. string";
            questions[6, 0] = " CompareTo() return ";
            questions[6, 1] = "a. integer";
            questions[6, 2] = "b. boolean";
            questions[6, 3] = "c. float";
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        questions[6, 4] = "d. string";
        questions[7, 0] = "Total number of parameters in Trim() method";
        questions[7, 1] = "a. 1";
        questions[7, 2] = "b. 2";
        questions[7, 3] = "c. 3";
        questions[7, 4] = "d. 4";
        questions[8, 0] = "To change one character to another characte _____ method is
used";
        questions[8, 1] = "a. Length()";
        questions[8, 2] = "b. ToString()";
        questions[8, 3] = "c. Convert()";
        questions[8, 4] = "d. Replace()";
        questions[9, 0] = "To add One string to another string _____ method is used ";
        questions[9, 1] = "a. Concade()";
        questions[9, 2] = "b. Append()";
        questions[9, 3] = "c. +";
        questions[9, 4] = "d. Add()";


    }

    //inizilizing correct Answers
    string[] crtAnswers = { "b", "a", "d", "a", "c", "b", "a", "b", "d", "b" };

    //method for Display questions and get answers
    void ShowQuestions()
    {
        Console.WriteLine();
            Console.WriteLine("Your Questions are : ");
            int q = 1;
            for (int i = 0; i < 10; i++)
            {
                Console.WriteLine("Question {0}", q);
                for (int j = 0; j < 5; j++)
                {
                    Console.WriteLine(questions[i, j]);
                }
                Console.Write("Enter Option( a,b,c or d ) for question {0} : ", q);
                try
                {
                    answers[i] = Console.ReadLine();
                    answers[i] = answers[i].ToLower();
                    q++;
                    Console.WriteLine();
                }
                catch (FormatException e)
                {
                    Console.WriteLine(e.Message);
                }
            }
    }
    //method for calculate marks
    void CalulateMark()
    {
            for (int i = 0; i < 10; i++)
            {
                if (answers[i] == crtAnswers[i])
                {
                    mark++;
                }
            }
    }
    //method for calculate grade
    void CalculateGrade()
    {
        if (mark >= 9)
        {
            Console.WriteLine("Grade of ID {0} is Green", candidateID);
        }
```

```csharp
            else if (mark < 9 && mark > 5)
            {
                Console.WriteLine("Grade of ID {0} is Red", candidateID);
            }
            else
            {
                Console.WriteLine("Grade of ID {0} is Amber",candidateID);
            }
        }

        //method to call the methods
        public void Show()
        {
            Console.WriteLine("
Anudip Foundation (Life Transformed)
");
            Console.WriteLine("
C# Mcq Quiz                                                    ");
            GetCandidateDetails();
            InitQuestions();
            ShowQuestions();
            CalulateMark();
            Console.WriteLine();
            Console.WriteLine("{1}'s Mark is : {0}", mark,candidateName);
            CalculateGrade();
        }
    }
    class MainClass
    {
        static void Main(string[] args)
        {
            //Creating object for Test class
            Test test = new Test();
            //Calling show method
            test.Show();
        }
    }
}
```

OUTPUT :


```
Microsoft Visual Studio Debug Console                                                    —   □   X
                              Anudip Foundation (Life Transformed)
                                         C# Mcq Quiz

Enter CandidateDetails

Enter Candidate Name : Arun
Enter Candidate ID : 6003

Your Questions are :
Question 1
what is a StringBuilder ?
a. datatype
b. class
c. object
d. variable
Enter Option( a,b,c or d ) for question 1 : b

Question 2
what is string ?
a. datatype
b. class
c. object
d. variable
Enter Option( a,b,c or d ) for question 2 : a

Question 3
Choose the Statement Which is true
a. String is not depend upon values
b. String is mutable
c. stringBuilder is immutable
d. String Builder is used when value is keepon changes
Enter Option( a,b,c or d ) for question 3 : d

Question 4
 Correct Syntax for declaring StringBuilder
a. StringBuilder name = new StringBuilder()
b. stringbuilder name = new stringbuilder(value)
c. StringBuilder name = new StringBuilder(value)
d. stringbuilder name = new stringbuilder()
Enter Option( a,b,c or d ) for question 4 : a

Question 5
 Correct Syntax for initilizing StringBuilder
a. StringBuilder name = new StringBuilder()
b. stringbuilder name = new stringbuilder(value)
c. StringBuilder name = new StringBuilder(value)
d. stringbuilder name = new stringbuilder()
Enter Option( a,b,c or d ) for question 5 : c
```



```
Microsoft Visual Studio Debug Console                                                    —   □   X
Question 6
 Equals() return
a. integer
b. boolean
c. float
d. string
Enter Option( a,b,c or d ) for question 6 : b

Question 7
 CompareTo() return
a. integer
b. boolean
c. float
d. string
Enter Option( a,b,c or d ) for question 7 : a

Question 8
Total number of parameters in Trim() method
a. 1
b. 2
c. 3
d. 4
Enter Option( a,b,c or d ) for question 8 : b

Question 9
To change one character to another characte _____ method is used
a. Length()
b. ToString()
c. Convert()
d. Replace()
Enter Option( a,b,c or d ) for question 9 : D

Question 10
To add One string to another string _____ method is used
a. Concade()
b. Append()
c. +
d. Add()
Enter Option( a,b,c or d ) for question 10 : b


Arun's Mark is : 10
Grade of ID 6003 is Green

C:\Users\Arun\source\repos\Labsession\Labsession\bin\Debug\net6.0\Labsession.exe (process 18724) exited with code 0.
To automatically close the console when debugging stops, enable Tools->Options->Debugging->Automatically close the console when debugging stops.
Press any key to close this window . . .
d. Replace()
```