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Roll No: 33		Lab Practical Number: 1.1	
Title of Lab Practical: WAP in C# to determine the given date is magic or not using Console Application.			
DOP: 08/02/2021		DOS: 15/02/2021	
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Practical No 1.1

13/02/2021

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Roll No: 33
MCA Sem IV / 1st Year
VESIT Afternoon

Practical No: 1.1

Aim: To write a program in C# that ask the user to enter a month, a day and a two digit year. The program should then determine whether the month times a day is equal to the year. If so, it should display the message saying the date is magic, otherwise not magic.

Theory: C# is a programming language developed by Microsoft that runs on the .NET Framework. It is used to develop web apps, desktop app, mobile apps, game and much more. It is an .NET initiative led by Anders Hejlsberg.

C# is approved by European Computer Manufacturers Association (ECMA) and International Standard Organization (ISO). It is designed for CLI (Common Language Infrastructure), which includes executable codes and runtime environment which allows to use of various high-level languages on different computer platform and architectures.

.NET Framework

It is a software development platform developed by Microsoft for building and running Windows applications. Its consist of developer tools, programming languages and

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libraries to build desktop and web applications. It is also used to build websites, web services and games. The .NET framework was meant to create applications that would run on windows platform. Its can be used to create both Form-based and Web-based application. We can also develop web services using .NET Framework. Its also support various programming language such as Visual basic and C#, so its help the developers to choose and select the language to develop the required application.

The .NET Framework has the following components:

- Common Language Runtime (CLR)
- The .NET Framework Class Library
- Common Language Specification
- Common Type System
- Metadata and Assemblies
- Windows Forms
- ASP.NET and ASP.NET AJAX
- LINQ

Microsoft provides the following tools for the development of C# programming with the help of IDE they are:

- Visual Studio 2010
- Visual C# 2010 Express
- Visual Web Developer

C# Basic Syntax

- **using keyword:** It is used for including the namespace in the program. Syntax: `using System;`
- **class keyword:** It is used for declaring a class.
- **comments:** It is used for explaining the code.
eg: `/* Basis syntax of C# */`
- **Member variables:** They are the attributes or data members of a class, which is used for storing data.
- **Member functions:** They are a set of statements that perform a specific task.

Program Structure

A C# program consists of the following structure:

- namespace declaration
- A class
- Class method
- class attributes
- Main method
- Statements and Expressions
- Comments

In the program we started the code by using `System;` it means that we use classes from the `System` namespace. Then we defined the namespace which is used to organise the code, also it is a container for classes and other namespace. The curly braces `{ }` indicate

to mark the beginning and end of the block code. The next line consist of class which bring the functionality to the program; it is also a container for both data and methods. Then we defined the static main method in which the code inside the curly braces will be executed. Then we defined int day, month, year and result integer. Then we defined the console which is a class of System namespace which has WriteLine method which include for date, month and year. It helps to ~~the~~ write the output in the console. Then we used the Console.ReadLine functions to read the input from the users. Then we defined the result function calculated by $\text{month} * \text{day} \cdot \text{alf}$ the entered date is magic it will displayed as a magic date otherwise not.

Conclusion: We have written a program to show whether the date is magic or not.

Code:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;

namespace ConsoleApplication1
{
    class Program
    {
        static void Main(string[] args)
        {
            int day, month, year, result;
            Console.WriteLine("Enter Day:");
            day = int.Parse(Console.ReadLine());
            Console.WriteLine("Enter month:");
            month = int.Parse(Console.ReadLine());
            Console.WriteLine("Enter year:");
            year = int.Parse(Console.ReadLine());
```

```
        result = month * day;
        if (result == year)
        {
            Console.WriteLine(day + "/" + month + "/" + year + " is a magic date");
        }
        else
        {
            Console.WriteLine(day + "/" + month + "/" + year + " is not a magic date");
        }
        Console.ReadLine();
    }
}
```

Output:

```
file:///c:/users/ninad/documents/visual studio 2010/Projects/ConsoleApplication1/ConsoleApplication1/bin/Debug/ConsoleApplication1.EXE
Enter Day:
13
Enter month:
02
Enter year:
21
13/2/21 is not a magic date
```

```
file:///c:/users/ninad/documents/visual studio 2010/Projects/ConsoleApplication1/ConsoleApplication1/bin/Debug/ConsoleApplication1.EXE
Enter Day:
06
Enter month:
10
Enter year:
60
6/10/60 is a magic date
```