

# ASP.NET Assignment 6

**QUESTION 1 :** Creating a user registration web application DESCRIPTION: Create a data table with columns First Name, Last Name, Mobile, Gender , Address, User Name and Password . Create a web application that has following fields as textboxes: First Name, Last Name, Mobile, Address, User Name, Password, and Confirm Password and a dropdown list Gender .on clicking submit button the data should be written in database.

User Registration

First Name \*

Last Name \*

Mobile \*

Gender \*

Address

User Name \*

Password \*

Confirm Password \*  Passwords do not match.

User Registration

First Name \*

Last Name \*

Mobile \*

Gender \*

Address

User Name \*

Password \*

Confirm Password \*

User Registration

First Name \*

Last Name \*

Mobile \*

Gender \*

Address

User Name \*

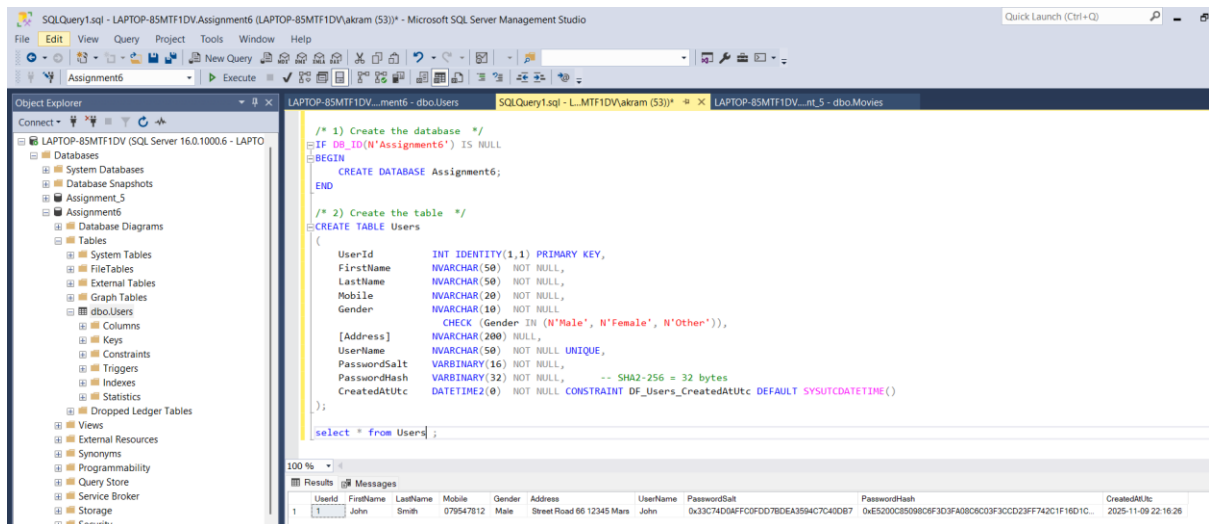
Password \*

Confirm Password \*

☒ User registered successfully.

Results Messages

	UserId	FirstName	LastName	Mobile	Gender	Address	UserName	PasswordSalt	PasswordHash	CreatedAtUtc
1	1	John	Smith	079547812	Male	Street Road 66 12345 Mars	John	0x33C74D0AFFC0FDD7BDEA3594C7C40DB7	0xE5200C85098C6F3D3FA08C6C03F3CCD23FF742C1F16D1C...	2025-11-09 22:16:26



```

/* 1) Create the database */
IF DB_ID(N'Assignment6') IS NULL
BEGIN
    CREATE DATABASE Assignment6;
END

```

```

/* 2) Create the table */
CREATE TABLE Users
(
    UserId          INT IDENTITY(1,1) PRIMARY KEY,
    FirstName       NVARCHAR(50) NOT NULL,
    LastName        NVARCHAR(50) NOT NULL,
    Mobile          NVARCHAR(20) NOT NULL,
    Gender          NVARCHAR(10) NOT NULL
    CHECK (Gender IN (N'Male', N'Female', N'Other')),
    [Address]       NVARCHAR(200) NULL,
    UserName        NVARCHAR(50) NOT NULL UNIQUE,
    PasswordSalt    VARBINARY(16) NOT NULL,
    PasswordHash    VARBINARY(32) NOT NULL, -- SHA2-256 = 32 bytes
    CreatedAtUtc    DATETIME2(0) NOT NULL CONSTRAINT DF_Users_CreatedAtUtc DEFAULT SYSUTCDATETIME()
);

select * from Users;

```

## QUESTION 2 : OTP verification DESCRIPTION:

Create a Web application that uses API for sending one time password through text message on phone number and ask user to verify the same in web form

### Install the NuGet package

In Visual Studio's **Package Manager Console**, run:

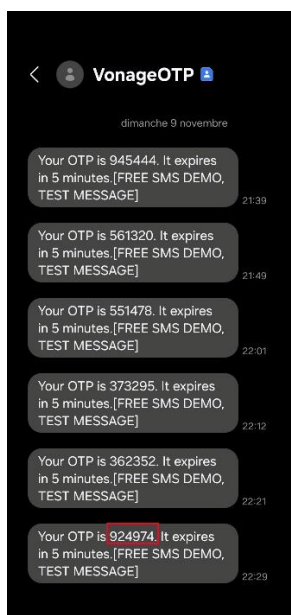
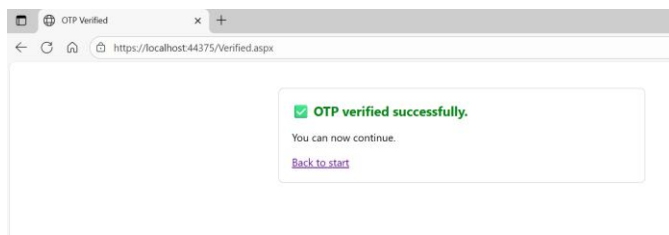
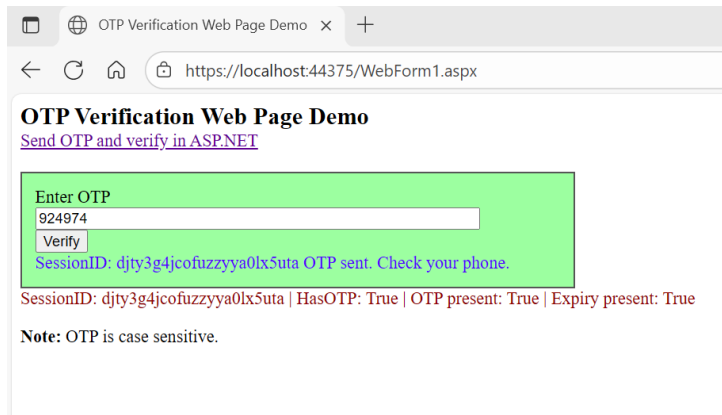
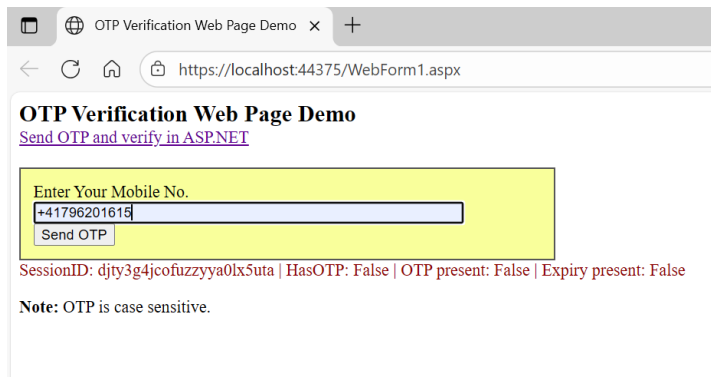
#### *Install-Package Vonage*

```
PM> Install-Package Vonage

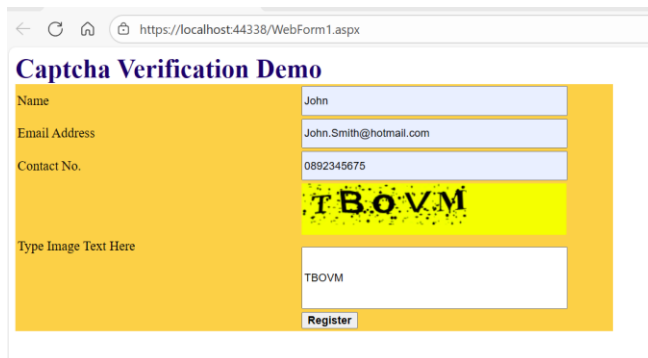
Attempting to gather dependency information for package 'Vonage.8.15.0' with respect to project 'WebAppOTP', targeting '.NETFramework,Version=v4.8'
Gathering dependency information took 4.74 sec
Attempting to resolve dependencies for package 'Vonage.8.15.0' with DependencyBehavior 'Lowest'
Resolving dependency information took 0 ms
Resolving actions to install package 'Vonage.8.15.0'
Resolved actions to install package 'Vonage.8.15.0'
GET https://api.nuget.org/v3-flatcontainer/system.io/4.3.0/system.io.4.3.0.nupkg
GET https://api.nuget.org/v3-flatcontainer/microsoft.extensions.primitives/8.0.0/microsoft.extensions.primitives.8.0.0.nupkg
GET https://api.nuget.org/v3-flatcontainer/standardsocketshandler/2.2.0.8/standardsocketshandler.2.2.0.8.nupkg
GET https://api.nuget.org/v3-flatcontainer/jose-jwt/5.2.0/jose-jwt.5.2.0.nupkg
GET https://api.nuget.org/v3-flatcontainer/microsoft.extensions.fileproviders.physical/8.0.0/microsoft.extensions.fileproviders.physical.8.0.0.nupkg
GET https://api.nuget.org/v3-flatcontainer/enums.net/5.0.0/enums.net.5.0.0.nupkg
GET https://api.nuget.org/v3-flatcontainer/microsoft.extensions.fileproviders.abstractions/8.0.0/microsoft.extensions.fileproviders.abstractions.8.0.0.nupkg
GET https://api.nuget.org/v3-flatcontainer/microsoft.extensions.filesystemglobbing/8.0.0/microsoft.extensions.filesystemglobbing.8.0.0.nupkg
GET https://api.nuget.org/v3-flatcontainer/system.security.cryptography.encoding/4.3.0/system.security.cryptography.encoding.4.3.0.nupkg
GET https://api.nuget.org/v3-flatcontainer/system.runtime/4.3.0/system.runtime.4.3.0.nupkg
GET https://api.nuget.org/v3-flatcontainer/system.security.cryptography.primitives/4.3.0/system.security.cryptography.primitives.4.3.0.nupkg
GET https://api.nuget.org/v3-flatcontainer/system.security.cryptography.algorithms/4.3.1/system.security.cryptography.algorithms.4.3.1.nupkg
OK https://api.nuget.org/v3-flatcontainer/system.security.cryptography.encoding/4.3.0/system.security.cryptography.encoding.4.3.0.nupkg 7ms
OK https://api.nuget.org/v3-flatcontainer/system.runtime/4.3.0/system.runtime.4.3.0.nupkg 9ms
OK https://api.nuget.org/v3-flatcontainer/standardsocketshandler/2.2.0.8/standardsocketshandler.2.2.0.8.nupkg 6ms
OK https://api.nuget.org/v3-flatcontainer/microsoft.extensions.fileproviders.physical/8.0.0/microsoft.extensions.fileproviders.physical.8.0.0.nupkg 58ms
OK https://api.nuget.org/v3-flatcontainer/system.security.cryptography.primitives/4.3.0/system.security.cryptography.primitives.4.3.0.nupkg 64ms
```

The screenshot shows the Vonage API dashboard. On the left, there's a sidebar with 'CONTROL' (Billing, API Settings) and 'MONITOR' (Fraud Defender, Logs, Analytics, Delivery and Quality) sections. The main area is titled 'Try the SMS API' and includes a 'Send message' button. A code snippet for sending an SMS is visible.

The screenshot shows the Visual Studio IDE with the 'WebAppOTP' project open. The 'WebForm1.aspx.cs' file is selected, showing the code for the web form. The 'WebForm1.aspx' file is also visible in the Solution Explorer.



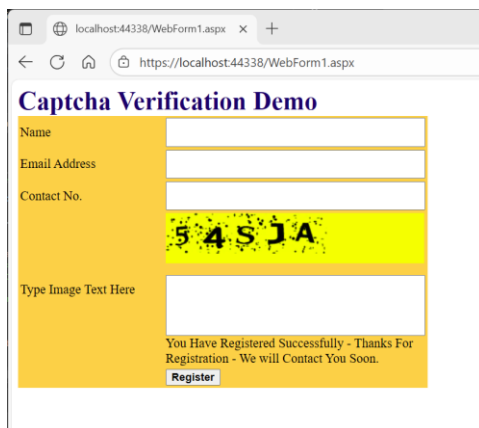
**QUESTION 3 :** Captcha Verification DESCRIPTION: Create a windows application that has Name, Email, Contact no. Textboxes and add a captcha assembly which creates captcha and verifies it every time. after successful captcha verification a message should be displayed which reads "You have registered Successfully". If captcha entered by user is wrong it should display "enter the correct captcha".



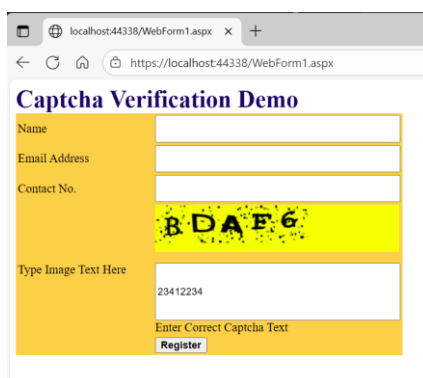
The screenshot shows a web browser window with the URL <https://localhost:44338/WebForm1.aspx>. The page title is "Captcha Verification Demo". The form contains the following fields and values:

Field	Value
Name	John
Email Address	John.Smith@hotmail.com
Contact No.	0892345675
Captcha Image	TBOVM
User Input	TBOVM

Below the input field is a "Register" button.



The screenshot shows the same web browser window. The form fields are now empty. A yellow banner displays the message: "You Have Registered Successfully - Thanks For Registration - We will Contact You Soon." Below the banner is a "Register" button.



The screenshot shows the same web browser window. The form fields are empty. A yellow banner displays the message: "Enter Correct Captcha Text". Below the banner is a "Register" button.

**QUESTION 4 :** Master page DESCRIPTION: Create a Windows application with one master page and two child pages/ Content pages.

