7 – DAY – TASK (27-08-2024)

1. ADO Console Application:

   Code:

```
using System;
using System.Data.SqlClient;
using System.Linq.Expressions;

internal class Program
{
   private static SqlConnection conn = null;
   private static SqlCommand cmd = null;

   private static List<string> list = new List<string>();

   static int id, count;
   static string name;
   static decimal price;

   private static void Main(string[] args)
   {
      int choice;
      Console.WriteLine("--WELCOME TO APPLICATION--\nEnter the process to be
executed:");
      do
      {
         Console.WriteLine("\nSelect below
options:\n1.Create\n2.Insert\n3.Delete\n4.Update\n5.Fetch\n6.Exit");
         choice = Convert.ToInt32(Console.ReadLine());
         try
         {
         switch(choice)
         {
               case 1:
                  if (Create())
```

```
    {
      Console.WriteLine("Table Created successfully");
    }
    else
    {
      Console.WriteLine("Table Not Created.");
    }
    break;
  case 2:

    Console.WriteLine("Enter number of product insert: ");
    count = Convert.ToInt32(Console.ReadLine());

    while(count > 0)
    {
      Console.WriteLine("Enter the product id, name, and price:");
      id = Convert.ToInt32(Console.ReadLine());
      name = Console.ReadLine();
      price = Convert.ToDecimal(Console.ReadLine());
      if(Insert(id, name, price))
      {
        Console.WriteLine($"Id: {id} product successfully inserted.");
      }
      else
      {
        Console.WriteLine($"Id: {id} product not inserted.");
      }
      count -= 1;
    }
    break;
  case 3:

    Console.WriteLine("Enter product id:");
    id = Convert.ToInt32(Console.ReadLine());
    if(Delete(id))
    {
      Console.WriteLine($"Product Id: {id} successfully deleted.");
    }
```

```
                else
                {
                    Console.WriteLine($"Product Id: {id} not deleted/not available.");
                }
                break;
            case 4:
                Console.WriteLine("Enter the product id and price");
                id = Convert.ToInt32(Console.ReadLine());
                price = Convert.ToDecimal(Console.ReadLine());
                if(Update(id, price))
                {
                    Console.WriteLine($"product id: {id} updated.(price = {price})");
                }
                else
                {
                    Console.WriteLine($"Product id: {id} not updated.");
                }
                break;
            case 5:

                List<string> list = Fetch;
                if(list.Count != 0)
                {
                    string heading = string.Format("{0, -5}{1, -15}{2, -15}", "Id", "Name",
"Price");
                    Console.WriteLine(heading);
                    foreach(string str in list)
                    {
                        Console.WriteLine(str);
                    }
                    list.Clear();
                }
                else
                {
                    Console.WriteLine("Not available products.");
                }
                break;
            default:
```

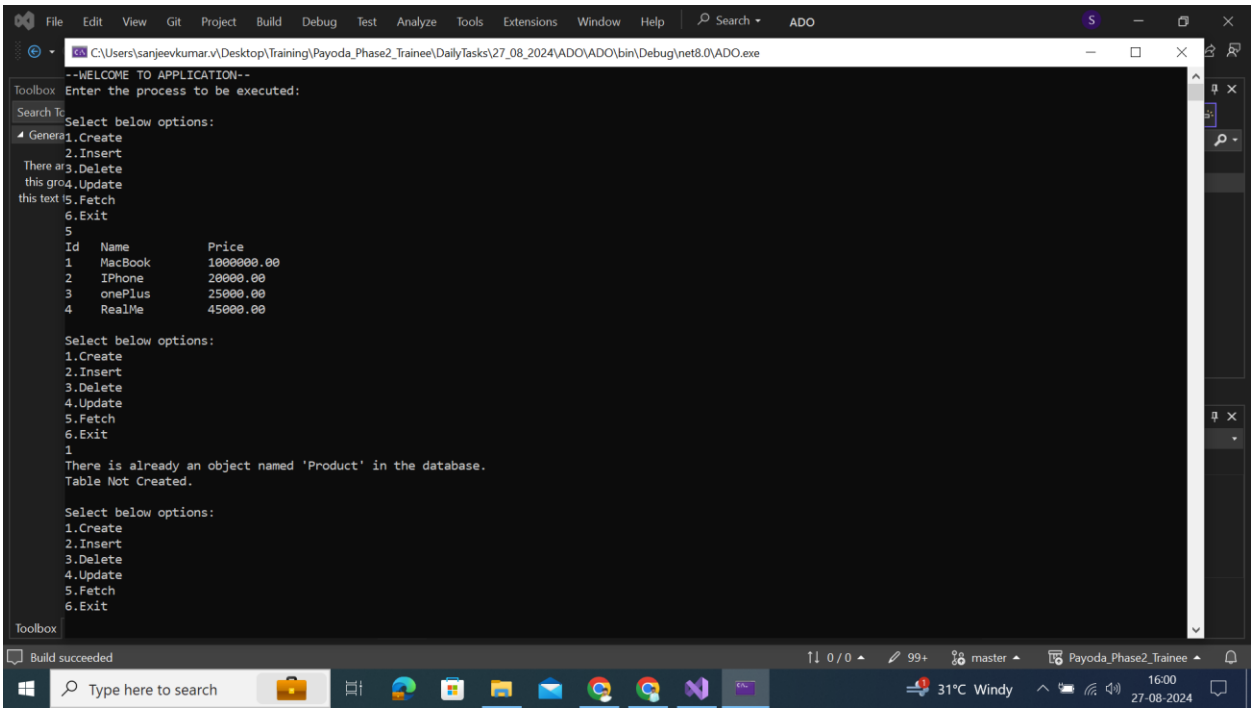
```
                Console.WriteLine("Wrong option selected.");
                break;
            }
        }

        catch(Exception ex)
        {
          Console.WriteLine(ex.Message);
        }
      }while (choice != 6);
    }


    private static SqlConnection GetConnection()
    {
      conn = new SqlConnection("data
source=PTSQLTESTDB01;database=KUMAR;integrated security=true;");
      return conn;
    }

    public static Boolean Create()
    {
      try
      {
        using (conn = GetConnection())
        {
          SqlCommand cmd = new SqlCommand("create table Product(id int primary
key, name varchar(50), price decimal(10,2))", conn);
          conn.Open();
          int val = cmd.ExecuteNonQuery();
          //Console.WriteLine("Table Create successfully");
          return true;
        }
      }
      catch (Exception ex)
      {
        Console.WriteLine(ex.Message);
      }
```

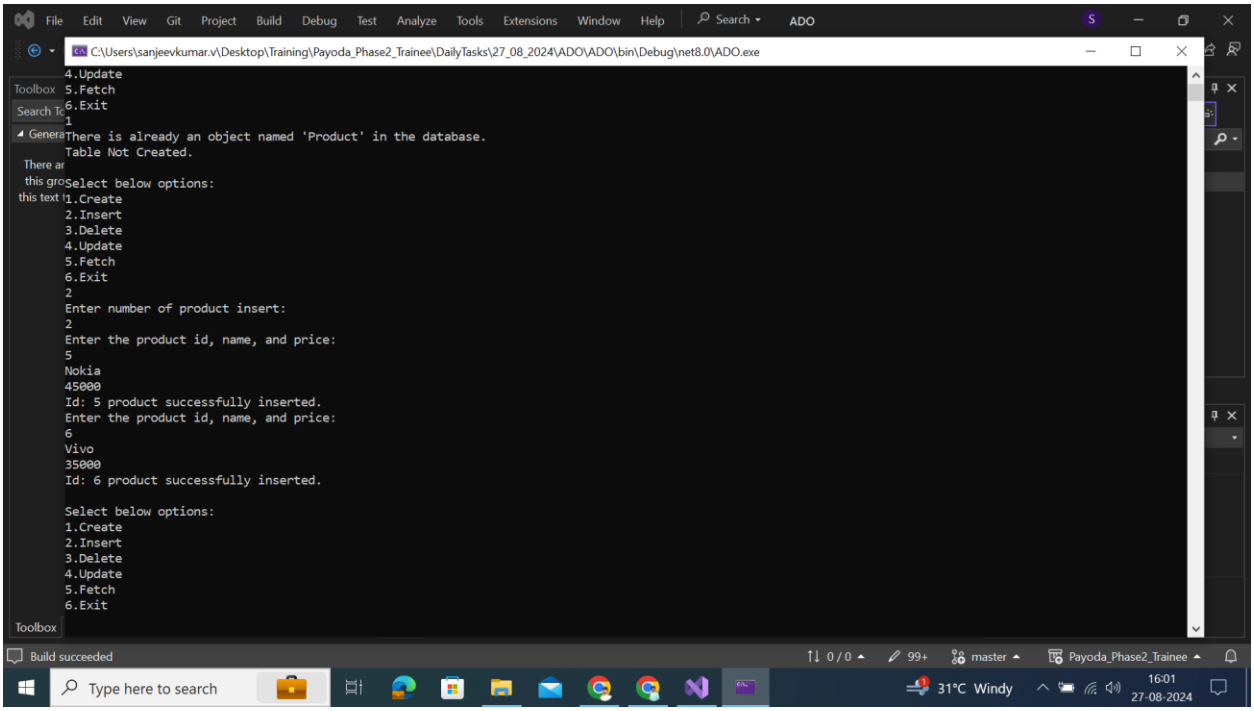
```
    return false;
  }

  public static Boolean Insert(int id, string name, decimal price)
  {
    using (conn = GetConnection())
    {

      SqlCommand cmd = new SqlCommand("insert into Product values(@id,
@name, @price)", conn);
      conn.Open();
      cmd.Parameters.AddWithValue("@id", id);
      cmd.Parameters.AddWithValue("@name", name);
      cmd.Parameters.AddWithValue("@price", price);

      int val = cmd.ExecuteNonQuery();

      if (val > 0)
      {
        return true;
        //Console.WriteLine("Inserted data.");
      }
      else
      {
        return false;
        //Console.WriteLine("Not Inserted.");
      }
    }
  }

  private static Boolean Update(int id, decimal price)
  {
    try
    {
      using (conn = GetConnection())
      {
        cmd = new SqlCommand("update product set price = @price where id =
@id", conn);
```

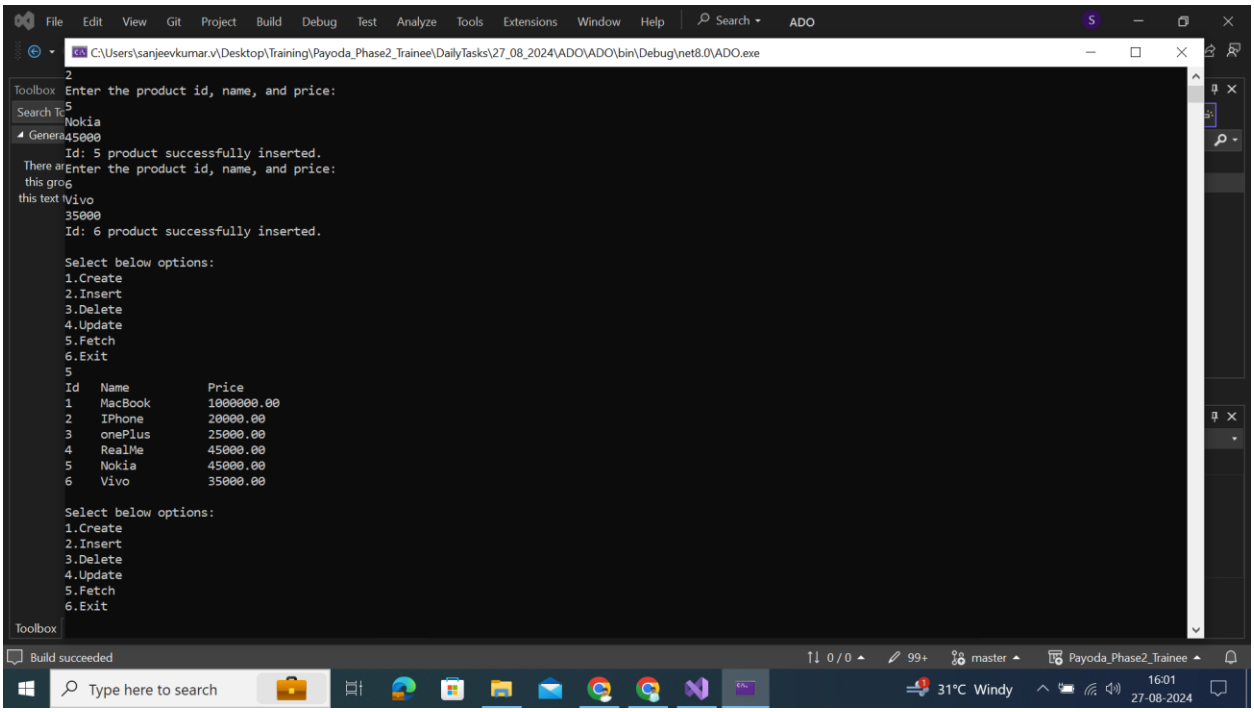
```
            conn.Open();
            cmd.Parameters.AddWithValue("@price", price);
            cmd.Parameters.AddWithValue("@id", id);

            return cmd.ExecuteNonQuery() > 0;
        }
    }
    catch (Exception ex)
    {
        Console.WriteLine(ex.Message);
        Console.WriteLine(ex.StackTrace);
    }
    return false;
}

private static Boolean Delete(int id)
{
    try
    {
        using(conn = GetConnection())
        {
            cmd = new SqlCommand("delete from product where id = @id", conn);
            conn.Open();

            cmd.Parameters.AddWithValue("@id", id);
            return cmd.ExecuteNonQuery() > 0;
        }
    }
    catch(Exception ex)
    {
        Console.WriteLine(ex.Message);
    }
    return false;
}
private static List<string> Fetch
{
    get
    {
```

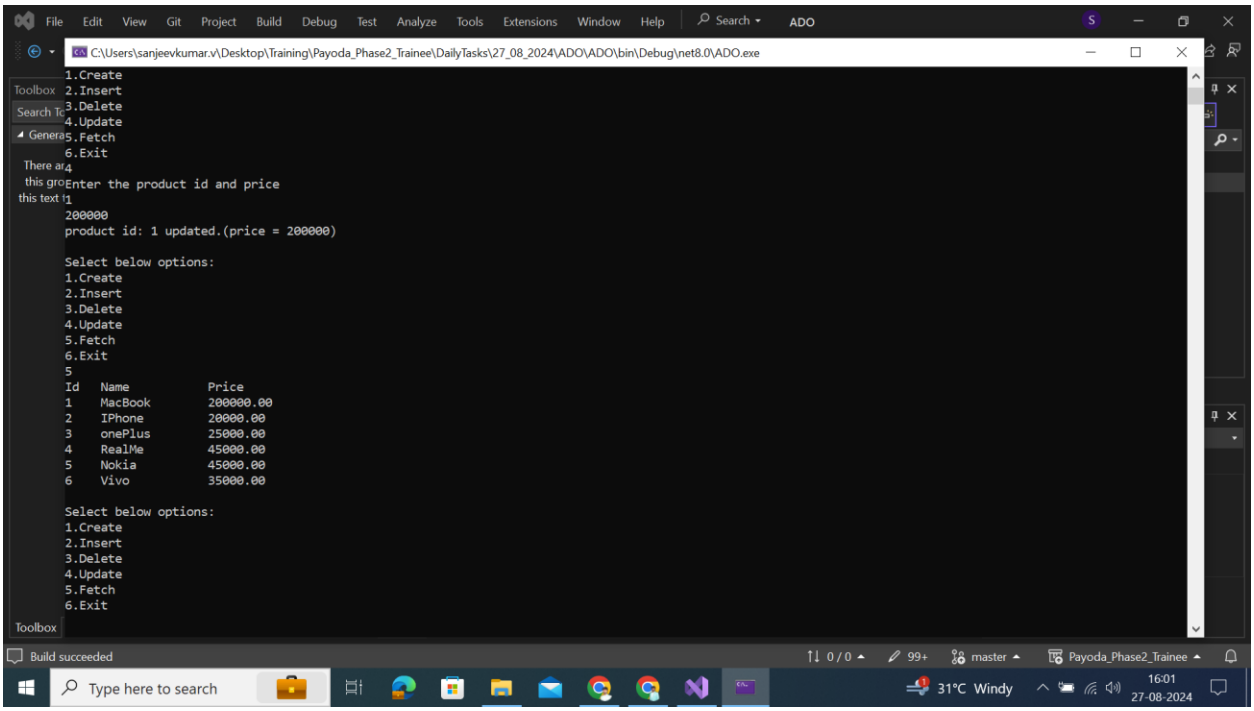
```
        using (conn = GetConnection())
        {
          cmd = new SqlCommand("select * from Product", conn);
          conn.Open();
          SqlDataReader sdr = cmd.ExecuteReader();

          while (sdr.Read())
          {
            list.Add(String.Format("{0, -5}{1, -15}{2, -15}", sdr[0].ToString(),
sdr[1].ToString(), sdr[2].ToString()));
          }
          return list;
        }
      }
    }
}
```

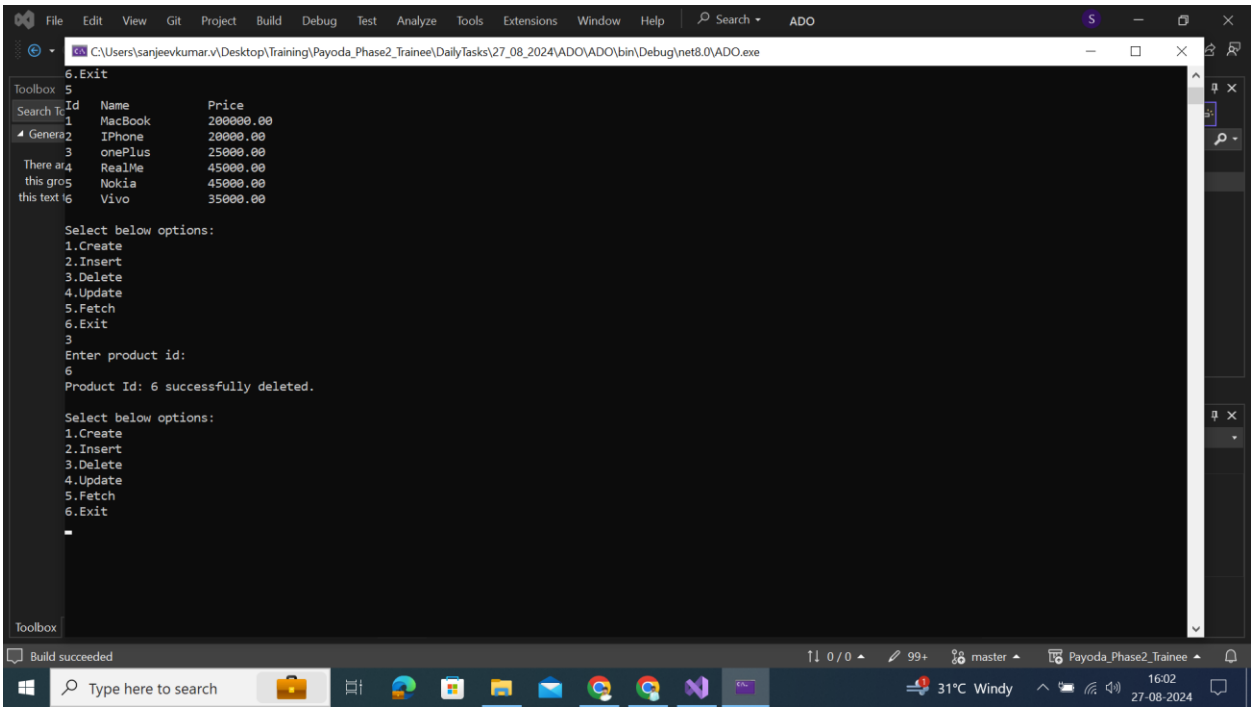
Output:

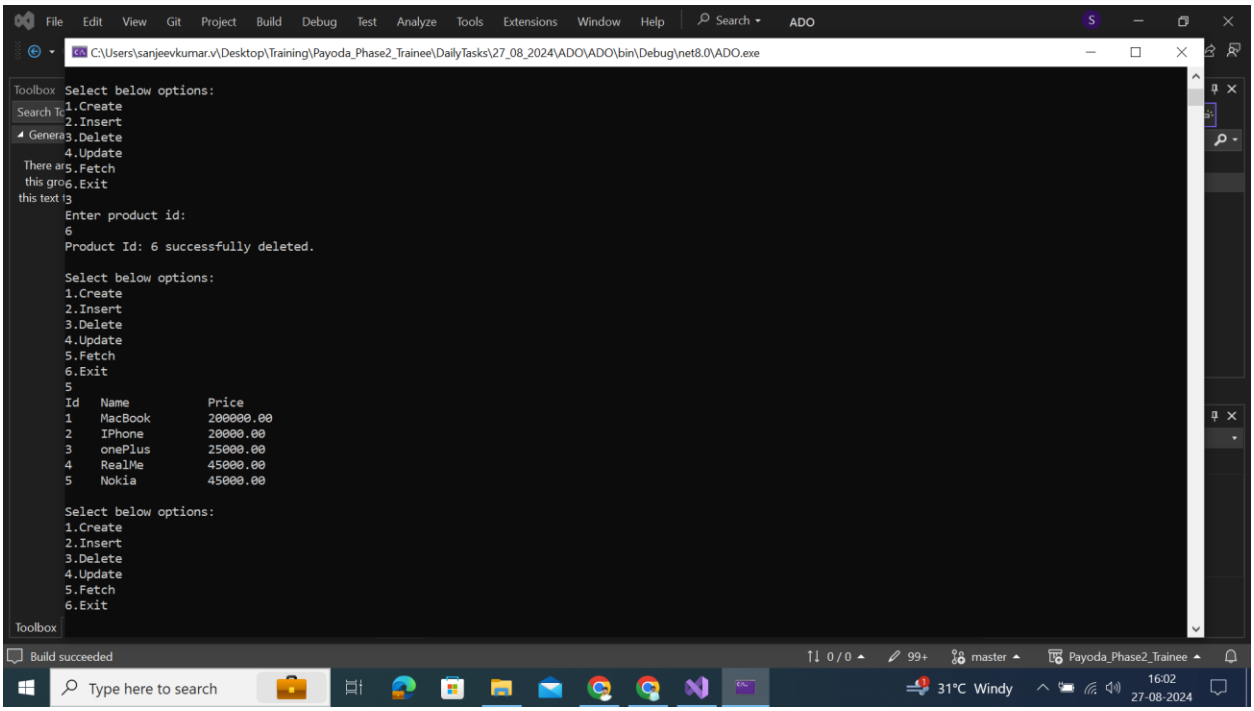


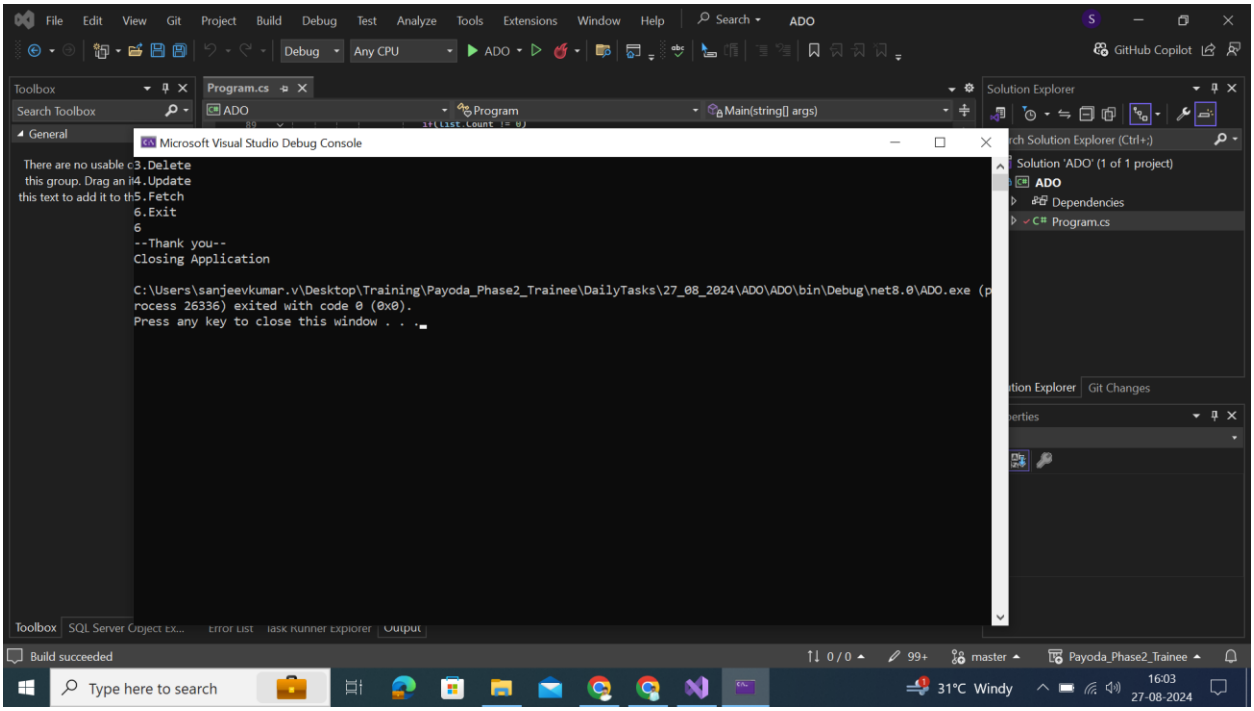

File Edit View Git Project Build Debug Test Analyze Tools Extensions Window Help Search ADO
C:\Users\sanjeevkumar.v\Desktop\Training\Payoda_Phase2_Trainee\DailyTasks\27_08_2024\ADO\ADO\bin\Debug\net8.0\ADO.exe
4.Update
5.Fetch
6.Exit
1
There is already an object named 'Product' in the database.
Table Not Created.
Select below options:
1.Create
2.Insert
3.Delete
4.Update
5.Fetch
6.Exit
2
Enter number of product insert:
2
Enter the product id, name, and price:
5
Nokia
45000
Id: 5 product successfully inserted.
Enter the product id, name, and price:
6
Vivo
35000
Id: 6 product successfully inserted.
Select below options:
1.Create
2.Insert
3.Delete
4.Update
5.Fetch
6.Exit
Toolbox
Build succeeded
Type here to search
31°C Windy
16:01
27-08-2024


File Edit View Git Project Build Debug Test Analyze Tools Extensions Window Help Search ADO
C:\Users\sanjeevkumar.v\Desktop\Training\Payoda_Phase2_Trainee\DailyTasks\27_08_2024\ADO\ADO\bin\Debug\net8.0\ADO.exe
2
Enter the product id, name, and price:
5
Nokia
45000
Id: 5 product successfully inserted.
Enter the product id, name, and price:
6
Vivo
35000
Id: 6 product successfully inserted.
Select below options:
1.Create
2.Insert
3.Delete
4.Update
5.Fetch
6.Exit
5
Id Name Price
1 MacBook 1000000.00
2 IPhone 20000.00
3 onePlus 25000.00
4 RealMe 45000.00
5 Nokia 45000.00
6 Vivo 35000.00
Select below options:
1.Create
2.Insert
3.Delete
4.Update
5.Fetch
6.Exit
Toolbox
Build succeeded
Type here to search
31°C Windy
16:01
27-08-2024


File Edit View Git Project Build Debug Test Analyze Tools Extensions Window Help Search ADO
C:\Users\sanjeevkumar.v\Desktop\Training\Payoda_Phase2_Trainee\DailyTasks\27_08_2024\ADO\ADO\bin\Debug\net8.0\ADO.exe
1.Create
2.Insert
3.Delete
4.Update
5.Fetch
6.Exit
4
Enter the product id and price
1
200000
product id: 1 updated.(price = 200000)
Select below options:
1.Create
2.Insert
3.Delete
4.Update
5.Fetch
6.Exit
5
Id Name Price
1 MacBook 200000.00
2 IPhone 20000.00
3 onePlus 25000.00
4 RealMe 45000.00
5 Nokia 45000.00
6 Vivo 35000.00
Select below options:
1.Create
2.Insert
3.Delete
4.Update
5.Fetch
6.Exit
Toolbox
Build succeeded
master
Payoda_Phase2_Trainee
Type here to search
31°C Windy
16:01
27-08-2024


File Edit View Git Project Build Debug Test Analyze Tools Extensions Window Help Search ADO
C:\Users\sanjeevkumar.v\Desktop\Training\Payoda_Phase2_Trainee\DailyTasks\27_08_2024\ADO\ADO\bin\Debug\net8.0\ADO.exe
6.Exit
5
Id Name Price
1 MacBook 200000.00
2 IPhone 20000.00
3 onePlus 25000.00
4 RealMe 45000.00
5 Nokia 45000.00
6 Vivo 35000.00
Select below options:
1.Create
2.Insert
3.Delete
4.Update
5.Fetch
6.Exit
3
Enter product id:
6
Product Id: 6 successfully deleted.
Select below options:
1.Create
2.Insert
3.Delete
4.Update
5.Fetch
6.Exit
Toolbox
Build succeeded
master
Payoda_Phase2_Trainee
Type here to search
31°C Windy
16:02
27-08-2024





2. WindowForm and ADO Application:

Code:

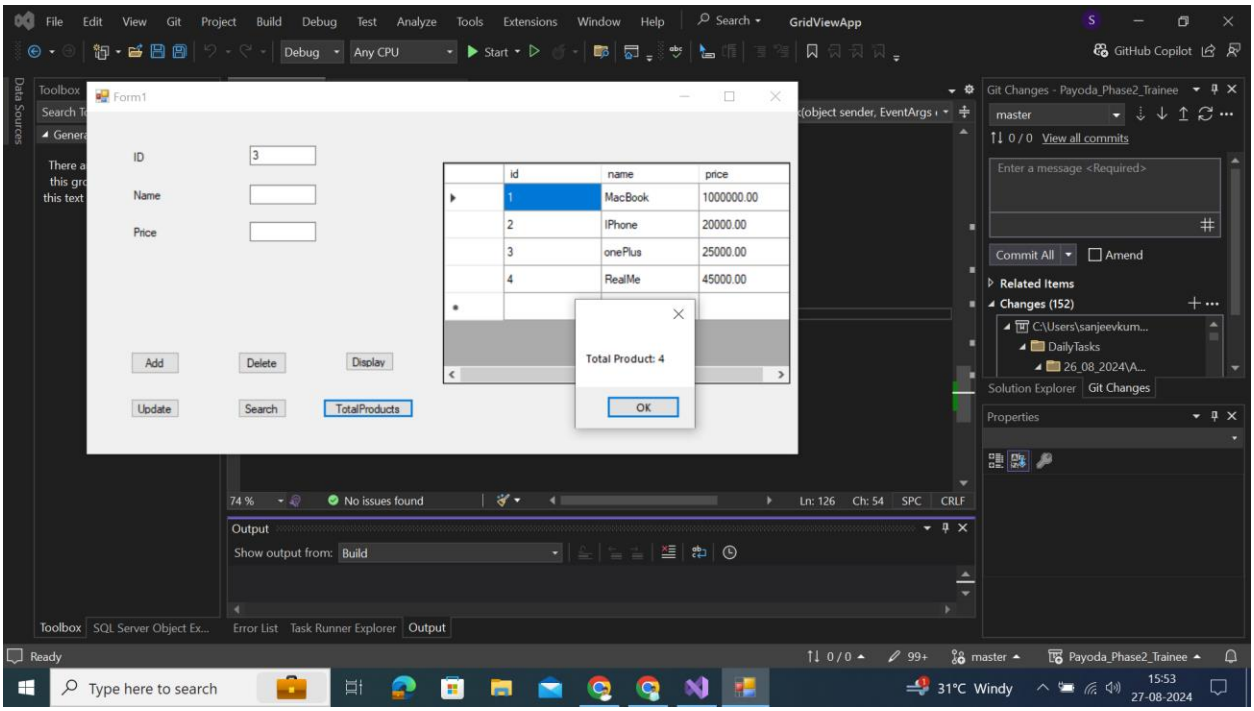
```
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Data.SqlClient;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows.Forms;

namespace GridViewApp
{
  public partial class Form1 : Form
  {
    private static SqlConnection conn = null;
    private static SqlCommand cmd = null;
    private static int id;
    private static string name;
    private static decimal price;
    public Form1()
    {
      InitializeComponent();
    }

    private static SqlConnection GetConnection()
    {
      SqlConnection conn = new SqlConnection("data
source=PTSQLTESTDB01;database=KUMAR;integrated security=true;");
      return conn;
    }
    private void Form1_Load(object sender, EventArgs e)
    {
      using(conn = GetConnection())
      {
        cmd = new SqlCommand("select * from product", conn);
        conn.Open();
        SqlDataReader sdr = cmd.ExecuteReader();
```

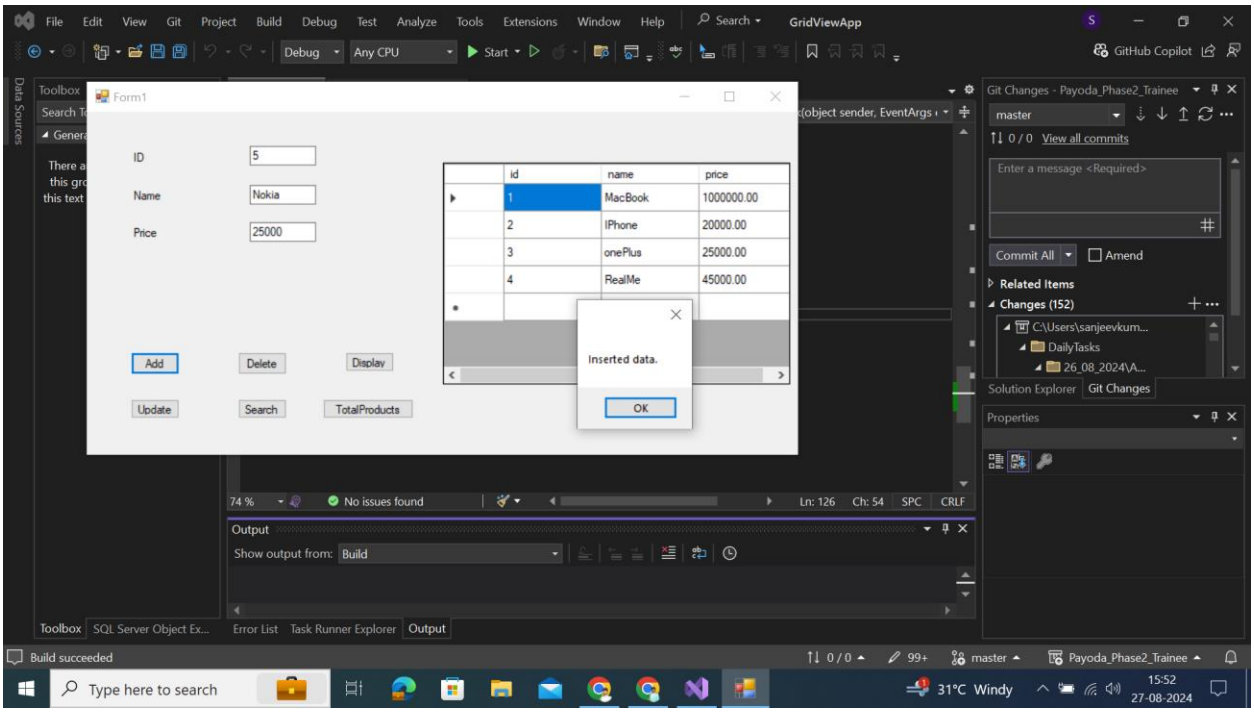
```
            DataTable dt = new DataTable();
            dt.Load(sdr);
            dataGridView1.DataSource = dt;
        }
    }

    private void button1_Click(object sender, EventArgs e)
    {
        using (conn = GetConnection())
        {
            cmd = new SqlCommand("insert into product values(@id, @name,
@price)", conn);
            conn.Open();
            id = Convert.ToInt32(textBox1.Text);
            name = Convert.ToString(textBox2.Text);
            price = Convert.ToDecimal(textBox3.Text);
            cmd.Parameters.AddWithValue("@id", id);
            cmd.Parameters.AddWithValue("@name", name);
            cmd.Parameters.AddWithValue("@price", price);

            int count = cmd.ExecuteNonQuery();
            if(count > 0) MessageBox.Show("Inserted data.");


            Form1_Load(sender, e);
        }
    }

    private void button2_Click(object sender, EventArgs e)
    {
        using (conn = GetConnection())
        {
            cmd = new SqlCommand("delete from product where id = @id", conn);
            conn.Open();
            id = Convert.ToInt32(textBox1.Text);

            cmd.Parameters.AddWithValue("@id", id);
```

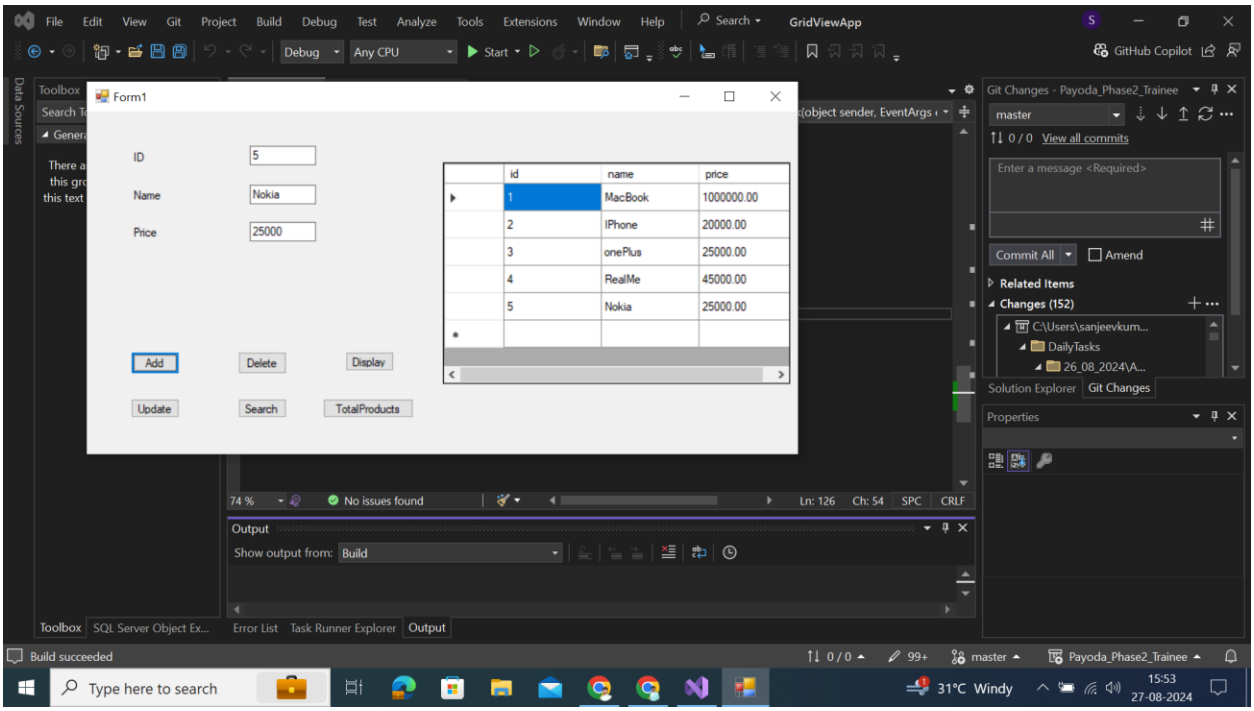
```
            int count = cmd.ExecuteNonQuery();
            if (count > 0) MessageBox.Show("Deleted data.");


            Form1_Load(sender, e);
        }
    }
    private void button3_Click(object sender, EventArgs e)
    {
        using (conn = GetConnection())
        {
            cmd = new SqlCommand("update product set price = @price where id =
@id", conn);
            conn.Open();
            id = Convert.ToInt32(textBox1.Text);
            price = Convert.ToDecimal(textBox3.Text);

            cmd.Parameters.AddWithValue("@id", id);
            cmd.Parameters.AddWithValue("@price", price);

            int count = cmd.ExecuteNonQuery();
            if (count > 0) MessageBox.Show("Updated data.");


            Form1_Load(sender, e);
        }
    }
    private void button4_Click(object sender, EventArgs e)
    {
        using (conn = GetConnection())
        {
            cmd = new SqlCommand("select * from product where id = @id", conn);
            conn.Open();

            id = Convert.ToInt32(textBox1.Text);
            cmd.Parameters.AddWithValue("@id", id);

            SqlDataReader sdr = cmd.ExecuteReader();
```

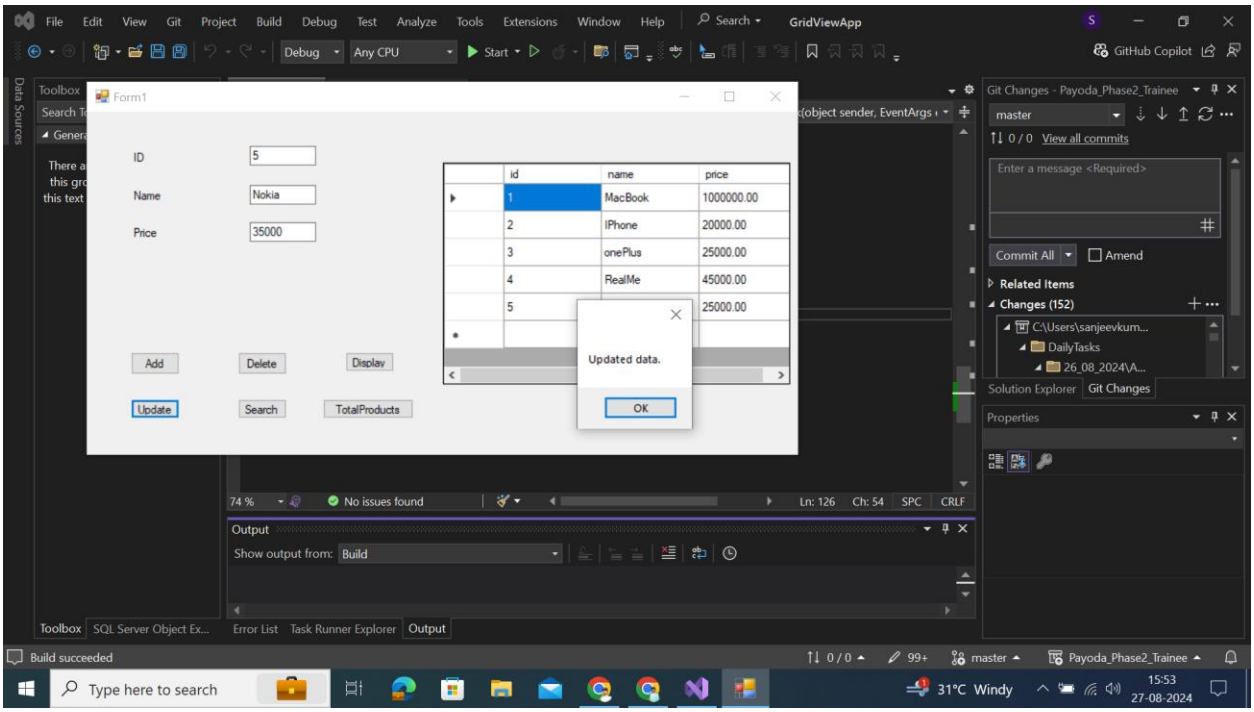
```
            DataTable dt = new DataTable();
            dt.Load(sdr);
            dataGridView1.DataSource = dt;
        }
    }
    private void button5_Click(object sender, EventArgs e)
    {
        Form1_Load(sender, e);
    }

    private void Button6_Click(object sender, EventArgs e)
    {
        using (conn = GetConnection())
        {
            cmd = new SqlCommand("select count(*) from product", conn);
            conn.Open();

            int count = Convert.ToInt32(cmd.ExecuteScalar());

            MessageBox.Show($"Total Product: {count}");
        }
    }
  }
}
```

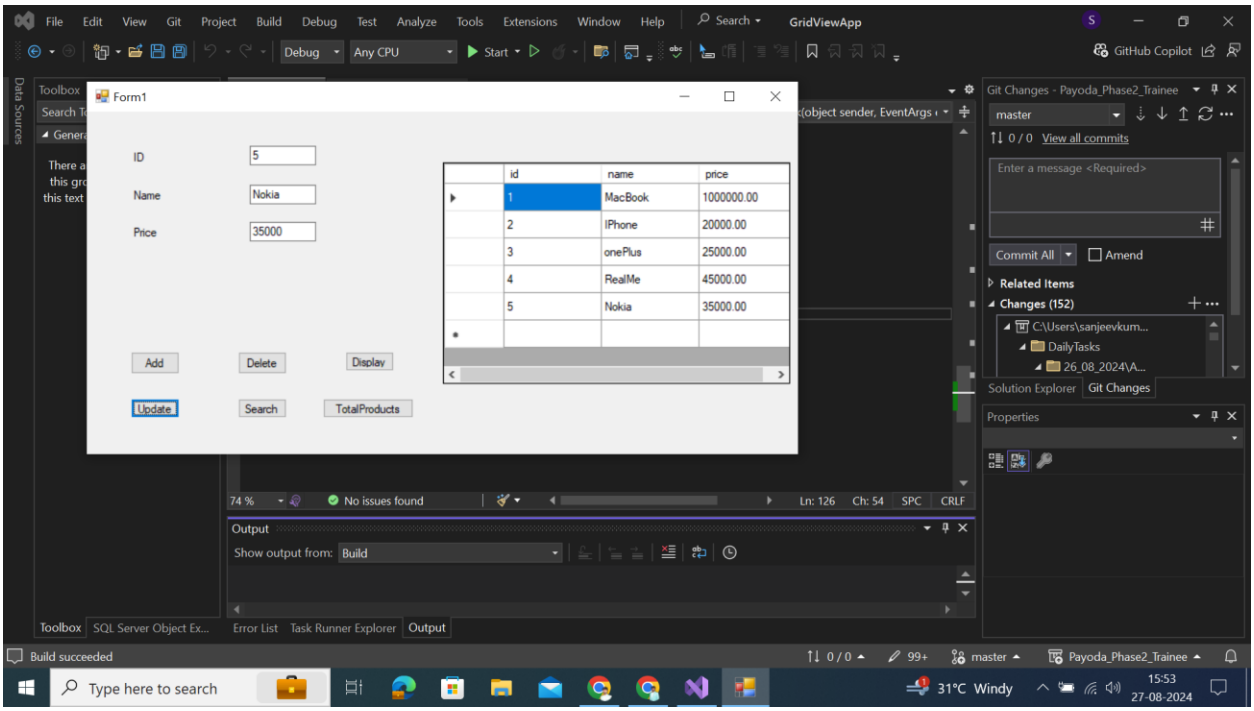
Output:

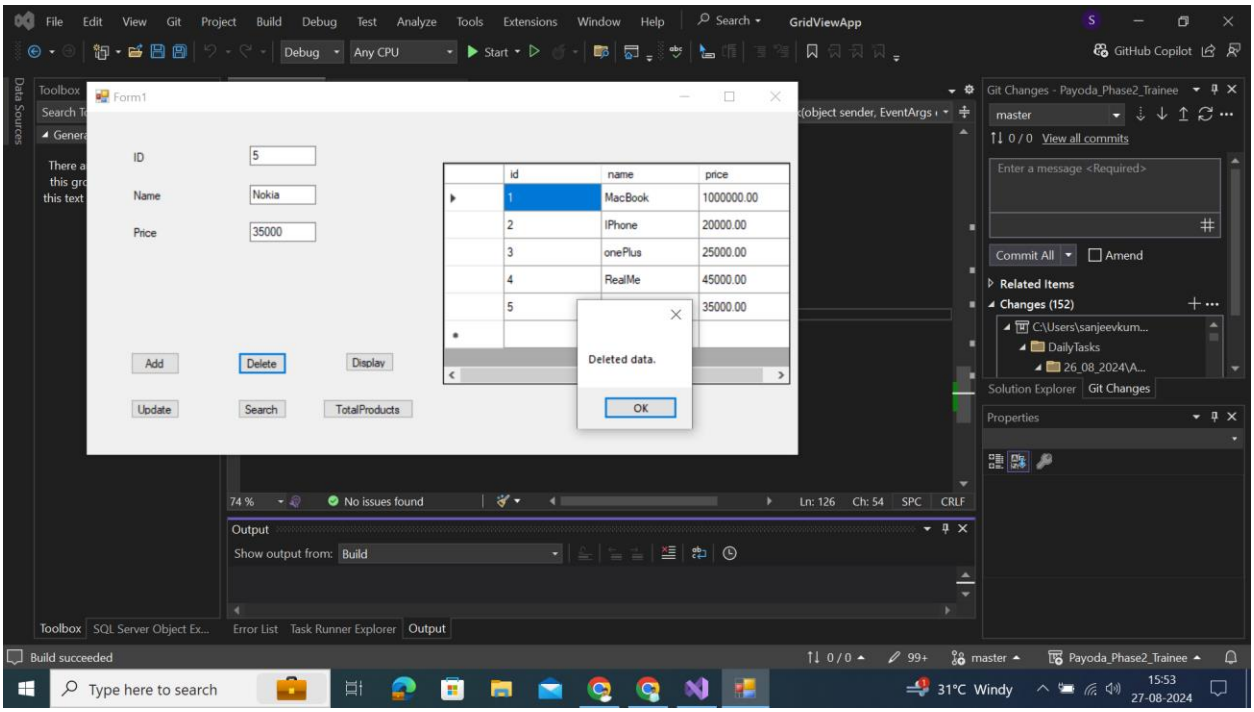

File Edit View Git Project Build Debug Test Analyze Tools Extensions Window Help
Search
GridViewApp
Debug
Any CPU
Start
GitHub Copilot
Toolbox
Form1
ID
3
Name
Price
Add
Delete
Display
Update
Search
TotalProducts
id
name
price
1
MacBook
1000000.00
2
IPhone
20000.00
3
onePlus
25000.00
4
RealMe
45000.00
Total Product: 4
OK
Git Changes - Payoda_Phase2_Trainee
master
0 / 0
View all commits
Enter a message <Required>
Commit All
Amend
Related Items
Changes (152)
C:\Users\sanjeevkum...
DailyTasks
26_08_2024\A...
Solution Explorer
Git Changes
Properties
74 %
No issues found
Ln: 126
Ch: 54
SPC
CRLF
Output
Show output from:
Build
Toolbox
SQL Server Object Ex...
Error List
Task Runner Explorer
Output
Ready
master
Payoda_Phase2_Trainee
Type here to search
31°C Windy
15:53
27-08-2024

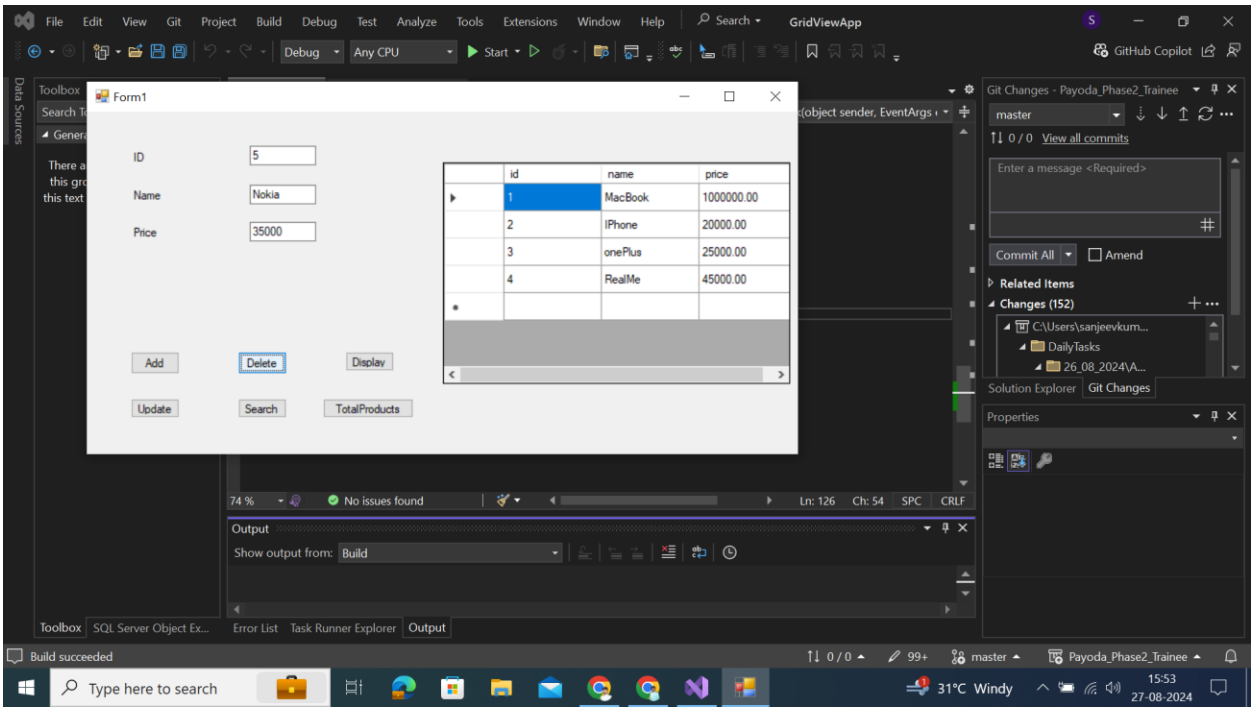

File Edit View Git Project Build Debug Test Analyze Tools Extensions Window Help
Search
GridViewApp
Debug
Any CPU
Start
GitHub Copilot
Toolbox
Form1
ID
5
Name
Nokia
Price
25000
Add
Delete
Display
Update
Search
TotalProducts
id
name
price
1
MacBook
1000000.00
2
IPhone
20000.00
3
onePlus
25000.00
4
RealMe
45000.00
Inserted data.
OK
Git Changes - Payoda_Phase2_Trainee
master
0 / 0
View all commits
Enter a message <Required>
Commit All
Amend
Related Items
Changes (152)
C:\Users\sanjeevkum...
DailyTasks
26_08_2024\A...
Solution Explorer
Git Changes
Properties
74 %
No issues found
Ln: 126
Ch: 54
SPC
CRLF
Output
Show output from:
Build
Toolbox
SQL Server Object Ex...
Error List
Task Runner Explorer
Output
Build succeeded
master
Payoda_Phase2_Trainee
Type here to search
31°C Windy
15:52
27-08-2024

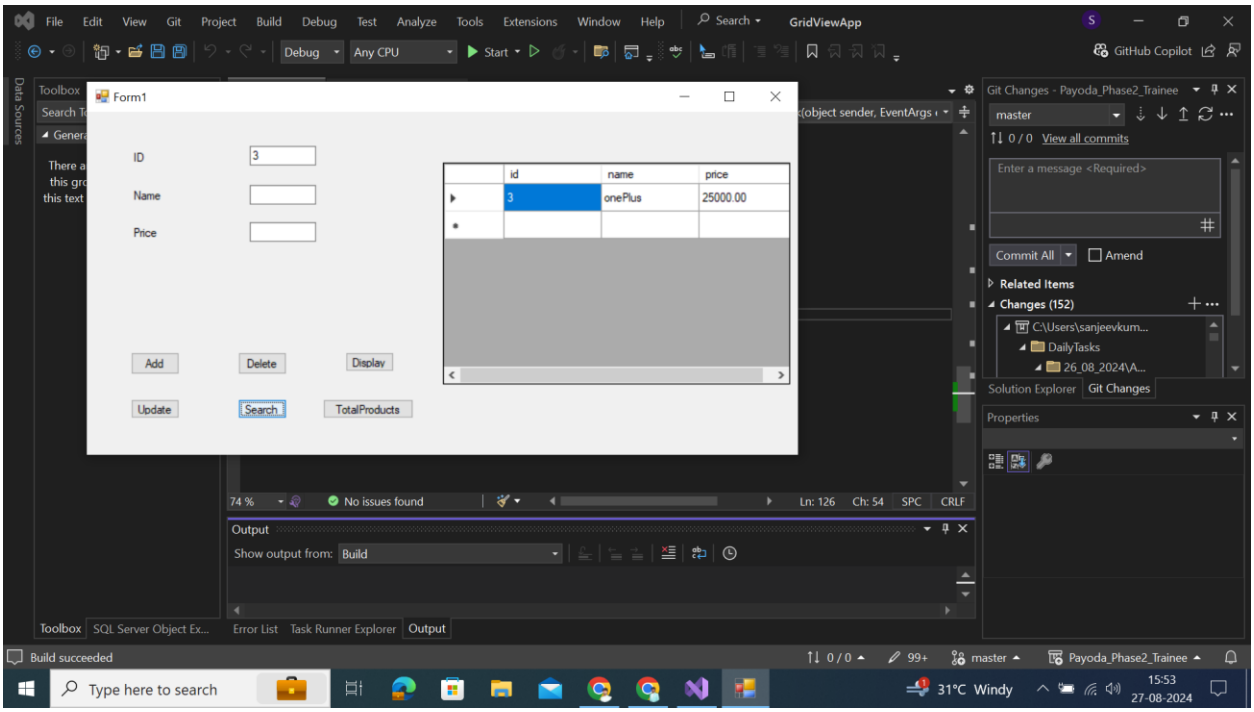

File Edit View Git Project Build Debug Test Analyze Tools Extensions Window Help
GridViewApp
Debug
Any CPU
Start
GitHub Copilot
Toolbox
Form1
ID
5
Name
Nokia
Price
25000
Add
Delete
Display
Update
Search
TotalProducts
id
name
price
1
MacBook
1000000.00
2
IPhone
20000.00
3
onePlus
25000.00
4
RealMe
45000.00
5
Nokia
25000.00
Git Changes - Payoda_Phase2_Trainee
master
0 / 0
View all commits
Enter a message <Required>
Commit All
Amend
Related Items
Changes (152)
C:\Users\sanjeevkum...
DailyTasks
26_08_2024\A...
Solution Explorer
Git Changes
Properties
74 %
No issues found
Ln: 126
Ch: 54
SPC
CRLF
Output
Show output from:
Build
Toolbox
SQL Server Object Ex...
Error List
Task Runner Explorer
Output
Build succeeded
master
Payoda_Phase2_Trainee
Type here to search
31°C Windy
15:53
27-08-2024

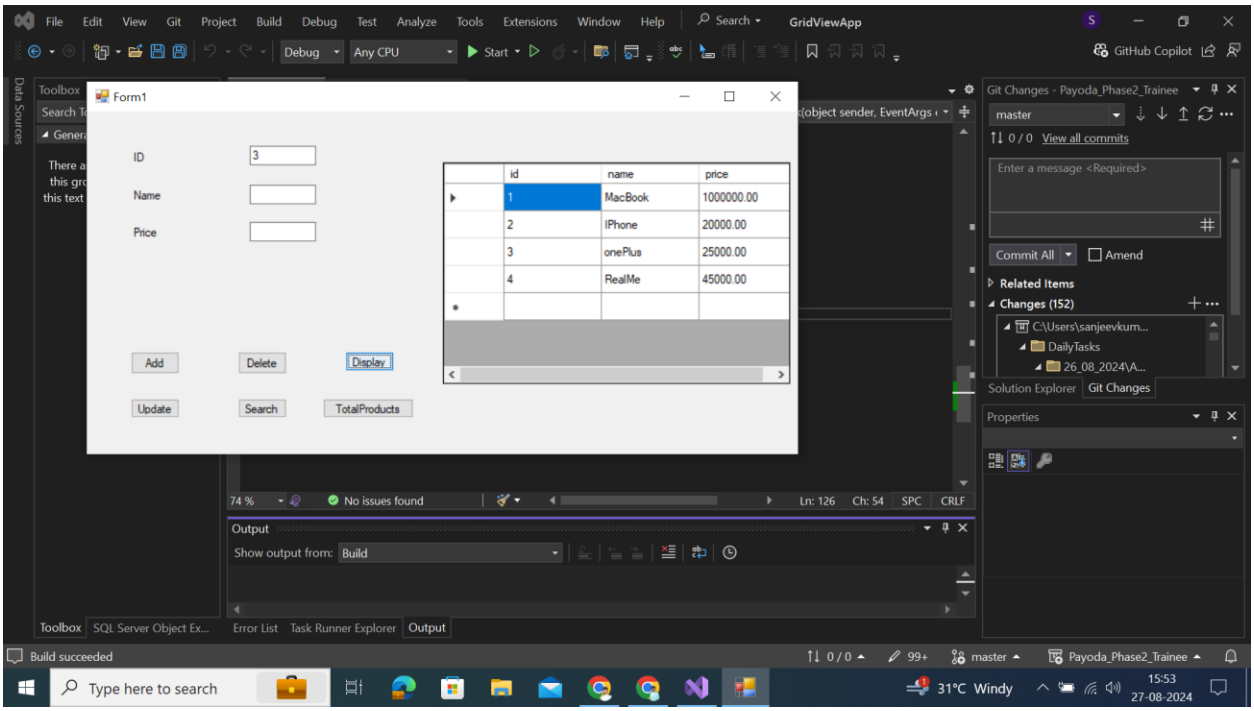

File Edit View Git Project Build Debug Test Analyze Tools Extensions Window Help
GridViewApp
Debug
Any CPU
Start
GitHub Copilot
Toolbox
Form1
ID
5
Name
Nokia
Price
35000
Add
Delete
Display
Update
Search
TotalProducts
id
name
price
1
MacBook
1000000.00
2
IPhone
20000.00
3
onePlus
25000.00
4
RealMe
45000.00
5
25000.00
Updated data.
OK
Git Changes - Payoda_Phase2_Trainee
master
0 / 0
View all commits
Enter a message <Required>
Commit All
Amend
Related Items
Changes (152)
C:\Users\sanjeevkum...
DailyTasks
26_08_2024\A...
Solution Explorer
Git Changes
Properties
74 %
No issues found
Ln: 126
Ch: 54
SPC
CRLF
Output
Show output from:
Build
Toolbox
SQL Server Object Ex...
Error List
Task Runner Explorer
Output
Build succeeded
master
Payoda_Phase2_Trainee
Type here to search
31°C Windy
15:53
27-08-2024


File Edit View Git Project Build Debug Test Analyze Tools Extensions Window Help
GridViewApp
Debug
Any CPU
Start
GitHub Copilot
Toolbox
Form1
ID
5
Name
Nokia
Price
35000
Add
Delete
Display
Update
Search
TotalProducts
id
name
price
1
MacBook
1000000.00
2
IPhone
20000.00
3
onePlus
25000.00
4
RealMe
45000.00
5
Nokia
35000.00
Git Changes - Payoda_Phase2_Trainee
master
0 / 0
View all commits
Enter a message <Required>
Commit All
Amend
Related Items
Changes (152)
C:\Users\sanjeevkum...
DailyTasks
26_08_2024\A...
Solution Explorer
Git Changes
Properties
74 %
No issues found
Ln: 126
Ch: 54
SPC
CRLF
Output
Show output from:
Build
Toolbox
SQL Server Object Ex...
Error List
Task Runner Explorer
Output
Build succeeded
0 / 0
99+
master
Payoda_Phase2_Trainee
Type here to search
31°C Windy
15:53
27-08-2024


File Edit View Git Project Build Debug Test Analyze Tools Extensions Window Help
GridViewApp
Debug
Any CPU
Start
GitHub Copilot
Toolbox
Form1
ID
5
Name
Nokia
Price
35000
Add
Delete
Display
Update
Search
TotalProducts
id
name
price
1
MacBook
1000000.00
2
IPhone
20000.00
3
onePlus
25000.00
4
RealMe
45000.00
5
35000.00
Deleted data.
OK
Git Changes - Payoda_Phase2_Trainee
master
0 / 0
View all commits
Enter a message <Required>
Commit All
Amend
Related Items
Changes (152)
C:\Users\sanjeevkum...
DailyTasks
26_08_2024\A...
Solution Explorer
Git Changes
Properties
74 %
No issues found
Ln: 126
Ch: 54
SPC
CRLF
Output
Show output from:
Build
Toolbox
SQL Server Object Ex...
Error List
Task Runner Explorer
Output
Build succeeded
0 / 0
99+
master
Payoda_Phase2_Trainee
Type here to search
31°C Windy
15:53
27-08-2024


File Edit View Git Project Build Debug Test Analyze Tools Extensions Window Help
GridViewApp
Debug
Any CPU
Start
GitHub Copilot
Toolbox
Form1
ID
5
Name
Nokia
Price
35000
Add
Delete
Display
Update
Search
TotalProducts
id name price
1 MacBook 1000000.00
2 IPhone 20000.00
3 onePlus 25000.00
4 RealMe 45000.00
Git Changes - Payoda_Phase2_Trainee
master
0 / 0 View all commits
Enter a message <Required>
Commit All
Amend
Related Items
Changes (152)
C:\Users\sanjeevkum...
DailyTasks
26_08_2024\A...
Solution Explorer
Git Changes
Properties
74 %
No issues found
Ln: 126 Ch: 54 SPC CRLF
Output
Show output from: Build
Toolbox
SQL Server Object Ex...
Error List
Task Runner Explorer
Output
Build succeeded
0 / 0
99+
master
Payoda_Phase2_Trainee
Type here to search
31°C Windy
15:53
27-08-2024


File Edit View Git Project Build Debug Test Analyze Tools Extensions Window Help
GridViewApp
Debug
Any CPU
Start
GitHub Copilot
Toolbox
Form1
ID
3
Name
Price
Add
Delete
Display
Update
Search
TotalProducts
id name price
3 onePlus 25000.00
Git Changes - Payoda_Phase2_Trainee
master
0 / 0 View all commits
Enter a message <Required>
Commit All
Amend
Related Items
Changes (152)
C:\Users\sanjeevkum...
DailyTasks
26_08_2024\A...
Solution Explorer
Git Changes
Properties
74 %
No issues found
Ln: 126 Ch: 54 SPC CRLF
Output
Show output from: Build
Toolbox
SQL Server Object Ex...
Error List
Task Runner Explorer
Output
Build succeeded
0 / 0
99+
master
Payoda_Phase2_Trainee
Type here to search
31°C Windy
15:53
27-08-2024


File Edit View Git Project Build Debug Test Analyze Tools Extensions Window Help
Search
GridViewApp
Debug
Any CPU
Start
GitHub Copilot
Toolbox
Form1
ID
3
Name
Price
Add
Delete
Display
Update
Search
TotalProducts
id
name
price
1
MacBook
1000000.00
2
IPhone
20000.00
3
onePlus
25000.00
4
RealMe
45000.00
Git Changes - Payoda_Phase2_Trainee
master
0 / 0
View all commits
Enter a message <Required>
Commit All
Amend
Related Items
Changes (152)
C:\Users\sanjeevkum...
DailyTasks
26_08_2024\A...
Solution Explorer
Git Changes
Properties
74 %
No issues found
Ln: 126
Ch: 54
SPC
CRLF
Output
Show output from:
Build
Toolbox
SQL Server Object Ex...
Error List
Task Runner Explorer
Output
Build succeeded
0 / 0
99+
master
Payoda_Phase2_Trainee
Type here to search
31°C Windy
15:53
27-08-2024