INDUSTRIAL PRACTICAL TRAINING

PROJECT REPORT

INDEX

1.1. Description of the project

The project assigned to me was to create a Work Management System. I created it on Windows Forms App on Visual Studio (2019). The back-end coding was done in C# .Net language. The database is stored separately in SQL Server Management and is connected to the code in visual studio.

1.2. Objective of the project

"It is our attitude at the beginning of a difficult task which, more than anything else, will affect its successful outcome."
William James

Work management is more than just a task manager checking off items on a to-do list! It's an organized system for identifying, monitoring, and managing your work. Work management involves:

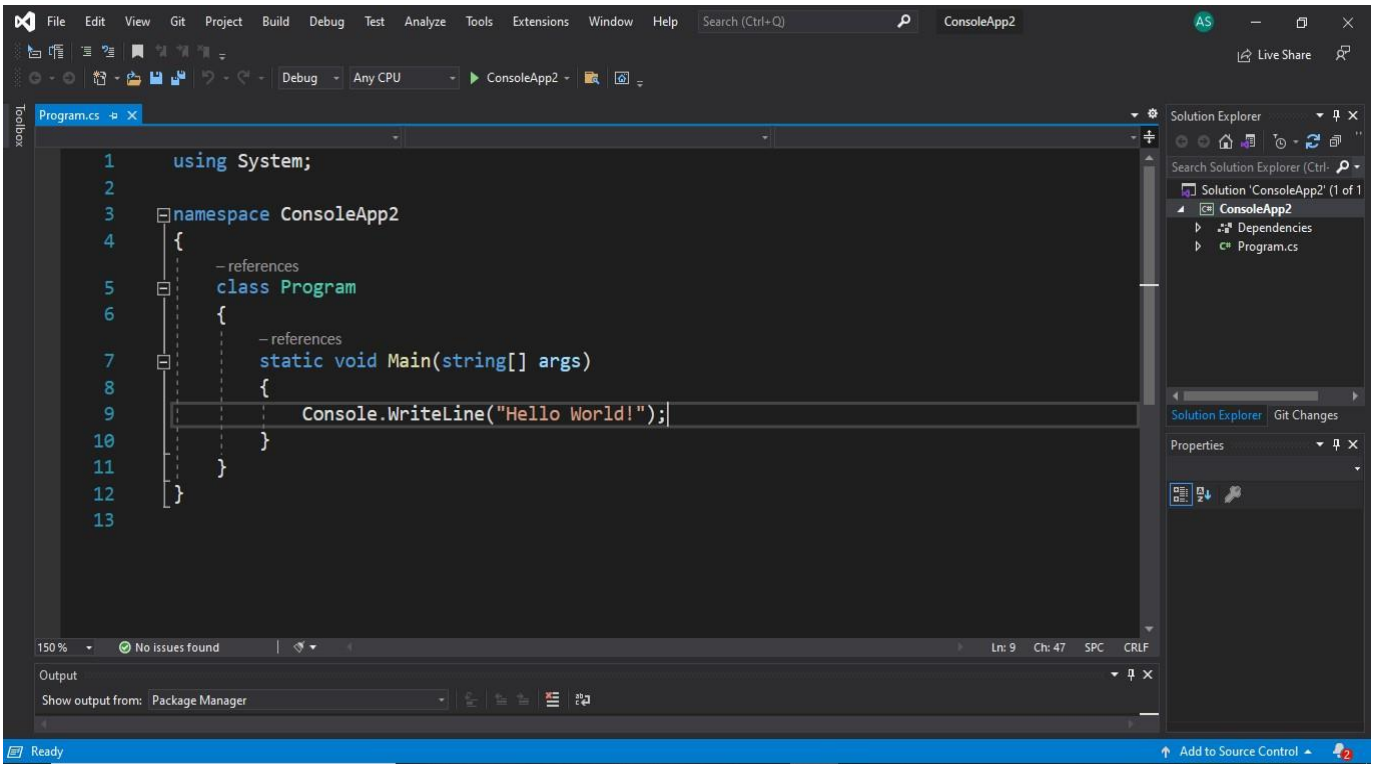
- Tracking task progress
- Setting deadlines
- Adjusting work schedules

This Work Management system helps organize our everyday tasks and keeps track of project deadlines.

1.3. Software

1.3.1. Visual Studio

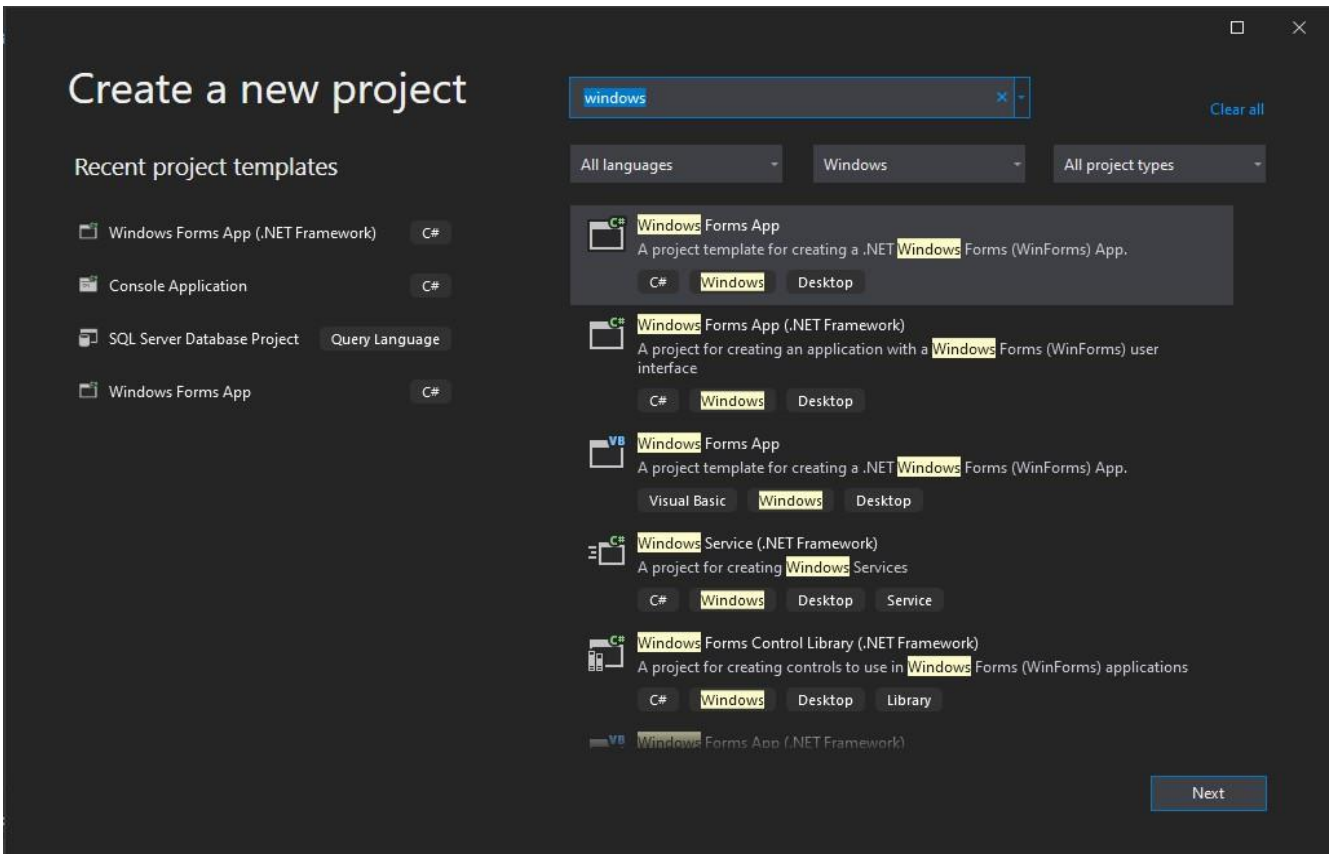
Visual Studio is an Integrated Development Environment (IDE) developed by Microsoft to develop GUI (Graphical User Interface), console, Web applications, web apps, mobile apps, cloud, and web services, etc. With the help of this IDE, you can create managed code as well as native code.
It is not a language-specific IDE as you can use this to write code in C#, C++, VB (Visual Basic), Python, JavaScript, and many more languages. It provides support for 36 different programming languages.

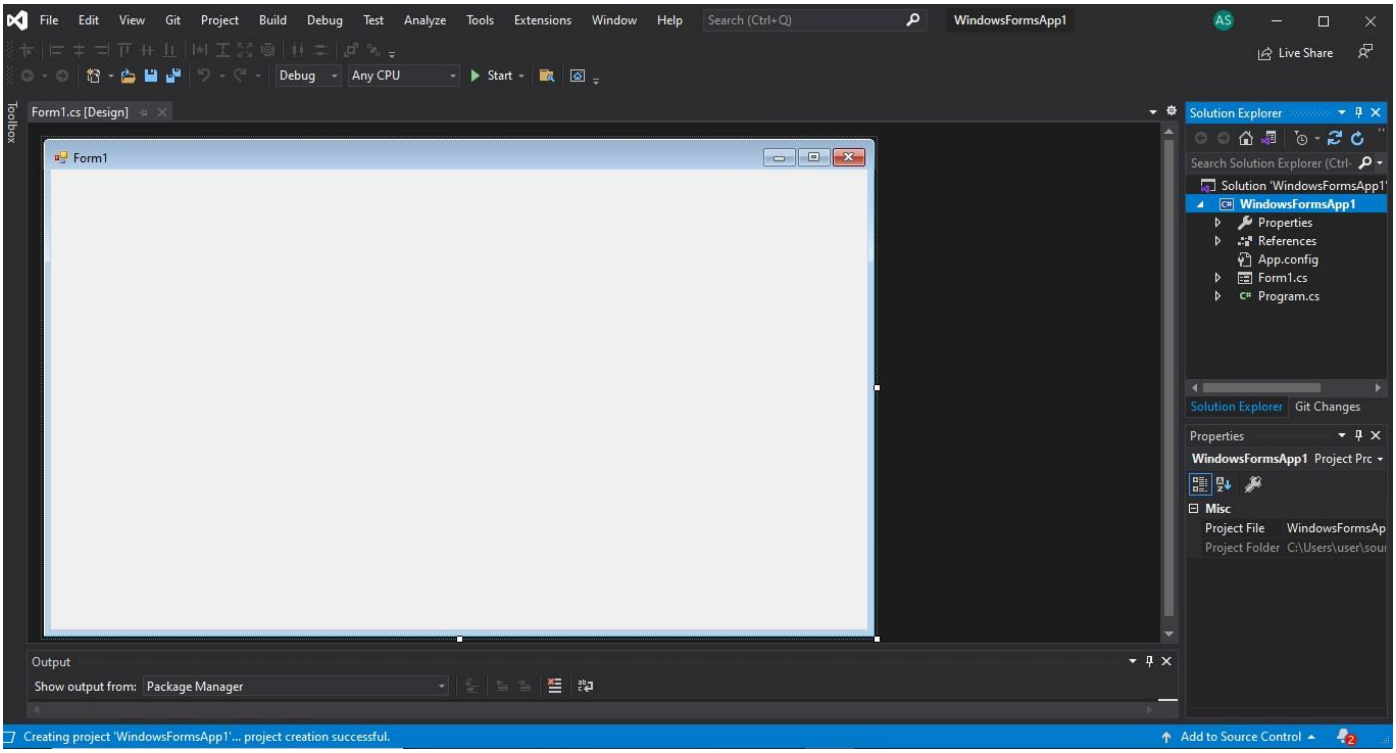


1.3.2. Introduction to C# Windows Forms Applications

Windows Forms is a Graphical User Interface (GUI) class library which is bundled in .Net Framework. Its main purpose is to provide an easier interface to develop the applications for desktop, tablet, PCs. It is also termed as the WinForms.

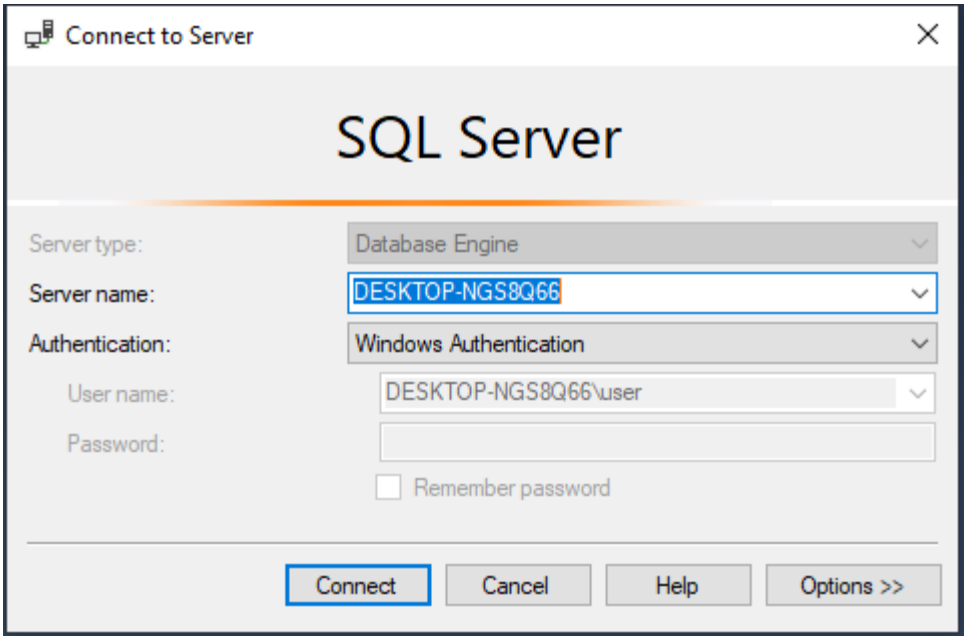
The applications which are developed by using Windows Forms or WinForms are known as the Windows Forms Applications that runs on the desktop computer. WinForms can be used only to develop the Windows Forms Applications not web applications. WinForms applications can contain the different type of controls like labels, list boxes, tooltip etc.

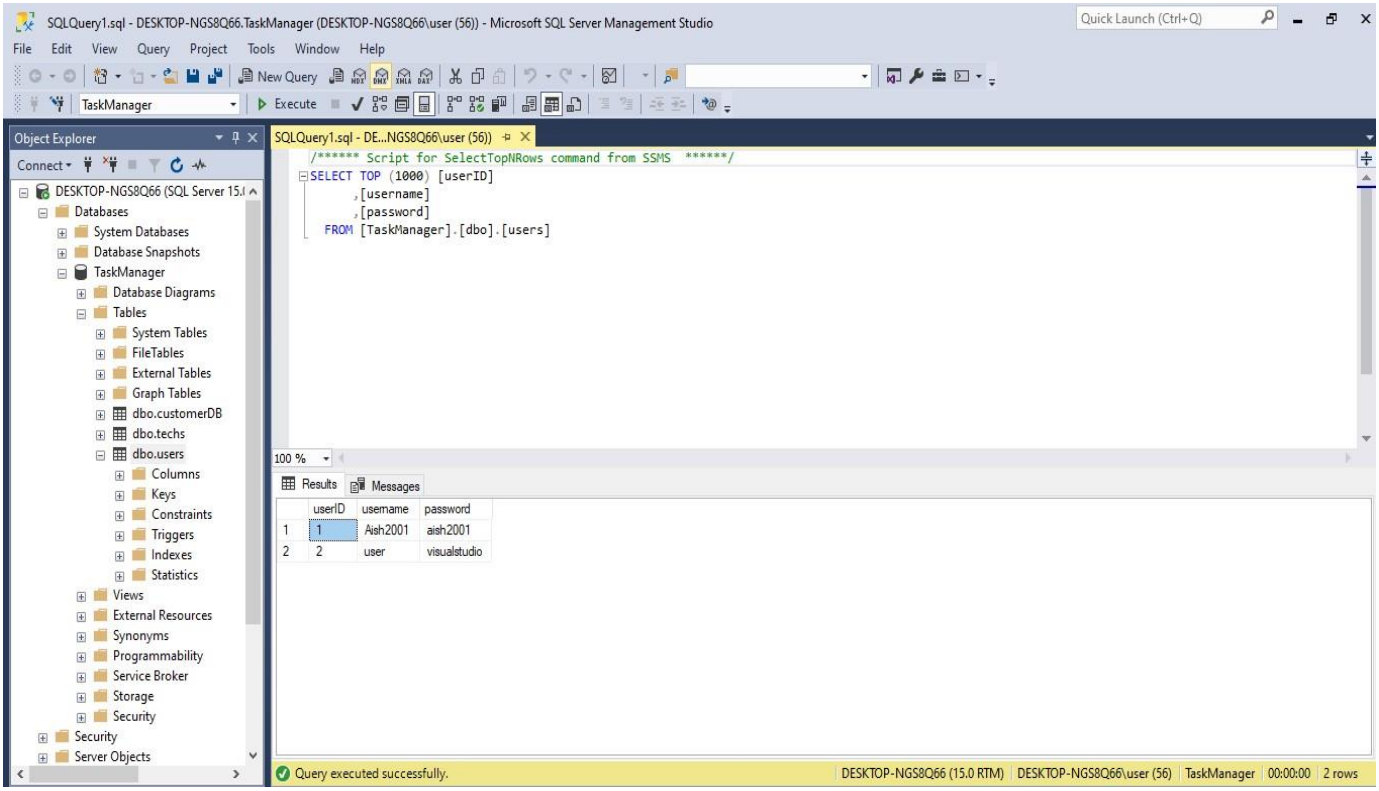




1.3.3. SQL Server Management Studio

SQL Server Management Studio (SSMS) is an integrated environment for managing any SQL infrastructure. Use SSMS to access, configure, manage, administer, and develop all components of SQL Server, Azure SQL Database, and Azure Synapse Analytics. SSMS provides a single comprehensive utility that combines a broad group of graphical tools with a number of rich script editors to provide access to SQL Server for developers and database administrators of all skill levels.


Connect to Server
SQL Server
Server type:
Database Engine
Server name:
DESKTOP-NGS8Q66
Authentication:
Windows Authentication
User name:
DESKTOP-NGS8Q66\user
Password:
Remember password
Connect
Cancel
Help
Options >>


SQLQuery1.sql - DESKTOP-NGS8Q66.TaskManager (DESKTOP-NGS8Q66\user (56)) - Microsoft SQL Server Management Studio
Quick Launch (Ctrl+Q)
File Edit View Query Project Tools Window Help
New Query
TaskManager
Execute
Object Explorer
Connect
DESKTOP-NGS8Q66 (SQL Server 15.
Databases
System Databases
Database Snapshots
TaskManager
Database Diagrams
Tables
System Tables
FileTables
External Tables
Graph Tables
dbo.customerDB
dbo.techs
dbo.users
Columns
Keys
Constraints
Triggers
Indexes
Statistics
Views
External Resources
Synonyms
Programmability
Service Broker
Storage
Security
Security
Server Objects
SQLQuery1.sql - DE...NGS8Q66\user (56))
/****** Script for SelectTopNRows command from SSMS ******/
SELECT TOP (1000) [userID]
,[username]
,[password]
FROM [TaskManager].[dbo].[users]
100 %
Results
Messages
userID username password
1 1 Aish2001 aish2001
2 2 user visualstudio
Query executed successfully.
DESKTOP-NGS8Q66 (15.0 RTM)
DESKTOP-NGS8Q66\user (56)
TaskManager
00:00:00
2 rows

1.4. Application Setup

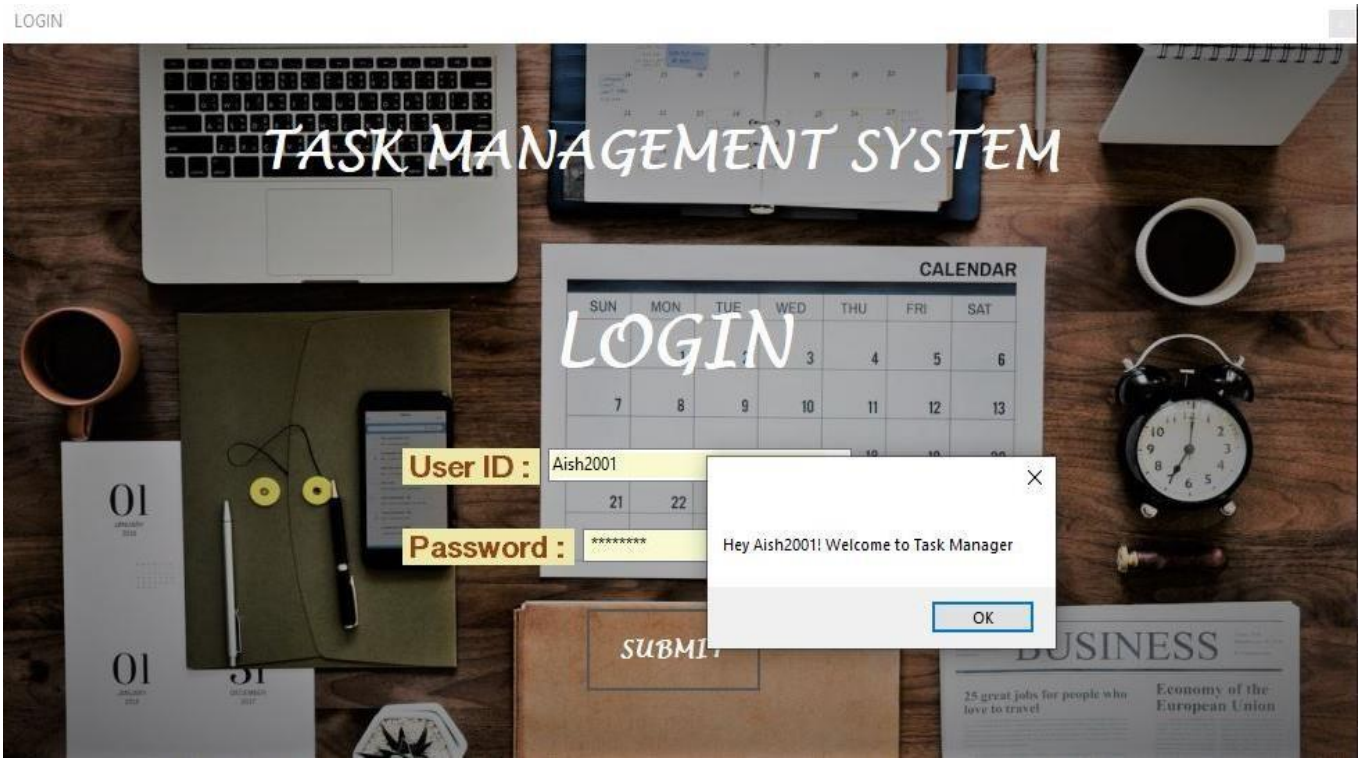
This task manager system was created in Windows Forms App in Visual studio. It has two screens:

- a login screen with database level authentication
- once login is successful , user will be taken to the next screen which is a dashboard which displays the scheduled tasks and completed tasks

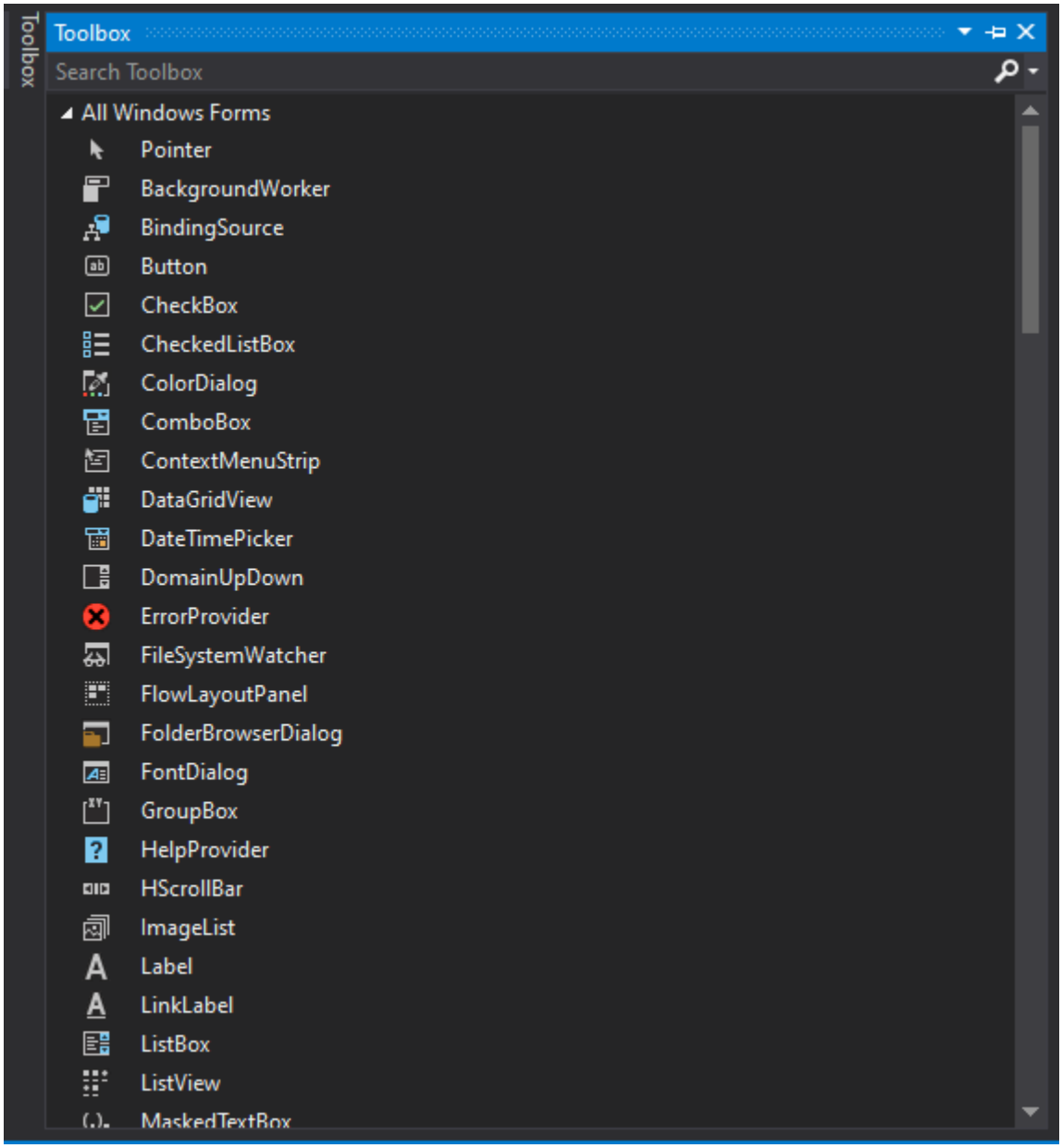
1.4.1 Login

This is the login screen where users will have to enter their Username and Password. Once the password is correct and verified, users will be directed to the dashboard with the contents.


LOGIN
TASK MANAGEMENT SYSTEM
LOGIN
User ID :
Aish2001
Password :
SUBMIT
CALENDAR
BUSINESS


LOGIN
TASK MANAGEMENT SYSTEM
LOGIN
User ID :
Aish2001
Password :
Hey Aish2001! Welcome to Task Manager
OK
CALENDAR
BUSINESS

It’s front end was designed with help of the toolbox available in Windows forms App.



The desired tools were selected and their properties were altered to create the design of the Login page.

The backend was coded in C# language.

Code :

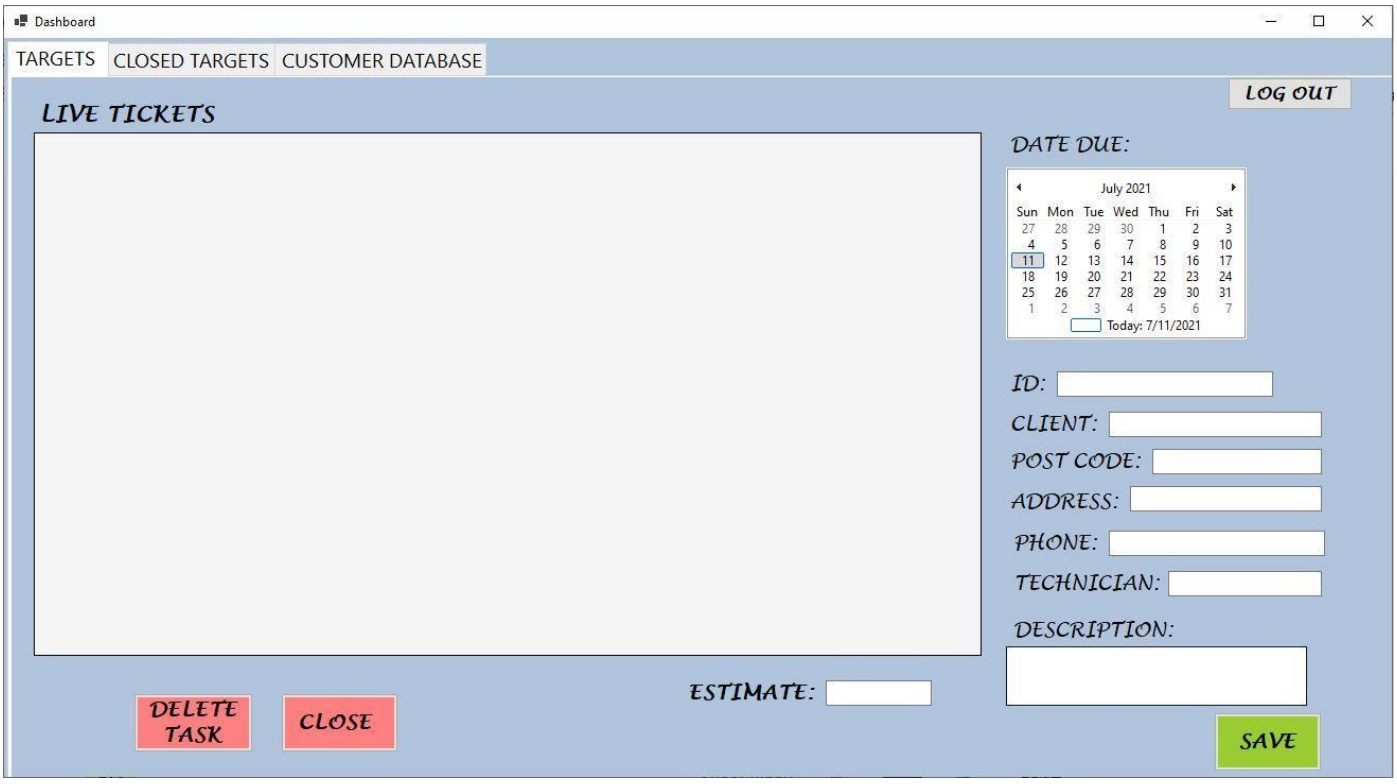
```
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows.Forms;
using System.Data.SqlClient;

namespace TASK_MANAGER
{
    public partial class Login : Form
    {
        public Login()
        {
            InitializeComponent();
        }

        private void Login_Load(object sender, EventArgs e)
        {


        }

        private void btn_Submit(object sender, EventArgs e)
        {
            SqlConnection sqlcon = new SqlConnection(@"Data Source=DESKTOP-
NGS8Q66;Initial Catalog=TaskManager;Integrated Security=True");
            String query = "select* from users where username = '" +
comboBox1.Text.Trim() + "' and password = '" + textBox1.Text.Trim() + "'";
            SqlDataAdapter sda = new SqlDataAdapter(query, sqlcon);
            DataTable dtbl = new DataTable();
            sda.Fill(dtbl);
            if(dtbl.Rows.Count == 1)
            {
                MessageBox.Show("Hey " + comboBox1.Text + "! Welcome to Task
Manager");
                Main objMain = new Main();
                this.Hide();
                objMain.Show();
            }
            else
```

```
            {
                MessageBox.Show("Incorrect Username or Password Entered!");
            }
        }

        private void Login_Load_1(object sender, EventArgs e) { }

    }
}
```

1.4.2. Dashboard

Dashboard shows the scheduled tasks (as live tickets) and the completed tasks (as closed tickets).

The front end was designed in the same way using the labels and the backend code is written in C#.



Dashboard also gives access to the customer database showing a user all their clients.

Code:

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


namespace TASK_MANAGER
{

    public partial class Main : Form
    {
        SqlConnection sh = new SqlConnection(@"C:\Users\user\source\repos\TASK
MANAGER\SQLHelper.cs");
        string path1 = (@"C:\Users\user\source\repos\TASK
MANAGER\App1.config");
        BindingSource bs = new BindingSource();

        SqlConnection con = new SqlConnection(@"Data Source=DESKTOP-
NGS8Q66;Initial Catalog=TaskManager;Integrated Security=True");
        public Main()
        {
            InitializeComponent();
        }

        private void btnSaveClient_Click(object sender, EventArgs e)
        {
            con.Open();
            SqlCommand cmd = con.CreateCommand();
            cmd.CommandType = CommandType.Text;
            cmd.CommandText = "insert into customerDB(ID, client, post code,
address, phone, email) Values(@ID:, @CLIENT:, @POST CODE:, @ADDRESS:, @PHONE:,
@EMAIL:)";
            cmd.Parameters.AddWithValue("@ID:", textBox14.Text);
            cmd.Parameters.AddWithValue("@CLIENT:", textBox15.Text);
            cmd.Parameters.AddWithValue("@POST CODE:", textBox13.Text);
            cmd.Parameters.AddWithValue("@ADDRESS:", textBox12.Text);
            cmd.Parameters.AddWithValue("@PHONE:", textBox10.Text);
            cmd.Parameters.AddWithValue("@EMAIL:", textBox11.Text);

            cmd.ExecuteNonQuery();
```

```
            con.Close();
            disp_data();

            MessageBox.Show("Record Updated");

            textBox14.Text = "";
            textBox15.Text = "";
            textBox13.Text = "";
            textBox12.Text = "";
            textBox10.Text = "";
            textBox11.Text = "";


        }

        public void disp_data()
        {
            con.Open();
            SqlCommand cmd = con.CreateCommand();
            cmd.CommandType = CommandType.Text;
            cmd.CommandText = "select * from customerDB";
            System.Data.DataSet ds = new System.Data.DataSet();
            SqlDataAdapter da = new SqlDataAdapter(cmd);
            da.Fill(ds);
            dataGridView3.DataSource = ds;

            con.Close();
        }

        private void Main_Load(object sender, EventArgs e)
        {

            disp_data();
        }

        private void button2_Click(object sender, EventArgs e)
        {
            dataGridView1.Rows.Add(textBox8.Text, textBox7.Text, textBox1.Text,
textBox3.Text, textBox5.Text, textBox6.Text, textBox4.Text, textBox2.Text,
monthCalendar1.SelectionRange.Start.ToShortDateString());
            textBox8.Text = "";
            textBox7.Text = "";
            textBox1.Text = "";
            textBox3.Text = "";
            textBox5.Text = "";
            textBox6.Text = "";
            textBox4.Text = "";
            textBox2.Text = "";
```

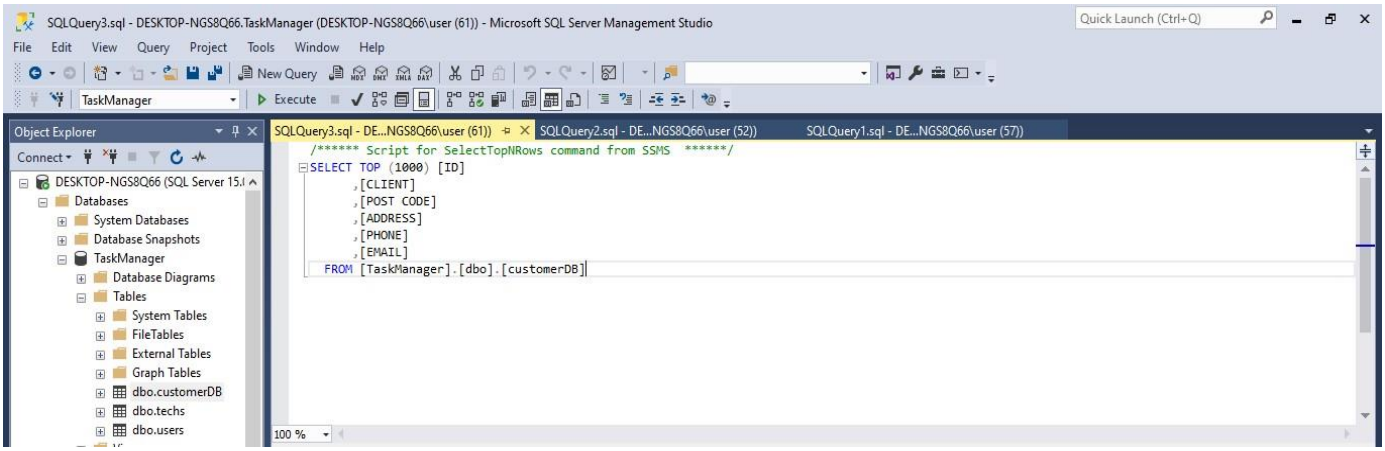
```
        }

        private void button3_Click(object sender, EventArgs e)
        {
            foreach (DataGridViewRow selRow in
dataGridView1.SelectedRows.OfType<DataGridViewRow>().ToArray())
            {
                dataGridView1.Rows.Remove(selRow);
                dataGridView2.Rows.Add(selRow);

                textBox9.Text = (from DataGridViewRow rows in
dataGridView2.Rows
                                 where rows.Cells[7].FormattedValue.ToString()
!= string.Empty
                                 select
Convert.ToDouble(rows.Cells[7].FormattedValue)).Sum().ToString();


            }


        }

        private void button1_Click(object sender, EventArgs e)
        {
            foreach (DataGridViewRow selRow in
dataGridView1.SelectedRows.OfType<DataGridViewRow>().ToArray())
            {
                dataGridView1.Rows.Remove(selRow);
            }

        }

        private void button5_Click(object sender, EventArgs e)
        {
            Microsoft.Office.Interop.Excel._Application app = new
Microsoft.Office.Interop.Excel.Application();
            Microsoft.Office.Interop.Excel._Workbook workbook =
app.Workbooks.Add(Type.Missing);
            Microsoft.Office.Interop.Excel._Worksheet worksheet = null;
            app.Visible = true;
            worksheet = workbook.Sheets["Sheet1"];
            worksheet = workbook.ActiveSheet;
            worksheet.Name = "Exported from Task Manager";

            for(int i = 1; i<dataGridView2.Columns.Count + 1; i++)
            {
```

```
                worksheet.Cells[1, i] = dataGridView2.Columns[i -
1].HeaderText;
            }
            for(int i=0; i < dataGridView2.Rows.Count - 1; i++)
            {
                for(int j=0; j < dataGridView2.Columns.Count; j++)
                {
                    worksheet.Cells[i + 2, j + 1] =
dataGridView2.Rows[i].Cells[j].Value.ToString();
                }
            }

            worksheet.SaveAs("c:\\CLOSEDTARGETS.xls",
                             Type.Missing,
                             Type.Missing,
                             Type.Missing,
                             Type.Missing,
                             Type.Missing,

Microsoft.Office.Interop.Excel.XlSaveAsAccessMode.xlExclusive,
                             Type.Missing,
                             Type.Missing,
                             Type.Missing
                             );
        }
        private void button4_Click(object sender, EventArgs e)
        {
            foreach (DataGridViewRow selRow in
dataGridView2.SelectedRows.OfType<DataGridViewRow>().ToArray())
            {
                dataGridView2.Rows.Remove(selRow);


                textBox9.Text = (from DataGridViewRow rows in
dataGridView2.Rows
                                 where rows.Cells[7].FormattedValue.ToString()
!= string.Empty
                                 select
Convert.ToDouble(rows.Cells[7].FormattedValue)).Sum().ToString();


            }
        }

        private void button8_Click(object sender, EventArgs e)
        {
            this.Hide();
            Login loginPg = new Login();
```

```
            loginPg.Show();
        }

        private void button7_Click(object sender, EventArgs e)
        {
            this.Hide();
            Login loginPg = new Login();
            loginPg.Show();
        }

        private void button6_Click(object sender, EventArgs e)
        {
            this.Hide();
            Login loginPg = new Login();
            loginPg.Show();
        }


    }
}
```

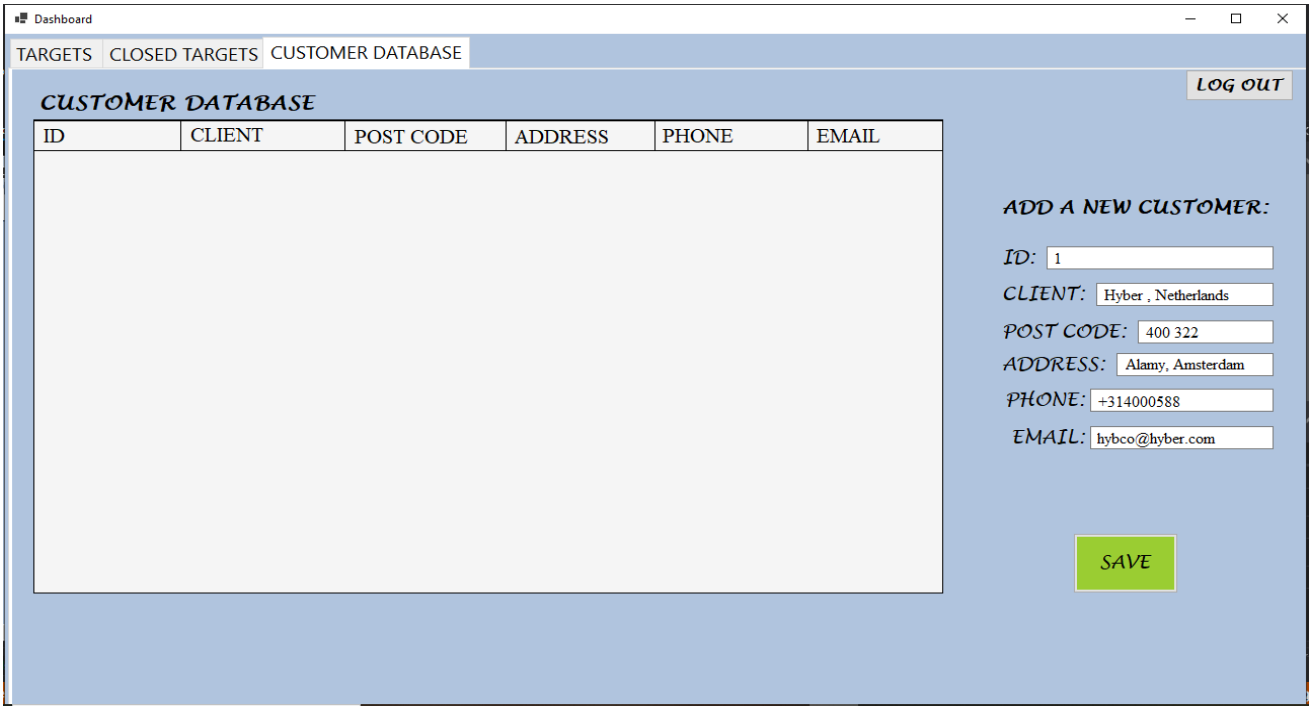
1.4.3. SQL Database

All tasks entered by the user is stored in a database in SQL Server. The details are arranged in the form of a table under various columns.

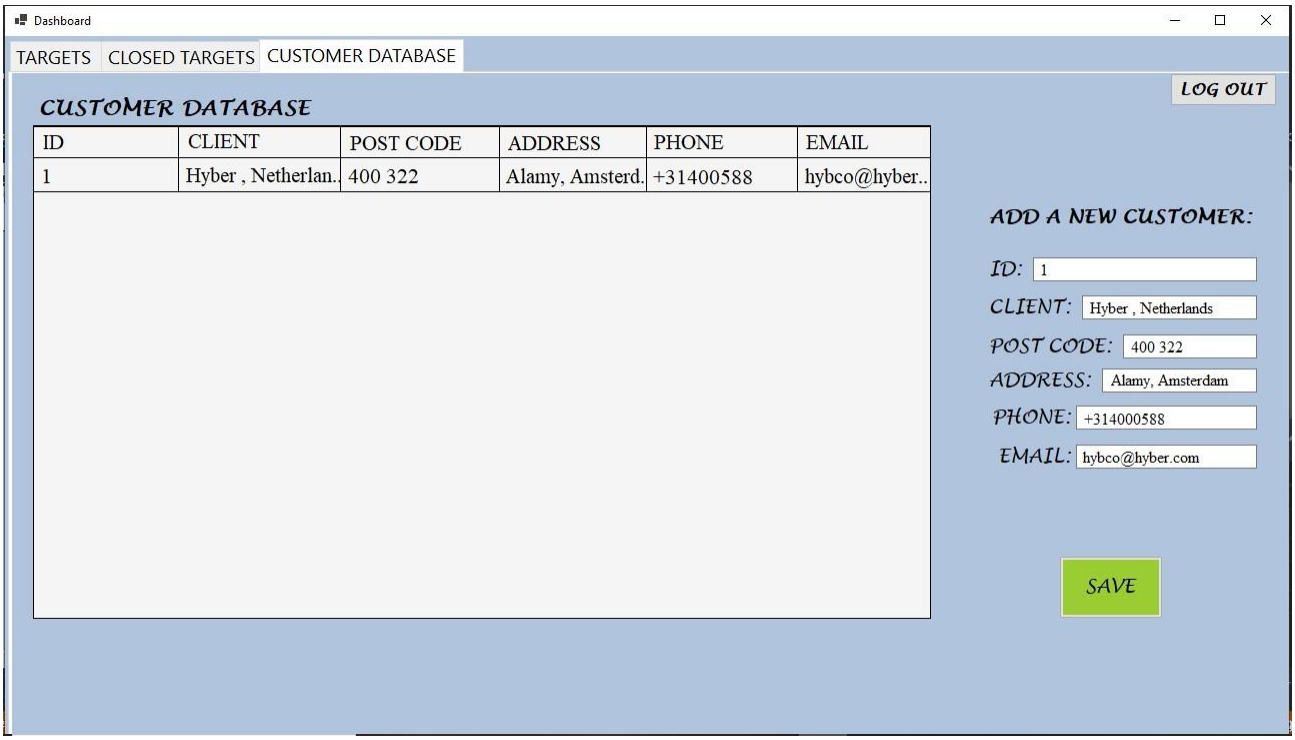


1.5. Working

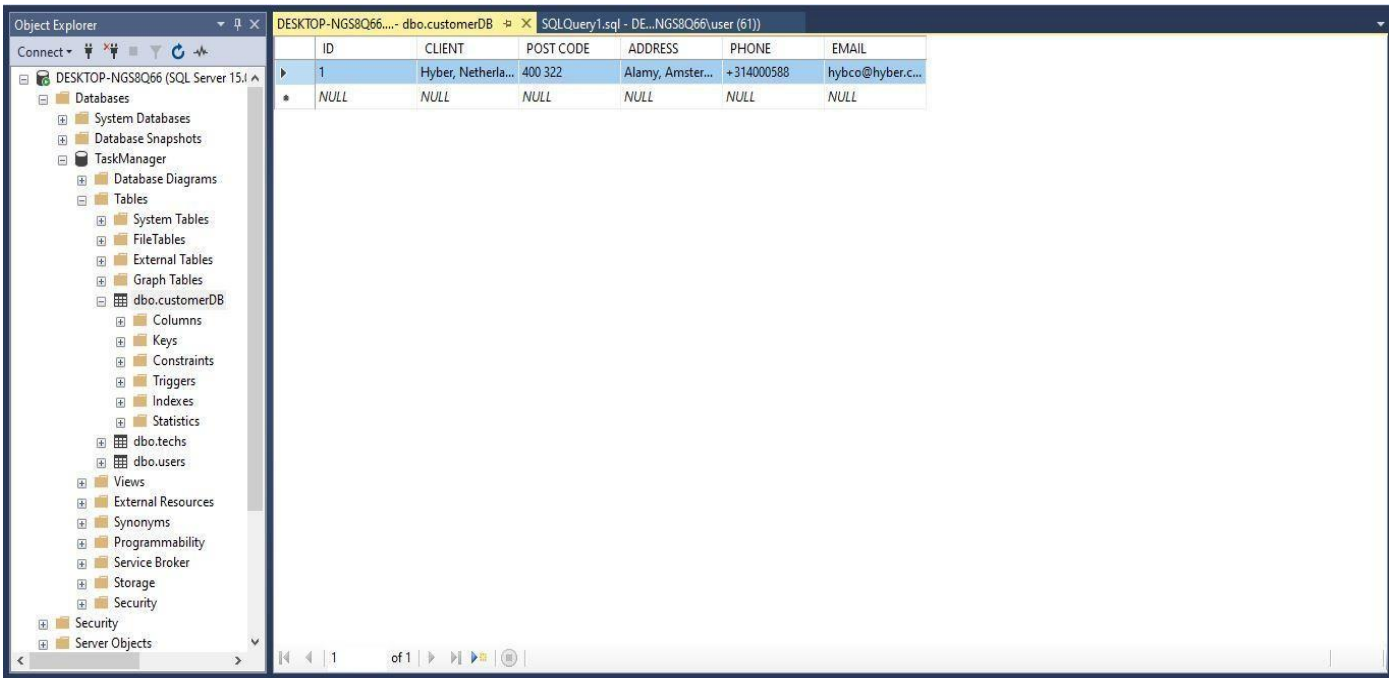
The user enters Client details in the customer database.



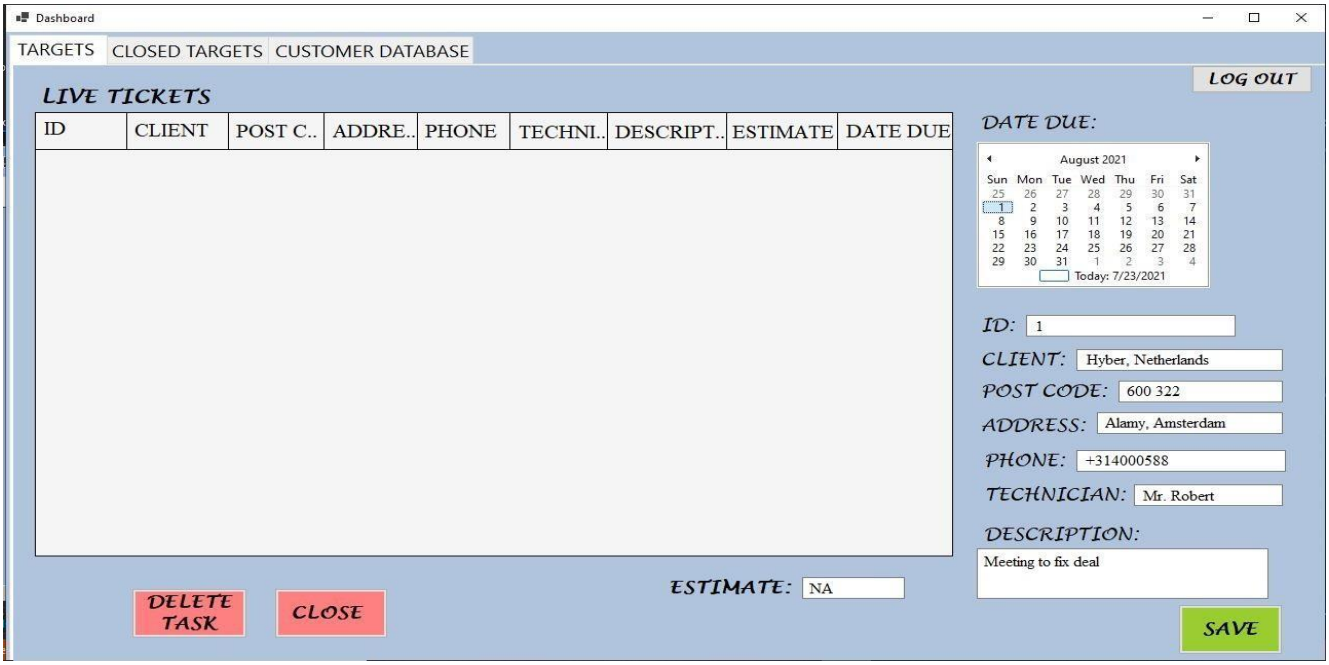
On clicking ‘SAVE’, the details are shown in the table.



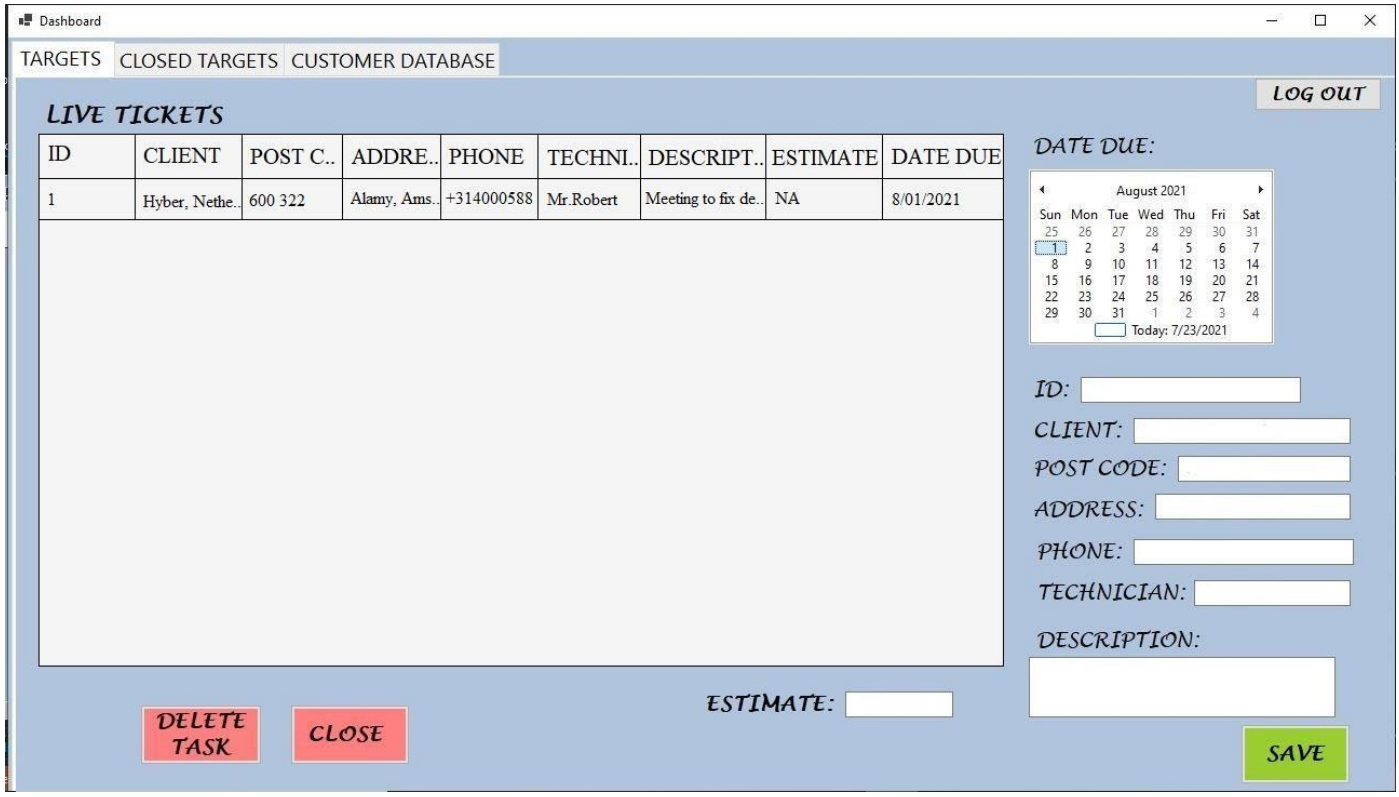
Simultaneously, this also gets updated within the database in SQL Server.



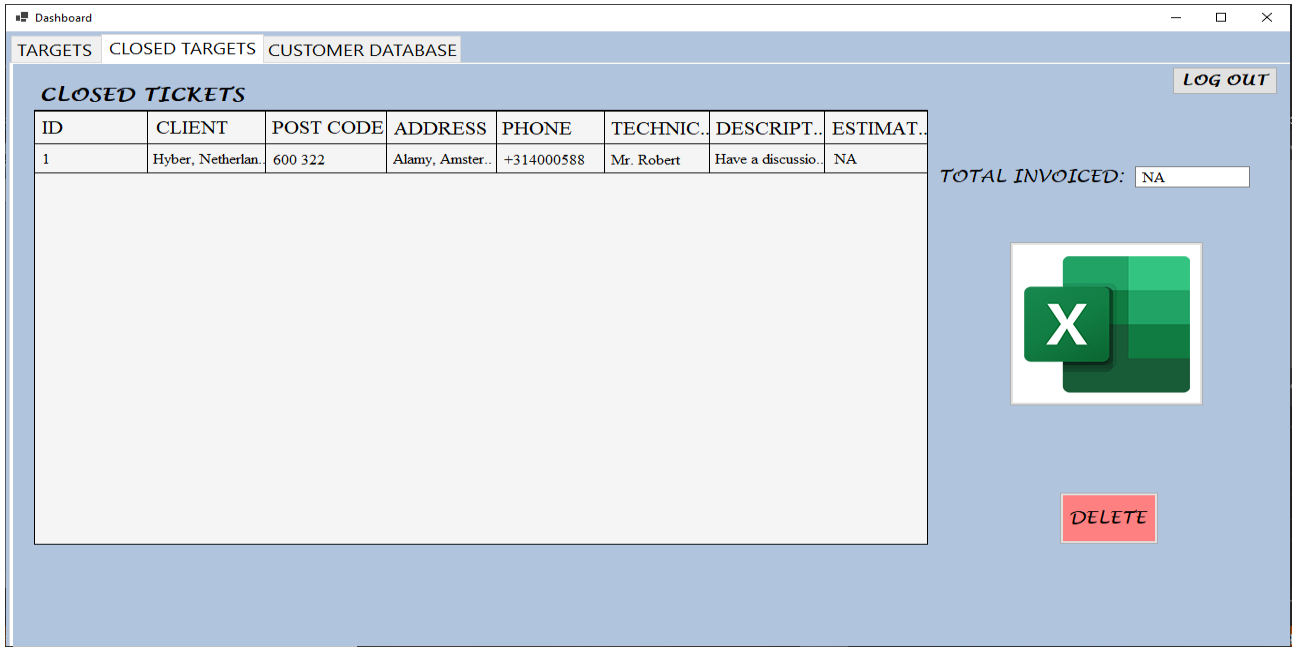
Since this is not a deleted/closed task, it shows up under the 'LIVE TARGETS' bar. The Due Date can be set by the user and gets saved once the save button is clicked. In this case we select August 1st.



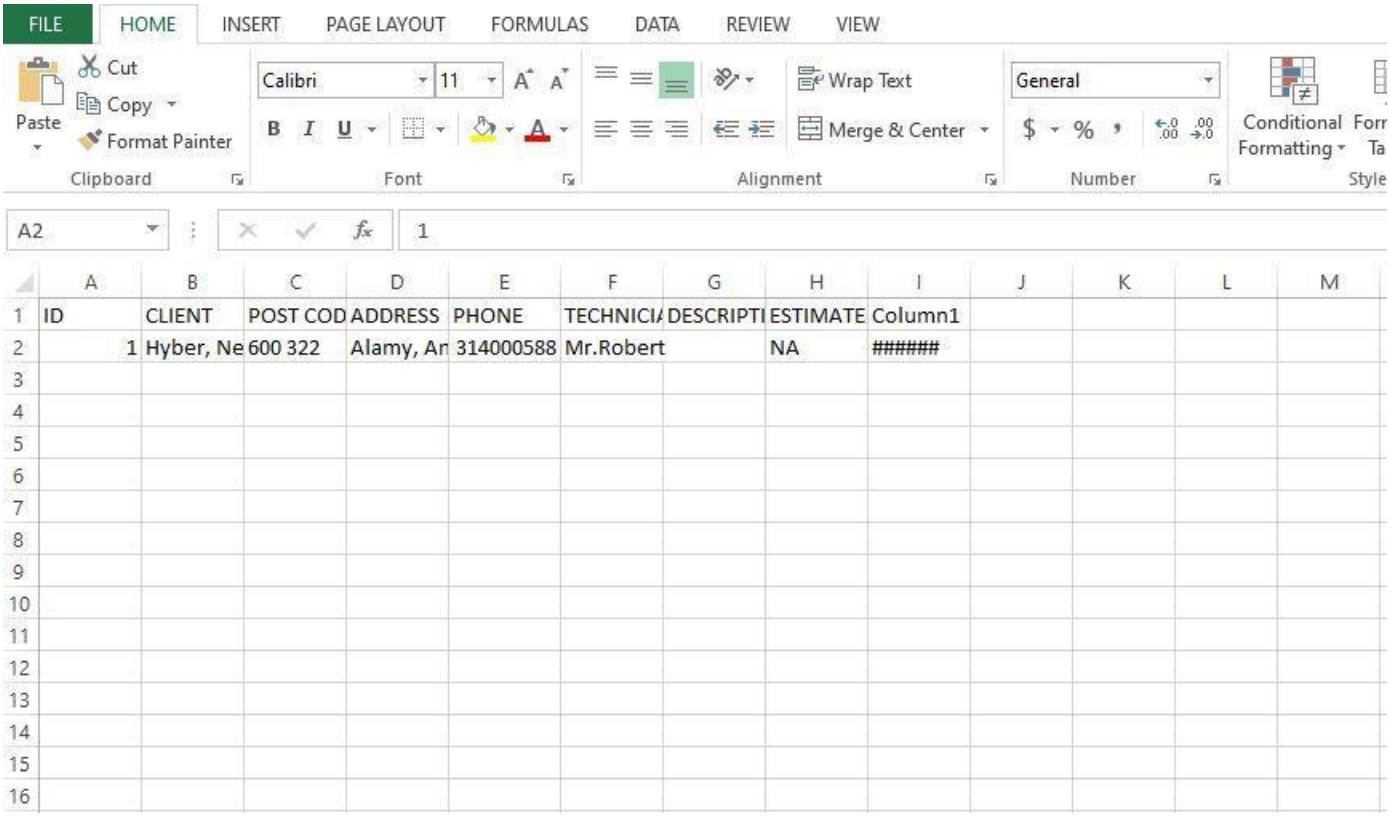
Pressing ‘SAVE’ also clears the textboxes which enables us to enter new tasks.



Once we are done with a task, we can either delete/close it. ‘DELETE TASK’ permanently deletes a task whereas ‘CLOSE’ closes a task and it shows up in the ‘CLOSED TARGETS’ bar.



An excel sheet of the closed targets can be made available by clicking on the Excel icon to the right. This can be saved for the user's future reference.



	A	B	C	D	E	F	G	H	I	J	K	L	M
1	ID	CLIENT	POST COD	ADDRESS	PHONE	TECHNICI	DESCRIPTI	ESTIMATE	Column1				
2	1	Hyber, Ne	600 322	Alamy, Ar	314000588	Mr.Robert		NA	######				
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													
16													