

```
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 Npgsql;
```

```
namespace hotel_automation_system
```

```
{
    public partial class Form1 : Form
    {
        public Form1()
        {
            InitializeComponent();
        }
    }
```

```
    NpgsqlConnection v_connection = new NpgsqlConnection("server = localhost; port = 5432;
Database = hotelAutomationSystem; user ID = postgres; password=muyuka2000");
```

```
    private void Form1_Load(object sender, EventArgs e)
    {
    }

    private void customerSelectButton_Click(object sender, EventArgs e)
    {
        if(customerSelectIdTextBox.Text == "")
    }
```

```

        MessageBox.Show("Please enter a customer ID...");

    }

    else

    {

        v_connection.Open();

        string query = "SELECT * FROM \"Musteri\" WHERE \"musteri_ID\" =" +
customerSelectIdTextBox.Text;

        NpgsqlDataAdapter v_data_adapter = new NpgsqlDataAdapter(query, v_connection);

        DataSet v_data_set = new DataSet();

        v_data_adapter.Fill(v_data_set);

        selectResultDataGridView.DataSource = v_data_set.Tables[0];

        v_connection.Close();

    }

}

private void customerAddButton_Click(object sender, EventArgs e)

{

    if(customerAddIdTextBox.Text == "" || customerAddNameTextBox.Text == "" ||

customerAddSurnameTextBox.Text == "" || customerAddPhoneTextBox.Text == "")

    {

        MessageBox.Show("Please fill in all fields");

    }

    else

    {

        v_connection.Open();

        NpgsqlCommand v_command = new NpgsqlCommand("call

musteriekle(:musteri_ID,:musteri_ad,:musteri_soyad,:musteri_telefon)", v_connection);

        v_command.CommandType = CommandType.Text;

        v_command.Parameters.AddWithValue(":musteri_ID",

Int32.Parse(customerAddIdTextBox.Text));

        v_command.Parameters.AddWithValue(":musteri_ad", customerAddNameTextBox.Text);

    }

}

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```
        v_command.Parameters.AddWithValue(":musteri_soyad",
customerAddSurnameTextBox.Text);

        v_command.Parameters.AddWithValue(":musteri_telefon",
Int32.Parse(customerAddPhoneTextBox.Text));

        v_command.ExecuteNonQuery();

        v_connection.Close();

        MessageBox.Show("Adding a new customer process is successfully.");

    }

}
```

```
private void customerDeleteButton_Click(object sender, EventArgs e)
{
    if(customerDeleteIdTextBox.Text == "")
    {
        MessageBox.Show("Please enter a customer ID to delete.");
    }
    else
    {
        v_connection.Open();

        NpgsqlCommand v_command = new NpgsqlCommand("call musterisil(:musteri_ID)",
v_connection);

        v_command.CommandType = CommandType.Text;

        v_command.Parameters.AddWithValue(":musteri_ID",
Int32.Parse(customerDeleteIdTextBox.Text));

        v_command.ExecuteNonQuery();

        v_connection.Close();

        MessageBox.Show("Deleting a customer process is successfully.");
    }

}
```

```
private void customerUpdateButton_Click(object sender, EventArgs e)
```

```

{
    if(customerUpdateIdTextBox.Text == "" || customerUpdateNameTextBox.Text == "" ||
customerUpdateSurnameTextBox.Text == "" || customerUpdatePhoneTextBox.Text == "" ||
customerOldIdTextBox.Text == "") 

    {
        MessageBox.Show("Please fill in all fields");
    }
    else
    {
        v_connection.Open();

        NpgsqlCommand v_command = new NpgsqlCommand("call
musteriguncelle(:musteri_ID_old, :musteri_ID_new ,:musteri_ad, :musteri_soyad, :musteri_telefon)",
v_connection);

        v_command.CommandType = CommandType.Text;

        v_command.Parameters.AddWithValue(":musteri_ID_old",
Int32.Parse(customerOldIdTextBox.Text));

        v_command.Parameters.AddWithValue(":musteri_ID_new",
Int32.Parse(customerUpdateIdTextBox.Text));

        v_command.Parameters.AddWithValue(":musteri_ad",
customerUpdateNameTextBox.Text);

        v_command.Parameters.AddWithValue(":musteri_soyad",
customerUpdateSurnameTextBox.Text);

        v_command.Parameters.AddWithValue(":musteri_telefon",
Int32.Parse(customerUpdatePhoneTextBox.Text));

        v_command.ExecuteNonQuery();

        v_connection.Close();

        MessageBox.Show("Updating a customer process is successfully.");
    }
}

```

```

private void verifyButton_Click(object sender, EventArgs e)
{
    switch(customerAmountNumericUpDown.Value)
    {

```

```
case 1:  
    customerRoomId1TextBox.Enabled = true;  
    verifyButton.Enabled = false;  
    roomNoTextBox.Enabled = true;  
    break;  
  
case 2:  
    customerRoomId1TextBox.Enabled = true;  
    customerRoomId2TextBox.Enabled = true;  
    verifyButton.Enabled = false;  
    roomNoTextBox.Enabled = true;  
    break;  
  
case 3:  
    customerRoomId1TextBox.Enabled = true;  
    customerRoomId2TextBox.Enabled = true;  
    customerRoomId3TextBox.Enabled = true;  
    verifyButton.Enabled = false;  
    roomNoTextBox.Enabled = true;  
    break;  
  
case 4:  
    customerRoomId1TextBox.Enabled = true;  
    customerRoomId2TextBox.Enabled = true;  
    customerRoomId3TextBox.Enabled = true;  
    customerRoomId4TextBox.Enabled = true;  
    verifyButton.Enabled = false;  
    roomNoTextBox.Enabled = true;  
    break;  
  
case 5:  
    customerRoomId1TextBox.Enabled = true;  
    customerRoomId2TextBox.Enabled = true;  
    customerRoomId3TextBox.Enabled = true;  
    customerRoomId4TextBox.Enabled = true;
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        customerRoomId5TextBox.Enabled = true;
        verifyButton.Enabled = false;
        roomNoTextBox.Enabled = true;
        break;
    case 6:
        customerRoomId1TextBox.Enabled = true;
        customerRoomId2TextBox.Enabled = true;
        customerRoomId3TextBox.Enabled = true;
        customerRoomId4TextBox.Enabled = true;
        customerRoomId5TextBox.Enabled = true;
        customerRoomId6TextBox.Enabled = true;
        verifyButton.Enabled = false;
        roomNoTextBox.Enabled = true;
        break;
    }
}

private void resetButton_Click(object sender, EventArgs e)
{
    customerRoomId1TextBox.Text = "";
    customerRoomId2TextBox.Text = "";
    customerRoomId3TextBox.Text = "";
    customerRoomId4TextBox.Text = "";
    customerRoomId5TextBox.Text = "";
    customerRoomId6TextBox.Text = "";
    customerRoomId1TextBox.Enabled = false;
    customerRoomId2TextBox.Enabled = false;
    customerRoomId3TextBox.Enabled = false;
    customerRoomId4TextBox.Enabled = false;
    customerRoomId5TextBox.Enabled = false;
    customerRoomId6TextBox.Enabled = false;
}
```

```

breakfastCheckBox.Checked = false;
minibarCheckBox.Checked = false;
swimmingpoolCheckBox.Checked = false;
verifyButton.Enabled = true;
roomNoTextBox.Enabled = false;
customerAmountNumericUpDown.Value = 0;
roomNoTextBox.Text = "";
}

private void roomRentButton_Click(object sender, EventArgs e)
{
    if(customerAmountNumericUpDown.Value == 0 || roomNoTextBox.Text == "" )
    {
        MessageBox.Show("Please fill in the required fields.");
    }
}

else
{
    v_connection.Open();

    NpgsqlCommand v_command = new NpgsqlCommand("call
odakiralra(:oda_No,:musteri_ID_1,:musteri_ID_2,:musteri_ID_3,:musteri_ID_4,:musteri_ID_5,:musteri
_ID_6)", v_connection);

    v_command.CommandType = CommandType.Text;

    if (customerAmountNumericUpDown.Value == 1)
    {
        v_command.Parameters.AddWithValue(":oda_No", Int32.Parse(roomNoTextBox.Text));
        v_command.Parameters.AddWithValue(":musteri_ID_1",
Int32.Parse(customerRoomId1TextBox.Text));
        v_command.Parameters.AddWithValue(":musteri_ID_2", 0);
        v_command.Parameters.AddWithValue(":musteri_ID_3", 0);
        v_command.Parameters.AddWithValue(":musteri_ID_4", 0);
    }
}

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        v_command.Parameters.AddWithValue(":musteri_ID_5", 0);
        v_command.Parameters.AddWithValue(":musteri_ID_6", 0);
        v_command.ExecuteNonQuery();
    }

    else if(customerAmountNumericUpDown.Value == 2)
    {

        v_command.Parameters.AddWithValue(":oda_No", Int32.Parse(roomNoTextBox.Text));
        v_command.Parameters.AddWithValue(":musteri_ID_1",
Int32.Parse(customerRoomId1TextBox.Text));

        v_command.Parameters.AddWithValue(":musteri_ID_2",
Int32.Parse(customerRoomId2TextBox.Text));

        v_command.Parameters.AddWithValue(":musteri_ID_3", 0);
        v_command.Parameters.AddWithValue(":musteri_ID_4", 0);
        v_command.Parameters.AddWithValue(":musteri_ID_5", 0);
        v_command.Parameters.AddWithValue(":musteri_ID_6", 0);
        v_command.ExecuteNonQuery();
    }

    else if (customerAmountNumericUpDown.Value == 3)
    {

        v_command.Parameters.AddWithValue(":oda_No", Int32.Parse(roomNoTextBox.Text));
        v_command.Parameters.AddWithValue(":musteri_ID_1",
Int32.Parse(customerRoomId1TextBox.Text));

        v_command.Parameters.AddWithValue(":musteri_ID_2",
Int32.Parse(customerRoomId2TextBox.Text));

        v_command.Parameters.AddWithValue(":musteri_ID_3",
Int32.Parse(customerRoomId3TextBox.Text));

        v_command.Parameters.AddWithValue(":musteri_ID_4", 0);
        v_command.Parameters.AddWithValue(":musteri_ID_5", 0);
        v_command.Parameters.AddWithValue(":musteri_ID_6", 0);
        v_command.ExecuteNonQuery();
    }

    else if (customerAmountNumericUpDown.Value == 4)
    {

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```

        v_command.Parameters.AddWithValue(":oda_No", Int32.Parse(roomNoTextBox.Text));

        v_command.Parameters.AddWithValue(":musteri_ID_1",
Int32.Parse(customerRoomId1TextBox.Text));

        v_command.Parameters.AddWithValue(":musteri_ID_2",
Int32.Parse(customerRoomId2TextBox.Text));

        v_command.Parameters.AddWithValue(":musteri_ID_3",
Int32.Parse(customerRoomId3TextBox.Text));

        v_command.Parameters.AddWithValue(":musteri_ID_4",
Int32.Parse(customerRoomId4TextBox.Text));

        v_command.Parameters.AddWithValue(":musteri_ID_5", 0);

        v_command.Parameters.AddWithValue(":musteri_ID_6", 0);

        v_command.ExecuteNonQuery();

    }

else if (customerAmountNumericUpDown.Value == 5)

{

    v_command.Parameters.AddWithValue(":oda_No", Int32.Parse(roomNoTextBox.Text));

    v_command.Parameters.AddWithValue(":musteri_ID_1",
Int32.Parse(customerRoomId1TextBox.Text));

    v_command.Parameters.AddWithValue(":musteri_ID_2",
Int32.Parse(customerRoomId2TextBox.Text));

    v_command.Parameters.AddWithValue(":musteri_ID_3",
Int32.Parse(customerRoomId3TextBox.Text));

    v_command.Parameters.AddWithValue(":musteri_ID_4",
Int32.Parse(customerRoomId4TextBox.Text));

    v_command.Parameters.AddWithValue(":musteri_ID_5",
Int32.Parse(customerRoomId5TextBox.Text));

    v_command.Parameters.AddWithValue(":musteri_ID_6", 0);

    v_command.ExecuteNonQuery();

}

else if (customerAmountNumericUpDown.Value == 6)

{

    v_command.Parameters.AddWithValue(":oda_No", Int32.Parse(roomNoTextBox.Text));

    v_command.Parameters.AddWithValue(":musteri_ID_1",
Int32.Parse(customerRoomId1TextBox.Text));

```

```
        v_command.Parameters.AddWithValue(":musteri_ID_2",
Int32.Parse(customerRoomId2TextBox.Text));

        v_command.Parameters.AddWithValue(":musteri_ID_3",
Int32.Parse(customerRoomId3TextBox.Text));

        v_command.Parameters.AddWithValue(":musteri_ID_4",
Int32.Parse(customerRoomId4TextBox.Text));

        v_command.Parameters.AddWithValue(":musteri_ID_5",
Int32.Parse(customerRoomId5TextBox.Text));

        v_command.Parameters.AddWithValue(":musteri_ID_6",
Int32.Parse(customerRoomId6TextBox.Text));

        v_command.ExecuteNonQuery();

    }

v_connection.Close();

MessageBox.Show("Renting a room process is successfully.");

customerRoomId1TextBox.Text = "";
customerRoomId2TextBox.Text = "";
customerRoomId3TextBox.Text = "";
customerRoomId4TextBox.Text = "";
customerRoomId5TextBox.Text = "";
customerRoomId6TextBox.Text = "";
customerRoomId1TextBox.Enabled = false;
customerRoomId2TextBox.Enabled = false;
customerRoomId3TextBox.Enabled = false;
customerRoomId4TextBox.Enabled = false;
customerRoomId5TextBox.Enabled = false;
customerRoomId6TextBox.Enabled = false;
breakfastCheckBox.Checked = false;
minibarCheckBox.Checked = false;
swimmingpoolCheckBox.Checked = false;
verifyButton.Enabled = true;
roomNoTextBox.Enabled = false;
```

```

        }

    }

private void roomExitButton_Click(object sender, EventArgs e)
{
    if(roomExitTextBox.Text == "")
    {
        MessageBox.Show("Please fill the room ID field.");
    }
    else
    {
        v_connection.Open();
        NpgsqlCommand v_command = new NpgsqlCommand("call odasil(:oda_No)", v_connection);
        v_command.CommandType = CommandType.Text;
        v_command.Parameters.AddWithValue(":oda_No", Int32.Parse(roomExitTextBox.Text));
        v_command.ExecuteNonQuery();
        v_connection.Close();
        MessageBox.Show("Exiting a room process is successfully.");
    }

    roomExitTextBox.Text = "";
}

private void selectAllCustomersButton_Click(object sender, EventArgs e)
{
    v_connection.Open();
    string query = "SELECT * FROM public.\"Musteri\"";
    NpgsqlDataAdapter v_data_adapter = new NpgsqlDataAdapter(query, v_connection);
}

```

```
DataSet v_data_set = new DataSet();
v_data_adapter.Fill(v_data_set);
selectResultDataGridView.DataSource = v_data_set.Tables[0];
v_connection.Close();

}

}

}
```