DBMQP Mini Project

For

Gymnasium Management System

Done By,

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Project Title: Gymnasium Management System

INTRODUCTION:

The present scenario in managing a gym is time-consuming and is also very costly as there involves a lot of limitations in this system. Every management task has to be done manually, which involves a lot of hand-written paper work. Due to this, the time for recording details of every member and employee is large and is not feasible. The aim of the project is to design and develop an automated system i.e. machine work which eliminates the need of manual hand-written paper work and is much more reliable.

Objective: The objective of the **"Gymnasium Management System"** is to establish a management system to digitalize and create an automated system for managing a gym. The present scenario in the gyms is that the records are kept by writing on papers in files.

The following are specific objectives for this project:
- To increase the efficiency of maintaining a gym and keep track of all the activities in the gym.
- To increase the layer of security of the management system so that only authorized administrators and members can access by their credentials.
- To reduce human errors and eliminate a lot of manual work which outcomes in taking more time than it should.
- To reduce the carbon footprint as the amount of paper used in the gym reduces.

Scope: The system will perform tasks like adding new member to the gym, removing the member or keeping the payments records and other stuff required in managing the gym properly. The information about various things contained in the system are like members, trainers, equipment can get by just a few clicks unlike the paper documents required the serious reading for such information. It helps in creating the various batch according to their preference or if they want a particular trainer. It made easy to generate the reports of various operations performed in the gym are like paying the fee it can be stored and later evaluated and get the list of members who did not pay the fee. The system does not only limit itself to the administration and but also helps the members of the gym. The members can have options like attendance and fee payment change batch request etc. This will improve the transparency between the members which is always a good quality in the system. It will also give the layer of security to the administration and the users that only authorized users can access by their credentials. The main goal of this project is to save paperwork done by the gymnasium thereby making the data handling easier and more secure.

PROJECT CATEGORY:

RDBMS

PROJECT DESCRIPTION:

The software to be produced is on **Gymnasium Management System.** Here there are two entities. They are the gym administrators (which also include the managers) and the members (which also include the trainers). The administrators manage all the various parts of the gym. The admin can either login with their existing credentials or create a new account. After successful login they can manage various parts of the gym like the members, trainers, fees details, memberships, equipments and gym details. The admin can check for existing members or trainers and can also register for new members or trainers. They can view the details of payment of fees of various members and can add memberships to the gym. They can also keep track of the equipments provided in the gym and also update the rental fees, quantity and availability of equipments in the gym. The administrator can also update the gym details which includes the contact numbers, the opening and closing time, the total members and trainers registered in the gym and also the different types of memberships available.

On the other hand, the members can either login with their existing credentials or create a new account. After successful login they can view their various details like membership type, payment of fees, personal trainers, equipments rented and the gym details.

<u>Modules of the software:</u>

Signup and login: - The admin is the owner of the gym and will manage the trainers as well as the members of the gym. To secure the system from anonymous persons the login system is designed. So, the admin and the members will have their own username and the password. This entity will also record the login time and logout time of the user from the system. Maintaining the record of the time will provide a secure surveillance over the admin events also .The administrator also has relationships with every entity as it needs to track every performance of the system.

Staff: - It is used for managing the registered staff in the gym. This includes adding, removing, updating and fetching all the details of the staff.

Members: - It is used for managing the registered members in the gym. This includes adding, removing, updating and fetching all the details of the members.

Trainers: - It is used for managing the registered trainers in the gym. This includes adding, removing, updating and fetching all the details of the trainers.

Memberships: - It is used for managing membership plans in the gym. This includes adding, removing, updating and fetching all the details of the membership plans.

Equipment: - It is used to keep track of equipment in the gym. This includes adding, removing, updating and fetching all the details of the equipments available in the gym.

HARDWARE REQUIREMENTS:

- **Processor:** Intel dual core or above
- **Processor Speed:** 1.0GHZ or above
- **RAM:** 1 GB RAM or above
- **Hard Disk:** 20 GB hard disk or above

SOFTWARE REQUIREMENTS:

- **Language:** C#
- **Database:** My SQL

DATABASE SCHEMA:

Staff

s_id	s_firstname	s_lastname	s_gender	s_email	s_phoneno	s_address	s_username	s_password

Member

m_id	m_firstname	m_lastname	m_gender	m_email	m_phoneno	m_address	m_joindate	m_memplan

Trainer

t_id	t_firstname	t_lastname	t_gender	t_email	t_phoneno	t_address	t_dateofbirth	t_qualification

Membership

me_id	me_membershipname	me_membershiptype	me_duration	me_duration	me_cost	me_description

Equipment

e_id	e_equipmentname	e_equipmenttype	e_datepurchased	e_quantity	e_quantity	e_description

ER DIAGRAM

Admin (Staff)
- s_lastname
- s_gender
- s_email
- s_phoneno
- s_address
- s_firstname
- s_username
- s_id
- s_password

Operates

GYM MANAGEMENT SYSTEM

Members
- m_lastname
- m_firstname
- m_gender
- m_email
- m_phoneno
- m_address
- m_joindate
- m_id
- m_memplan

Manages

Trainers
- t_lastname
- t_firstname
- t_gender
- t_email
- t_phoneno
- t_address
- t_dateofbirth
- t_id
- t_qualification

Memberships
- me_id
- me_description
- me_cost
- me_membership name
- me_membership type
- me_duration
- me_dateadded

Equipments
- e_description
- e_cost
- e_id
- e_quantity
- e_equipment name
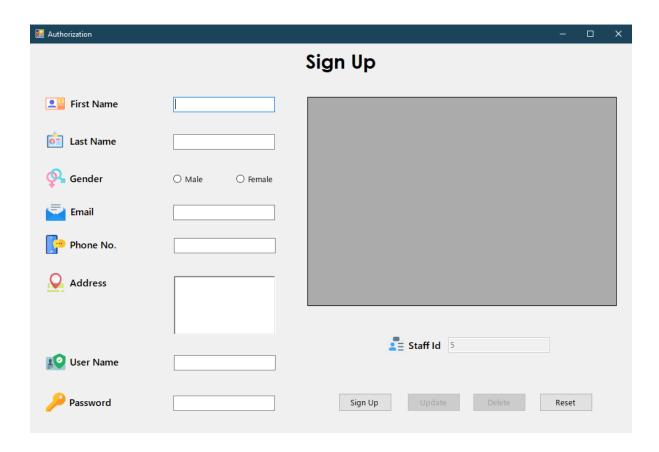- e_datepurchased
- e_equipment type

IMPLEMENTATION:

Code and Output:-
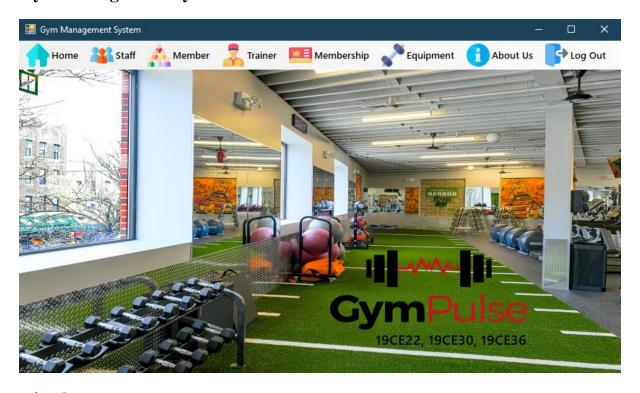
Authorization Form (Sign Up/ Login)

```csharp
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 Oracle.DataAccess.Client;

namespace GymManagementSytem
{
    public partial class Authorization : Form
    {
        String connstr = "Data Source=localhost;User ID=gms;Password=gms12345;";

        public Authorization()
        {
            InitializeComponent();
        }

        private void linkLabel1_LinkClicked(object sender,
LinkLabelLinkClickedEventArgs e)
        {
            Staff staff = new Staff();
            staff.Show();
        }

        private void button2_Click(object sender, EventArgs e)
        {
            user.Clear();
            pass.Clear();
        }

        private void button1_Click(object sender, EventArgs e)
        {
            String usr = user.Text;
            String ps = pass.Text;

            OracleParameter ousr = new OracleParameter();
            ousr.OracleDbType = OracleDbType.Varchar2;
            ousr.Value = usr;

            OracleParameter ops = new OracleParameter();
            ops.OracleDbType = OracleDbType.Varchar2;
            ops.Value = ps;

            OracleConnection conn = new OracleConnection(connstr);
            conn.Open();

            OracleCommand cmd = new OracleCommand();
            cmd.Connection = conn;

            cmd.CommandText = "select * from staff where s_username = :1 and
s_password = :2";
            cmd.CommandType = CommandType.Text;
            cmd.Parameters.Add(ousr);
            cmd.Parameters.Add(ops);

            try
            {
```

```csharp
                OracleDataAdapter oda = new OracleDataAdapter();
                oda.SelectCommand = cmd;

                DataTable dt = new DataTable();
                oda.Fill(dt);

                if (dt.Rows.Count == 1)
                {
                    this.Hide();
                    GymManagementSystem gms = new GymManagementSystem();
                    gms.Show();
                }
                else
                {
                    MessageBox.Show("Error: Invalid Details, Try again!", "Result",
MessageBoxButtons.OK, MessageBoxIcon.Error);
                }

                conn.Dispose();
            }
            catch (Exception ex)
            {
                MessageBox.Show(ex.Message);
            }
        }
    }
}
```
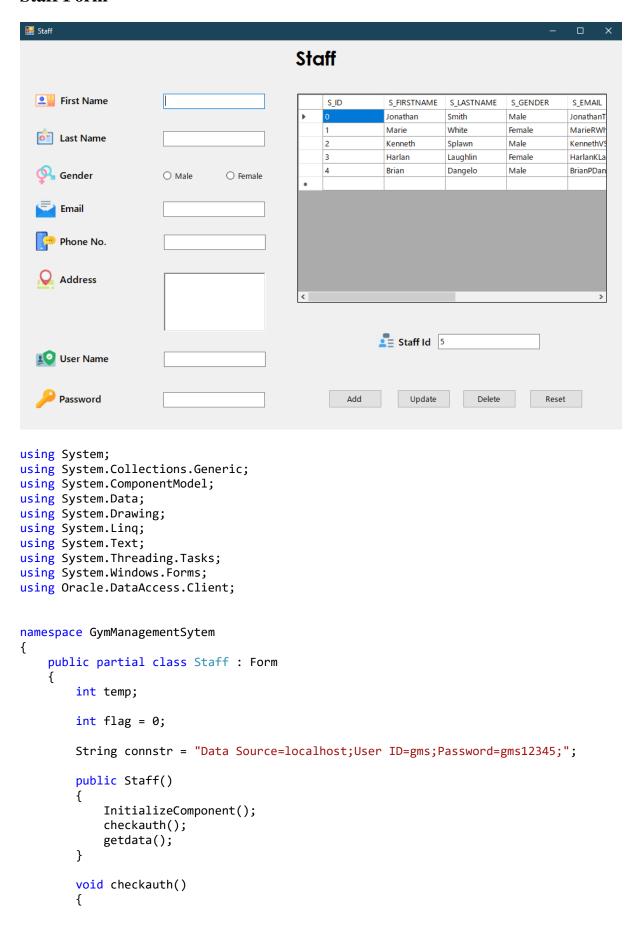
Gym Management System Form


```csharp
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;

namespace GymManagementSytem
{
    public partial class GymManagementSystem : Form
    {
        public GymManagementSystem()
        {
            InitializeComponent();
        }

        private void staffToolStripMenuItem_Click(object sender, EventArgs e)
        {
            Staff staff = new Staff();
            staff.Show();
        }

        private void memberToolStripMenuItem_Click(object sender, EventArgs e)
        {
            Member member = new Member();
            member.Show();
        }

        private void trainerToolStripMenuItem_Click_1(object sender, EventArgs e)
        {
            Trainer trainer = new Trainer();
            trainer.Show();
```

```csharp
        }

        private void membershipToolStripMenuItem_Click(object sender, EventArgs e)
        {
            Membership membership = new Membership();
            membership.Show();
        }

        private void equipmentToolStripMenuItem_Click(object sender, EventArgs e)
        {
            Equipment equipment = new Equipment();
            equipment.Show();
        }

        private void aboutusToolStripMenuItem_Click(object sender, EventArgs e)
        {
            MessageBox.Show("Gym Management System, DBMQP Mini Project - Done By
Jason, Madge, Neha.", "About Us", MessageBoxButtons.OK, MessageBoxIcon.Information);
        }

        private void logOutToolStripMenuItem_Click_1(object sender, EventArgs e)
        {
            if (MessageBox.Show("Confirm Logout?", "Caution",
MessageBoxButtons.YesNoCancel, MessageBoxIcon.Warning) == DialogResult.Yes)
            {
                this.Close();
                Authorization authorization = new Authorization();
                authorization.Show();
            }
        }
    }
}
```

Staff Form


```csharp
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 Oracle.DataAccess.Client;

namespace GymManagementSytem
{
    public partial class Staff : Form
    {
        int temp;

        int flag = 0;

        String connstr = "Data Source=localhost;User ID=gms;Password=gms12345;";

        public Staff()
        {
            InitializeComponent();
            checkauth();
            getdata();
        }

        void checkauth()
        {
```

```csharp
        FormCollection fc = Application.OpenForms;

        foreach (Form frm in fc)
        {
            if (frm.Name != "GymManagementSystem")
            {
                flag = 1;
                id.Enabled = false;
                button1.Text = "Sign Up";
                label12.Text = "Sign Up";
                this.Text = "Authorization";
                button3.Enabled = false;
                button4.Enabled = false;
            }
            else
            {
                getdatagrid();
                id.Enabled = true;
                button1.Text = "Add";
                label12.Text = "Staff";
                this.Text = "Staff";
                button3.Enabled = true;
                button4.Enabled = true;
            }
        }
    }

    void getdata()
    {
        OracleConnection conn = new OracleConnection(connstr);
        conn.Open();

        OracleCommand cmd = new OracleCommand();
        cmd.Connection = conn;

        cmd.CommandText = "select * from staff";
        cmd.CommandType = CommandType.Text;

        try
        {
            OracleDataAdapter oda = new OracleDataAdapter();
            oda.SelectCommand = cmd;

            DataTable dt = new DataTable();
            oda.Fill(dt);

            id.Text = dt.Rows.Count.ToString();
        }
        catch (Exception ex)
        {
            MessageBox.Show(ex.Message);
        }

        conn.Dispose();
    }

    void getdatagrid()
    {
        OracleConnection conn = new OracleConnection(connstr);
        conn.Open();

        OracleCommand cmd = new OracleCommand();
```

```csharp
        cmd.Connection = conn;

        cmd.CommandText = "select * from staff";
        cmd.CommandType = CommandType.Text;

        try
        {
            OracleDataAdapter oda = new OracleDataAdapter();
            oda.SelectCommand = cmd;

            DataTable dt = new DataTable();
            oda.Fill(dt);

            id.Text = dt.Rows.Count.ToString();

            BindingSource bs = new BindingSource();

            bs.DataSource = dt;
            datagrid.DataSource = bs;
            oda.Update(dt);
        }
        catch (Exception ex)
        {
            MessageBox.Show(ex.Message);
        }

        conn.Dispose();
    }

    private void button1_Click(object sender, EventArgs e)
    {
        Int32 fid = Int32.Parse(id.Text);
        String fn = firstname.Text;
        String ln = lastname.Text;
        String gen;
        String eml = email.Text;
        Int32 phn;
        String add = address.Text;
        String usr = user.Text;
        String ps = pass.Text;

        if (male.Checked)
        {
            gen = male.Text;
        }
        else if (female.Checked)
        {
            gen = female.Text;
        }
        else
        {
            gen = "";
        }

        if (phoneno.Text != "")
        {
            phn = Int32.Parse(phoneno.Text);
        }
        else
        {
            phn = 0;
        }
```

```csharp
            OracleParameter ofid = new OracleParameter();
            ofid.OracleDbType = OracleDbType.Int32;
            ofid.Value = fid;

            OracleParameter ofn = new OracleParameter();
            ofn.OracleDbType = OracleDbType.Varchar2;
            ofn.Value = fn;

            OracleParameter oln = new OracleParameter();
            oln.OracleDbType = OracleDbType.Varchar2;
            oln.Value = ln;

            OracleParameter ogen = new OracleParameter();
            ogen.OracleDbType = OracleDbType.Varchar2;
            ogen.Value = gen;

            OracleParameter oeml = new OracleParameter();
            oeml.OracleDbType = OracleDbType.Varchar2;
            oeml.Value = eml;

            OracleParameter ophn = new OracleParameter();
            ophn.OracleDbType = OracleDbType.Int32;
            ophn.Value = phn;

            OracleParameter oadd = new OracleParameter();
            oadd.OracleDbType = OracleDbType.Varchar2;
            oadd.Value = add;

            OracleParameter ousr = new OracleParameter();
            ousr.OracleDbType = OracleDbType.Varchar2;
            ousr.Value = usr;

            OracleParameter ops = new OracleParameter();
            ops.OracleDbType = OracleDbType.Varchar2;
            ops.Value = ps;

            OracleConnection conn = new OracleConnection(connstr);
            conn.Open();

            OracleCommand cmd = new OracleCommand();
            cmd.Connection = conn;

            cmd.CommandText = "insert into staff values (:1, :2, :3, :4, :5, :6, :7, :8, :9)";
            cmd.CommandType = CommandType.Text;
            cmd.Parameters.Add(ofid);
            cmd.Parameters.Add(ofn);
            cmd.Parameters.Add(oln);
            cmd.Parameters.Add(ogen);
            cmd.Parameters.Add(oeml);
            cmd.Parameters.Add(ophn);
            cmd.Parameters.Add(oadd);
            cmd.Parameters.Add(ousr);
            cmd.Parameters.Add(ops);

            try
            {
                temp = cmd.ExecuteNonQuery();
                if (temp > 0)
                {
                    if (flag == 0)
```

```csharp
                {
                    getdatagrid();
                }


                MessageBox.Show("Success, Data saved!", "Result",
MessageBoxButtons.OK, MessageBoxIcon.Information);
                }
                else
                {
                    MessageBox.Show("Error: Try again!", "Result",
MessageBoxButtons.OK, MessageBoxIcon.Error);
                }
            }
            catch (Oracle.DataAccess.Client.OracleException)
            {
                MessageBox.Show("Error: Oracle Exception!", "Result",
MessageBoxButtons.OK, MessageBoxIcon.Error);
            }

            conn.Dispose();

            if (flag == 1)
            {
                this.Hide();
            }
        }

        private void button2_Click(object sender, EventArgs e)
        {
            firstname.Clear();
            lastname.Clear();

            male.Checked = false;
            female.Checked = false;

            email.Clear();
            phoneno.Clear();
            address.Clear();

            user.Clear();
            pass.Clear();
        }

        private void button4_Click(object sender, EventArgs e)
        {
            Int32 fid = Int32.Parse(id.Text);
            String fn = firstname.Text;
            String ln = lastname.Text;
            String gen;
            String eml = email.Text;
            Int32 phn;
            String add = address.Text;
            String usr = user.Text;
            String ps = pass.Text;

            if (male.Checked)
            {
                gen = male.Text;
            }
            else if (female.Checked)
            {
```
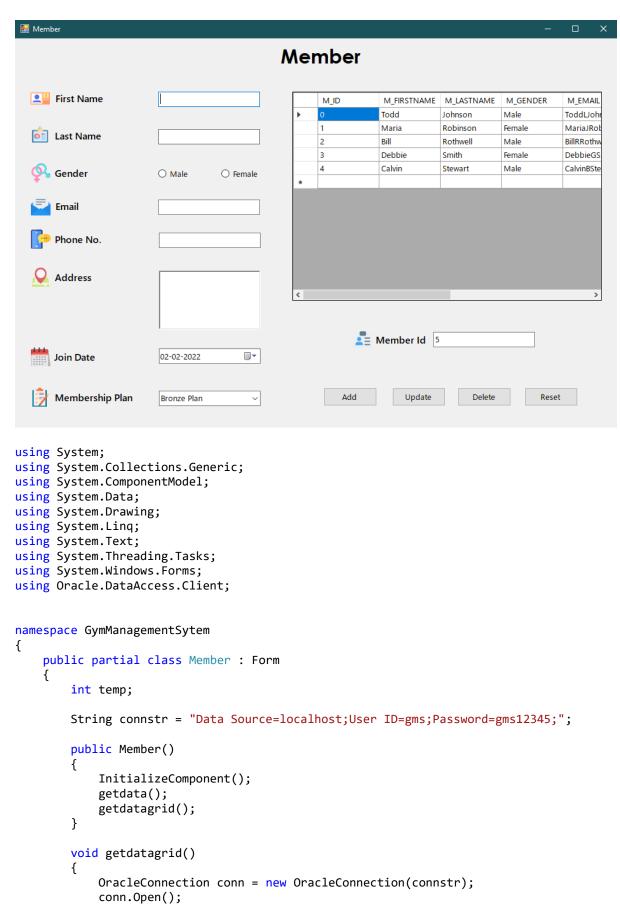
```csharp
                gen = female.Text;
            }
            else
            {
                gen = "";
            }

            if (phoneno.Text != "")
            {
                phn = Int32.Parse(phoneno.Text);
            }
            else
            {
                phn = 0;
            }

            OracleParameter ofid = new OracleParameter();
            ofid.OracleDbType = OracleDbType.Int32;
            ofid.Value = fid;

            OracleParameter ofn = new OracleParameter();
            ofn.OracleDbType = OracleDbType.Varchar2;
            ofn.Value = fn;

            OracleParameter oln = new OracleParameter();
            oln.OracleDbType = OracleDbType.Varchar2;
            oln.Value = ln;

            OracleParameter ogen = new OracleParameter();
            ogen.OracleDbType = OracleDbType.Varchar2;
            ogen.Value = gen;

            OracleParameter oeml = new OracleParameter();
            oeml.OracleDbType = OracleDbType.Varchar2;
            oeml.Value = eml;

            OracleParameter ophn = new OracleParameter();
            ophn.OracleDbType = OracleDbType.Int32;
            ophn.Value = phn;

            OracleParameter oadd = new OracleParameter();
            oadd.OracleDbType = OracleDbType.Varchar2;
            oadd.Value = add;

            OracleParameter ousr = new OracleParameter();
            ousr.OracleDbType = OracleDbType.Varchar2;
            ousr.Value = usr;

            OracleParameter ops = new OracleParameter();
            ops.OracleDbType = OracleDbType.Varchar2;
            ops.Value = ps;

            OracleConnection conn = new OracleConnection(connstr);
            conn.Open();

            OracleCommand cmd = new OracleCommand();
            cmd.Connection = conn;

            cmd.CommandText = "update staff set s_id = :1, s_firstname = :2,
s_lastname = :3, s_gender = :4, s_email = :5, s_phoneno = :6, s_address = :7,
s_username = :8, s_password = :9";
            cmd.CommandType = CommandType.Text;
```

```csharp
            cmd.Parameters.Add(ofid);
            cmd.Parameters.Add(ofn);
            cmd.Parameters.Add(oln);
            cmd.Parameters.Add(ogen);
            cmd.Parameters.Add(oeml);
            cmd.Parameters.Add(ophn);
            cmd.Parameters.Add(oadd);
            cmd.Parameters.Add(ousr);
            cmd.Parameters.Add(ops);

            try
            {
                temp = cmd.ExecuteNonQuery();
                if (temp > 0)
                {
                    getdatagrid();
                    MessageBox.Show("Success, Data saved!", "Result",
MessageBoxButtons.OK, MessageBoxIcon.Information);
                }
                else
                {
                    MessageBox.Show("Error: Try again!", "Result",
MessageBoxButtons.OK, MessageBoxIcon.Error);
                }
            }
            catch (Oracle.DataAccess.Client.OracleException)
            {
                MessageBox.Show("Error: Oracle Exception!", "Result",
MessageBoxButtons.OK, MessageBoxIcon.Error);
            }

            conn.Dispose();
        }

        private void button3_Click(object sender, EventArgs e)
        {
            Int32 fid = Int32.Parse(id.Text);

            OracleParameter ofid = new OracleParameter();
            ofid.OracleDbType = OracleDbType.Int32;
            ofid.Value = fid;

            OracleConnection conn = new OracleConnection(connstr);
            conn.Open();

            OracleCommand cmd = new OracleCommand();
            cmd.Connection = conn;

            cmd.CommandText = "delete from staff where s_id = :1";
            cmd.CommandType = CommandType.Text;
            cmd.Parameters.Add(ofid);

            try
            {
                temp = cmd.ExecuteNonQuery();
                if (temp > 0)
                {
                    getdatagrid();
                    MessageBox.Show("Success, Data saved!", "Result",
MessageBoxButtons.OK, MessageBoxIcon.Information);
                }
                else
```

```csharp
                {
                    MessageBox.Show("Error: Try again!", "Result",
MessageBoxButtons.OK, MessageBoxIcon.Error);
                }
            }
            catch (Oracle.DataAccess.Client.OracleException)
            {
                MessageBox.Show("Error: Oracle Exception!", "Result",
MessageBoxButtons.OK, MessageBoxIcon.Error);
            }

            conn.Dispose();
        }
    }
}
```

Member Form


```csharp
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 Oracle.DataAccess.Client;

namespace GymManagementSytem
{
    public partial class Member : Form
    {
        int temp;

        String connstr = "Data Source=localhost;User ID=gms;Password=gms12345;";

        public Member()
        {
            InitializeComponent();
            getdata();
            getdatagrid();
        }

        void getdatagrid()
        {
            OracleConnection conn = new OracleConnection(connstr);
            conn.Open();
```

```csharp
        OracleCommand cmd = new OracleCommand();
        cmd.Connection = conn;

        cmd.CommandText = "select * from member";
        cmd.CommandType = CommandType.Text;

        try
        {
            OracleDataAdapter oda = new OracleDataAdapter();
            oda.SelectCommand = cmd;

            DataTable dt = new DataTable();
            oda.Fill(dt);

            id.Text = dt.Rows.Count.ToString();

            BindingSource bs = new BindingSource();

            bs.DataSource = dt;
            datagrid.DataSource = bs;
            oda.Update(dt);
        }
        catch (Exception ex)
        {
            MessageBox.Show(ex.Message);
        }

        conn.Dispose();
    }

    void getdata()
    {
        OracleConnection conn = new OracleConnection(connstr);
        conn.Open();

        OracleCommand cmd = new OracleCommand();
        cmd.Connection = conn;

        cmd.CommandText = "select me_membershipname from membership";
        cmd.CommandType = CommandType.Text;

        OracleDataReader dr = cmd.ExecuteReader();

        while (dr.Read())
        {
            String pln = dr.GetString(0);
            membershipplan.Items.Add(pln);
            membershipplan.SelectedIndex = 0;
        }

        conn.Dispose();
    }

    private void button1_Click(object sender, EventArgs e)
    {
        Int32 fid = Int32.Parse(id.Text);
        String fn = firstname.Text;
        String ln = lastname.Text;
        String gen;
        String eml = email.Text;
        Int32 phn;
```

```csharp
String add = address.Text;
String jd = joindate.Text;
String mempln = membershipplan.Text;

if (male.Checked)
{
    gen = male.Text;
}
else if (female.Checked)
{
    gen = female.Text;
}
else
{
    gen = "";
}

if (phoneno.Text != "")
{
    phn = Int32.Parse(phoneno.Text);
}
else
{
    phn = 0;
}

OracleParameter ofid = new OracleParameter();
ofid.OracleDbType = OracleDbType.Int32;
ofid.Value = fid;

OracleParameter ofn = new OracleParameter();
ofn.OracleDbType = OracleDbType.Varchar2;
ofn.Value = fn;

OracleParameter oln = new OracleParameter();
oln.OracleDbType = OracleDbType.Varchar2;
oln.Value = ln;

OracleParameter ogen = new OracleParameter();
ogen.OracleDbType = OracleDbType.Varchar2;
ogen.Value = gen;

OracleParameter oeml = new OracleParameter();
oeml.OracleDbType = OracleDbType.Varchar2;
oeml.Value = eml;

OracleParameter ophn = new OracleParameter();
ophn.OracleDbType = OracleDbType.Int32;
ophn.Value = phn;

OracleParameter oadd = new OracleParameter();
oadd.OracleDbType = OracleDbType.Varchar2;
oadd.Value = add;

OracleParameter ojd = new OracleParameter();
ojd.OracleDbType = OracleDbType.Varchar2;
ojd.Value = jd;

OracleParameter omempln = new OracleParameter();
omempln.OracleDbType = OracleDbType.Varchar2;
omempln.Value = mempln;
```
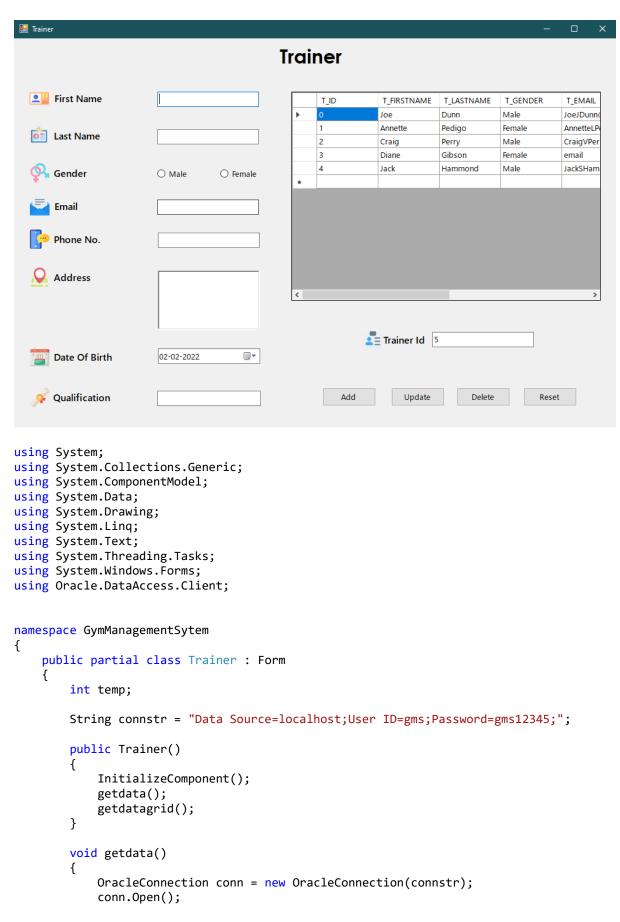
```csharp
            OracleConnection conn = new OracleConnection(connstr);
            conn.Open();

            OracleCommand cmd = new OracleCommand();
            cmd.Connection = conn;

            cmd.CommandText = "insert into member values (:1, :2, :3, :4, :5, :6, :7,
:8, :9)";
            cmd.CommandType = CommandType.Text;
            cmd.Parameters.Add(ofid);
            cmd.Parameters.Add(ofn);
            cmd.Parameters.Add(oln);
            cmd.Parameters.Add(ogen);
            cmd.Parameters.Add(oeml);
            cmd.Parameters.Add(ophn);
            cmd.Parameters.Add(oadd);
            cmd.Parameters.Add(ojd);
            cmd.Parameters.Add(omempln);

            try
            {
                temp = cmd.ExecuteNonQuery();
                if (temp > 0)
                {
                    getdatagrid();
                    MessageBox.Show("Success, Data saved!", "Result",
MessageBoxButtons.OK, MessageBoxIcon.Information);
                }
                else
                {
                    MessageBox.Show("Error: Try again!", "Result",
MessageBoxButtons.OK, MessageBoxIcon.Error);
                }
            }
            catch (Oracle.DataAccess.Client.OracleException)
            {
                MessageBox.Show("Error: Oracle Exception!", "Result",
MessageBoxButtons.OK, MessageBoxIcon.Error);
            }

            conn.Dispose();
        }

        private void button2_Click(object sender, EventArgs e)
        {
            firstname.Clear();
            lastname.Clear();

            male.Checked = false;
            female.Checked = false;

            email.Clear();
            phoneno.Clear();
            address.Clear();

            joindate.Value = DateTime.Now;

            membershipplan.ResetText();
        }

        private void button4_Click(object sender, EventArgs e)
        {
```

```csharp
Int32 fid = Int32.Parse(id.Text);
String fn = firstname.Text;
String ln = lastname.Text;
String gen;
String eml = email.Text;
Int32 phn;
String add = address.Text;
String jd = joindate.Text;
String mempln = membershipplan.Text;

if (male.Checked)
{
    gen = male.Text;
}
else if (female.Checked)
{
    gen = female.Text;
}
else
{
    gen = "";
}

if (phoneno.Text != "")
{
    phn = Int32.Parse(phoneno.Text);
}
else
{
    phn = 0;
}

OracleParameter ofid = new OracleParameter();
ofid.OracleDbType = OracleDbType.Int32;
ofid.Value = fid;

OracleParameter ofn = new OracleParameter();
ofn.OracleDbType = OracleDbType.Varchar2;
ofn.Value = fn;

OracleParameter oln = new OracleParameter();
oln.OracleDbType = OracleDbType.Varchar2;
oln.Value = ln;

OracleParameter ogen = new OracleParameter();
ogen.OracleDbType = OracleDbType.Varchar2;
ogen.Value = gen;

OracleParameter oeml = new OracleParameter();
oeml.OracleDbType = OracleDbType.Varchar2;
oeml.Value = eml;

OracleParameter ophn = new OracleParameter();
ophn.OracleDbType = OracleDbType.Int32;
ophn.Value = phn;

OracleParameter oadd = new OracleParameter();
oadd.OracleDbType = OracleDbType.Varchar2;
oadd.Value = add;

OracleParameter ojd = new OracleParameter();
ojd.OracleDbType = OracleDbType.Varchar2;
```

```csharp
            ojd.Value = jd;

            OracleParameter omempln = new OracleParameter();
            omempln.OracleDbType = OracleDbType.Varchar2;
            omempln.Value = mempln;

            OracleConnection conn = new OracleConnection(connstr);
            conn.Open();

            OracleCommand cmd = new OracleCommand();
            cmd.Connection = conn;

            cmd.CommandText = "update member set m_id = :1, m_firstname = :2,
m_lastname = :3, m_gender = :4, m_email = :5, m_phoneno = :6, m_address = :7,
m_joindate = :8, m_memplan = :9";
            cmd.CommandType = CommandType.Text;
            cmd.Parameters.Add(ofid);
            cmd.Parameters.Add(ofn);
            cmd.Parameters.Add(oln);
            cmd.Parameters.Add(ogen);
            cmd.Parameters.Add(oeml);
            cmd.Parameters.Add(ophn);
            cmd.Parameters.Add(oadd);
            cmd.Parameters.Add(ojd);
            cmd.Parameters.Add(omempln);

            try
            {
                temp = cmd.ExecuteNonQuery();
                if (temp > 0)
                {
                    getdatagrid();
                    MessageBox.Show("Success, Data saved!", "Result",
MessageBoxButtons.OK, MessageBoxIcon.Information);
                }
                else
                {
                    MessageBox.Show("Error: Try again!", "Result",
MessageBoxButtons.OK, MessageBoxIcon.Error);
                }
            }
            catch (Oracle.DataAccess.Client.OracleException)
            {
                MessageBox.Show("Error: Oracle Exception!", "Result",
MessageBoxButtons.OK, MessageBoxIcon.Error);
            }

            conn.Dispose();
        }

        private void button3_Click(object sender, EventArgs e)
        {
            Int32 fid = Int32.Parse(id.Text);

            OracleParameter ofid = new OracleParameter();
            ofid.OracleDbType = OracleDbType.Int32;
            ofid.Value = fid;

            OracleConnection conn = new OracleConnection(connstr);
            conn.Open();

            OracleCommand cmd = new OracleCommand();
```

```csharp
            cmd.Connection = conn;

            cmd.CommandText = "delete from member where m_id = :1";
            cmd.CommandType = CommandType.Text;
            cmd.Parameters.Add(ofid);

            try
            {
                temp = cmd.ExecuteNonQuery();
                if (temp > 0)
                {
                    getdatagrid();
                    MessageBox.Show("Success, Data saved!", "Result",
MessageBoxButtons.OK, MessageBoxIcon.Information);
                }
                else
                {
                    MessageBox.Show("Error: Try again!", "Result",
MessageBoxButtons.OK, MessageBoxIcon.Error);
                }
            }
            catch (Oracle.DataAccess.Client.OracleException)
            {
                MessageBox.Show("Error: Oracle Exception!", "Result",
MessageBoxButtons.OK, MessageBoxIcon.Error);
            }

            conn.Dispose();
        }
    }
}
```

Trainer Form


```csharp
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 Oracle.DataAccess.Client;

namespace GymManagementSytem
{
    public partial class Trainer : Form
    {
        int temp;

        String connstr = "Data Source=localhost;User ID=gms;Password=gms12345;";

        public Trainer()
        {
            InitializeComponent();
            getdata();
            getdatagrid();
        }

        void getdata()
        {
            OracleConnection conn = new OracleConnection(connstr);
            conn.Open();
```

```csharp
            OracleCommand cmd = new OracleCommand();
            cmd.Connection = conn;

            cmd.CommandText = "select * from trainer";
            cmd.CommandType = CommandType.Text;

            try
            {
                OracleDataAdapter oda = new OracleDataAdapter();
                oda.SelectCommand = cmd;

                DataTable dt = new DataTable();
                oda.Fill(dt);

                id.Text = dt.Rows.Count.ToString();
            }
            catch (Exception ex)
            {
                MessageBox.Show(ex.Message);
            }

            conn.Dispose();
        }

        void getdatagrid()
        {
            OracleConnection conn = new OracleConnection(connstr);
            conn.Open();

            OracleCommand cmd = new OracleCommand();
            cmd.Connection = conn;

            cmd.CommandText = "select * from trainer";
            cmd.CommandType = CommandType.Text;

            try
            {
                OracleDataAdapter oda = new OracleDataAdapter();
                oda.SelectCommand = cmd;

                DataTable dt = new DataTable();
                oda.Fill(dt);

                id.Text = dt.Rows.Count.ToString();

                BindingSource bs = new BindingSource();

                bs.DataSource = dt;
                datagrid.DataSource = bs;
                oda.Update(dt);
            }
            catch (Exception ex)
            {
                MessageBox.Show(ex.Message);
            }

            conn.Dispose();
        }

        private void button1_Click(object sender, EventArgs e)
        {
```

```csharp
Int32 fid = Int32.Parse(id.Text);
String fn = firstname.Text;
String ln = lastname.Text;
String gen;
String eml = email.Text;
Int32 phn;
String add = address.Text;
String dob = dateofbirth.Text;
String qual = qualification.Text;

if (male.Checked)
{
    gen = male.Text;
}
else if (female.Checked)
{
    gen = female.Text;
}
else
{
    gen = "";
}

if (phoneno.Text != "")
{
    phn = Int32.Parse(phoneno.Text);
}
else
{
    phn = 0;
}

OracleParameter ofid = new OracleParameter();
ofid.OracleDbType = OracleDbType.Int32;
ofid.Value = fid;

OracleParameter ofn = new OracleParameter();
ofn.OracleDbType = OracleDbType.Varchar2;
ofn.Value = fn;

OracleParameter oln = new OracleParameter();
oln.OracleDbType = OracleDbType.Varchar2;
oln.Value = ln;

OracleParameter ogen = new OracleParameter();
ogen.OracleDbType = OracleDbType.Varchar2;
ogen.Value = gen;

OracleParameter oeml = new OracleParameter();
oeml.OracleDbType = OracleDbType.Varchar2;
oeml.Value = eml;

OracleParameter ophn = new OracleParameter();
ophn.OracleDbType = OracleDbType.Int32;
ophn.Value = phn;

OracleParameter oadd = new OracleParameter();
oadd.OracleDbType = OracleDbType.Varchar2;
oadd.Value = add;

OracleParameter odob = new OracleParameter();
odob.OracleDbType = OracleDbType.Varchar2;
```
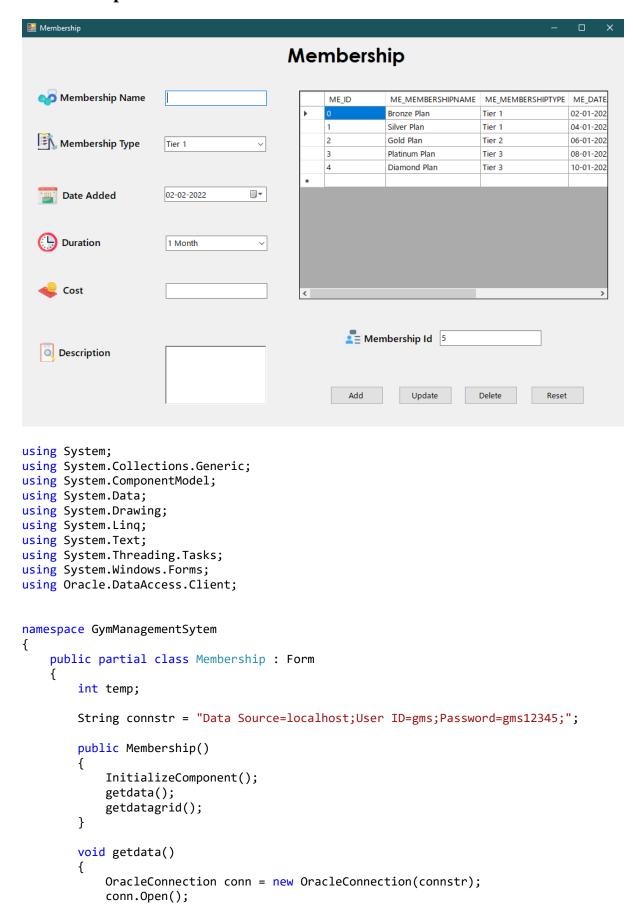
```csharp
            odob.Value = dob;

            OracleParameter oqual = new OracleParameter();
            oqual.OracleDbType = OracleDbType.Varchar2;
            oqual.Value = qual;

            OracleConnection conn = new OracleConnection(connstr);
            conn.Open();

            OracleCommand cmd = new OracleCommand();
            cmd.Connection = conn;

            cmd.CommandText = "insert into trainer values (:1, :2, :3, :4, :5, :6, :7,
:8, :9)";
            cmd.CommandType = CommandType.Text;
            cmd.Parameters.Add(ofid);
            cmd.Parameters.Add(ofn);
            cmd.Parameters.Add(oln);
            cmd.Parameters.Add(ogen);
            cmd.Parameters.Add(oeml);
            cmd.Parameters.Add(ophn);
            cmd.Parameters.Add(oadd);
            cmd.Parameters.Add(odob);
            cmd.Parameters.Add(oqual);

            try
            {
                temp = cmd.ExecuteNonQuery();
                if (temp > 0)
                {
                    getdatagrid();
                    MessageBox.Show("Success, Data saved!", "Result",
MessageBoxButtons.OK, MessageBoxIcon.Information);
                }
                else
                {
                    MessageBox.Show("Error: Try again!", "Result",
MessageBoxButtons.OK, MessageBoxIcon.Error);
                }
            }
            catch (Oracle.DataAccess.Client.OracleException)
            {
                MessageBox.Show("Error: Oracle Exception!", "Result",
MessageBoxButtons.OK, MessageBoxIcon.Error);
            }

            conn.Dispose();
        }

        private void button2_Click(object sender, EventArgs e)
        {
            firstname.Clear();
            lastname.Clear();

            male.Checked = false;
            female.Checked = false;

            email.Clear();
            phoneno.Clear();
            address.Clear();

            dateofbirth.Value = DateTime.Now;
```

```csharp
        qualification.ResetText();
}

private void button4_Click(object sender, EventArgs e)
{
    Int32 fid = Int32.Parse(id.Text);
    String fn = firstname.Text;
    String ln = lastname.Text;
    String gen;
    String eml = email.Text;
    Int32 phn;
    String add = address.Text;
    String dob = dateofbirth.Text;
    String qual = qualification.Text;

    if (male.Checked)
    {
        gen = male.Text;
    }
    else if (female.Checked)
    {
        gen = female.Text;
    }
    else
    {
        gen = "";
    }

    if (phoneno.Text != "")
    {
        phn = Int32.Parse(phoneno.Text);
    }
    else
    {
        phn = 0;
    }

    OracleParameter ofid = new OracleParameter();
    ofid.OracleDbType = OracleDbType.Int32;
    ofid.Value = fid;

    OracleParameter ofn = new OracleParameter();
    ofn.OracleDbType = OracleDbType.Varchar2;
    ofn.Value = fn;

    OracleParameter oln = new OracleParameter();
    oln.OracleDbType = OracleDbType.Varchar2;
    oln.Value = ln;

    OracleParameter ogen = new OracleParameter();
    ogen.OracleDbType = OracleDbType.Varchar2;
    ogen.Value = gen;

    OracleParameter oeml = new OracleParameter();
    oeml.OracleDbType = OracleDbType.Varchar2;
    oeml.Value = eml;

    OracleParameter ophn = new OracleParameter();
    ophn.OracleDbType = OracleDbType.Int32;
    ophn.Value = phn;
```

```csharp
            OracleParameter oadd = new OracleParameter();
            oadd.OracleDbType = OracleDbType.Varchar2;
            oadd.Value = add;

            OracleParameter odob = new OracleParameter();
            odob.OracleDbType = OracleDbType.Varchar2;
            odob.Value = dob;

            OracleParameter oqual = new OracleParameter();
            oqual.OracleDbType = OracleDbType.Varchar2;
            oqual.Value = qual;

            OracleConnection conn = new OracleConnection(connstr);
            conn.Open();

            OracleCommand cmd = new OracleCommand();
            cmd.Connection = conn;

            cmd.CommandText = "update trainer set t_id = :1, t_firstname = :2,
t_lastname = :3, t_gender = :4, t_email = :5, t_phoneno = :6, t_address = :7,
t_dateofbirth = :8, t_qualification = :9";
            cmd.CommandType = CommandType.Text;
            cmd.Parameters.Add(ofid);
            cmd.Parameters.Add(ofn);
            cmd.Parameters.Add(oln);
            cmd.Parameters.Add(ogen);
            cmd.Parameters.Add(oeml);
            cmd.Parameters.Add(ophn);
            cmd.Parameters.Add(oadd);
            cmd.Parameters.Add(odob);
            cmd.Parameters.Add(oqual);

            try
            {
                temp = cmd.ExecuteNonQuery();
                if (temp > 0)
                {
                    getdatagrid();
                    MessageBox.Show("Success, Data saved!", "Result",
MessageBoxButtons.OK, MessageBoxIcon.Information);
                }
                else
                {
                    MessageBox.Show("Error: Try again!", "Result",
MessageBoxButtons.OK, MessageBoxIcon.Error);
                }
            }
            catch (Oracle.DataAccess.Client.OracleException)
            {
                MessageBox.Show("Error: Oracle Exception!", "Result",
MessageBoxButtons.OK, MessageBoxIcon.Error);
            }

            conn.Dispose();
        }

        private void button3_Click(object sender, EventArgs e)
        {
            Int32 fid = Int32.Parse(id.Text);

            OracleParameter ofid = new OracleParameter();
            ofid.OracleDbType = OracleDbType.Int32;
```

```csharp
            ofid.Value = fid;

            OracleConnection conn = new OracleConnection(connstr);
            conn.Open();

            OracleCommand cmd = new OracleCommand();
            cmd.Connection = conn;

            cmd.CommandText = "delete from trainer where t_id = :1";
            cmd.CommandType = CommandType.Text;
            cmd.Parameters.Add(ofid);

            try
            {
                temp = cmd.ExecuteNonQuery();
                if (temp > 0)
                {
                    getdatagrid();
                    MessageBox.Show("Success, Data saved!", "Result",
MessageBoxButtons.OK, MessageBoxIcon.Information);
                }
                else
                {
                    MessageBox.Show("Error: Try again!", "Result",
MessageBoxButtons.OK, MessageBoxIcon.Error);
                }
            }
            catch (Oracle.DataAccess.Client.OracleException)
            {
                MessageBox.Show("Error: Oracle Exception!", "Result",
MessageBoxButtons.OK, MessageBoxIcon.Error);
            }

            conn.Dispose();
        }
    }
}
```

Membership Form


```csharp
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 Oracle.DataAccess.Client;

namespace GymManagementSytem
{
    public partial class Membership : Form
    {
        int temp;

        String connstr = "Data Source=localhost;User ID=gms;Password=gms12345;";

        public Membership()
        {
            InitializeComponent();
            getdata();
            getdatagrid();
        }

        void getdata()
        {
            OracleConnection conn = new OracleConnection(connstr);
            conn.Open();
```

```csharp
            OracleCommand cmd = new OracleCommand();
            cmd.Connection = conn;

            cmd.CommandText = "select * from membership";
            cmd.CommandType = CommandType.Text;

            try
            {
                OracleDataAdapter oda = new OracleDataAdapter();
                oda.SelectCommand = cmd;

                DataTable dt = new DataTable();
                oda.Fill(dt);

                id.Text = dt.Rows.Count.ToString();

                membershiptype.SelectedIndex = 0;
                duration.SelectedIndex = 0;
            }
            catch (Exception ex)
            {
                MessageBox.Show(ex.Message);
            }

            conn.Dispose();
        }

        void getdatagrid()
        {
            OracleConnection conn = new OracleConnection(connstr);
            conn.Open();

            OracleCommand cmd = new OracleCommand();
            cmd.Connection = conn;

            cmd.CommandText = "select * from membership";
            cmd.CommandType = CommandType.Text;

            try
            {
                OracleDataAdapter oda = new OracleDataAdapter();
                oda.SelectCommand = cmd;

                DataTable dt = new DataTable();
                oda.Fill(dt);

                id.Text = dt.Rows.Count.ToString();

                BindingSource bs = new BindingSource();

                bs.DataSource = dt;
                datagrid.DataSource = bs;
                oda.Update(dt);
            }
            catch (Exception ex)
            {
                MessageBox.Show(ex.Message);
            }

            conn.Dispose();
        }
```

```csharp
        private void button1_Click(object sender, EventArgs e)
        {
            Int32 fid = Int32.Parse(id.Text);
            String memnm = membershipname.Text;
            String memtyp = membershiptype.Text;
            String dadd = dateadded.Text;
            String memdur = duration.Text;
            Int32 cst;
            String desc = description.Text;

            if (cost.Text != "")
            {
                cst = Int32.Parse(cost.Text);
            }
            else
            {
                cst = 0;
            }

            OracleParameter ofid = new OracleParameter();
            ofid.OracleDbType = OracleDbType.Int32;
            ofid.Value = fid;

            OracleParameter omemnm = new OracleParameter();
            omemnm.OracleDbType = OracleDbType.Varchar2;
            omemnm.Value = memnm;

            OracleParameter omemtyp = new OracleParameter();
            omemtyp.OracleDbType = OracleDbType.Varchar2;
            omemtyp.Value = memtyp;

            OracleParameter odadd = new OracleParameter();
            odadd.OracleDbType = OracleDbType.Varchar2;
            odadd.Value = odadd;

            OracleParameter odur = new OracleParameter();
            odur.OracleDbType = OracleDbType.Varchar2;
            odur.Value = odur;

            OracleParameter ocst = new OracleParameter();
            ocst.OracleDbType = OracleDbType.Int32;
            ocst.Value = cst;

            OracleParameter odesc = new OracleParameter();
            odesc.OracleDbType = OracleDbType.Varchar2;
            odesc.Value = desc;

            OracleConnection conn = new OracleConnection(connstr);
            conn.Open();

            OracleCommand cmd = new OracleCommand();
            cmd.Connection = conn;

            cmd.CommandText = "insert into membership values (:1, :2, :3, :4, :5, :6, :7)";
            cmd.CommandType = CommandType.Text;
            cmd.Parameters.Add(ofid);
            cmd.Parameters.Add(omemnm);
            cmd.Parameters.Add(omemtyp);
            cmd.Parameters.Add(odadd);
            cmd.Parameters.Add(odur);
```
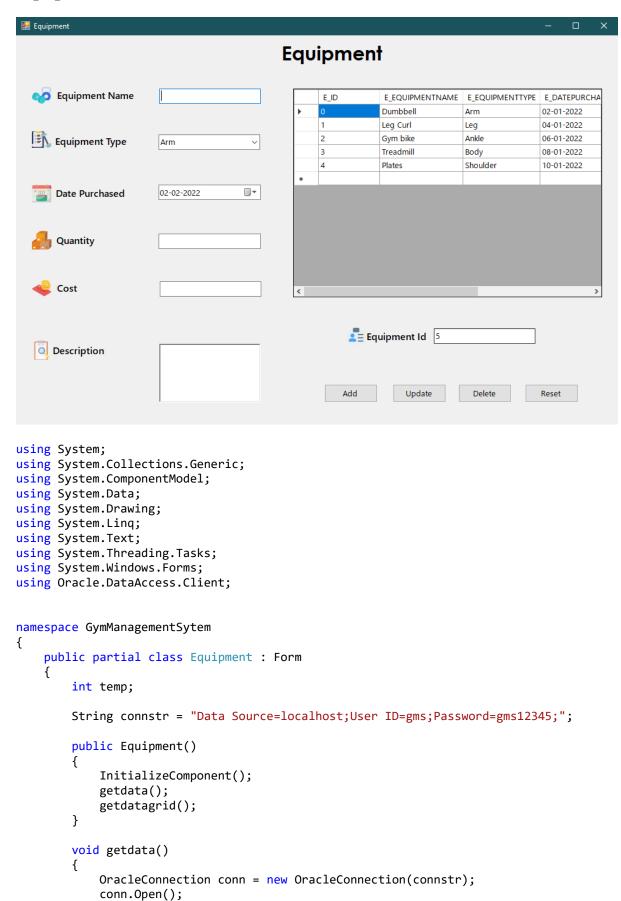
```csharp
            cmd.Parameters.Add(ocst);
            cmd.Parameters.Add(odesc);

            try
            {
                temp = cmd.ExecuteNonQuery();
                if (temp > 0)
                {
                    getdatagrid();
                    MessageBox.Show("Success, Data saved!", "Result",
MessageBoxButtons.OK, MessageBoxIcon.Information);
                }
                else
                {
                    MessageBox.Show("Error: Try again!", "Result",
MessageBoxButtons.OK, MessageBoxIcon.Error);
                }
            }
            catch (Oracle.DataAccess.Client.OracleException)
            {
                MessageBox.Show("Error: Oracle Exception!", "Result",
MessageBoxButtons.OK, MessageBoxIcon.Error);
            }

            conn.Dispose();
        }

        private void button2_Click(object sender, EventArgs e)
        {
            membershipname.Clear();
            membershiptype.ResetText();

            dateadded.Value = DateTime.Now;

            duration.ResetText();
            cost.Clear();
            description.Clear();
        }

        private void button4_Click(object sender, EventArgs e)
        {
            Int32 fid = Int32.Parse(id.Text);
            String memnm = membershipname.Text;
            String memtyp = membershiptype.Text;
            String dadd = dateadded.Text;
            String memdur = duration.Text;
            Int32 cst;
            String desc = description.Text;

            if (cost.Text != "")
            {
                cst = Int32.Parse(cost.Text);
            }
            else
            {
                cst = 0;
            }

            OracleParameter ofid = new OracleParameter();
            ofid.OracleDbType = OracleDbType.Int32;
            ofid.Value = fid;
```

```csharp
            OracleParameter omemnm = new OracleParameter();
            omemnm.OracleDbType = OracleDbType.Varchar2;
            omemnm.Value = memnm;

            OracleParameter omemtyp = new OracleParameter();
            omemtyp.OracleDbType = OracleDbType.Varchar2;
            omemtyp.Value = memtyp;

            OracleParameter odadd = new OracleParameter();
            odadd.OracleDbType = OracleDbType.Varchar2;
            odadd.Value = odadd;

            OracleParameter odur = new OracleParameter();
            odur.OracleDbType = OracleDbType.Varchar2;
            odur.Value = odur;

            OracleParameter ocst = new OracleParameter();
            ocst.OracleDbType = OracleDbType.Int32;
            ocst.Value = cst;

            OracleParameter odesc = new OracleParameter();
            odesc.OracleDbType = OracleDbType.Varchar2;
            odesc.Value = desc;

            OracleConnection conn = new OracleConnection(connstr);
            conn.Open();

            OracleCommand cmd = new OracleCommand();
            cmd.Connection = conn;

            cmd.CommandText = "update membership set me_id = :1, me_membershipname =
:2, me_membershiptype = :3, me_datepurchased = :4, me_quantity = :5, me_cost = :6,
me_description = :7";
            cmd.CommandType = CommandType.Text;
            cmd.Parameters.Add(ofid);
            cmd.Parameters.Add(omemnm);
            cmd.Parameters.Add(omemtyp);
            cmd.Parameters.Add(odadd);
            cmd.Parameters.Add(odur);
            cmd.Parameters.Add(ocst);
            cmd.Parameters.Add(odesc);

            try
            {
                temp = cmd.ExecuteNonQuery();
                if (temp > 0)
                {
                    getdatagrid();
                    MessageBox.Show("Success, Data saved!", "Result",
MessageBoxButtons.OK, MessageBoxIcon.Information);
                }
                else
                {
                    MessageBox.Show("Error: Try again!", "Result",
MessageBoxButtons.OK, MessageBoxIcon.Error);
                }
            }
            catch (Oracle.DataAccess.Client.OracleException)
            {
                MessageBox.Show("Error: Oracle Exception!", "Result",
MessageBoxButtons.OK, MessageBoxIcon.Error);
            }
```

```csharp
            conn.Dispose();
        }

        private void button3_Click(object sender, EventArgs e)
        {
            Int32 fid = Int32.Parse(id.Text);

            OracleParameter ofid = new OracleParameter();
            ofid.OracleDbType = OracleDbType.Int32;
            ofid.Value = fid;

            OracleConnection conn = new OracleConnection(connstr);
            conn.Open();

            OracleCommand cmd = new OracleCommand();
            cmd.Connection = conn;

            cmd.CommandText = "delete from membership where me_id = :1";
            cmd.CommandType = CommandType.Text;
            cmd.Parameters.Add(ofid);

            try
            {
                temp = cmd.ExecuteNonQuery();
                if (temp > 0)
                {
                    getdatagrid();
                    MessageBox.Show("Success, Data saved!", "Result",
MessageBoxButtons.OK, MessageBoxIcon.Information);
                }
                else
                {
                    MessageBox.Show("Error: Try again!", "Result",
MessageBoxButtons.OK, MessageBoxIcon.Error);
                }
            }
            catch (Oracle.DataAccess.Client.OracleException)
            {
                MessageBox.Show("Error: Oracle Exception!", "Result",
MessageBoxButtons.OK, MessageBoxIcon.Error);
            }

            conn.Dispose();
        }
    }
}
```

Equipment Form


```csharp
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 Oracle.DataAccess.Client;

namespace GymManagementSytem
{
    public partial class Equipment : Form
    {
        int temp;

        String connstr = "Data Source=localhost;User ID=gms;Password=gms12345;";

        public Equipment()
        {
            InitializeComponent();
            getdata();
            getdatagrid();
        }

        void getdata()
        {
            OracleConnection conn = new OracleConnection(connstr);
            conn.Open();
```

```csharp
            OracleCommand cmd = new OracleCommand();
            cmd.Connection = conn;

            cmd.CommandText = "select * from equipment";
            cmd.CommandType = CommandType.Text;

            try
            {
                OracleDataAdapter oda = new OracleDataAdapter();
                oda.SelectCommand = cmd;

                DataTable dt = new DataTable();
                oda.Fill(dt);

                id.Text = dt.Rows.Count.ToString();

                equipmenttype.SelectedIndex = 0;
            }
            catch (Exception ex)
            {
                MessageBox.Show(ex.Message);
            }

            conn.Dispose();
        }

        void getdatagrid()
        {
            OracleConnection conn = new OracleConnection(connstr);
            conn.Open();

            OracleCommand cmd = new OracleCommand();
            cmd.Connection = conn;

            cmd.CommandText = "select * from equipment";
            cmd.CommandType = CommandType.Text;

            try
            {
                OracleDataAdapter oda = new OracleDataAdapter();
                oda.SelectCommand = cmd;

                DataTable dt = new DataTable();
                oda.Fill(dt);

                id.Text = dt.Rows.Count.ToString();

                BindingSource bs = new BindingSource();

                bs.DataSource = dt;
                datagrid.DataSource = bs;
                oda.Update(dt);
            }
            catch (Exception ex)
            {
                MessageBox.Show(ex.Message);
            }

            conn.Dispose();
        }
```

```csharp
private void button1_Click(object sender, EventArgs e)
{
    Int32 fid = Int32.Parse(id.Text);
    String eqpn = equipmentname.Text;
    String eqptyp = equipmenttype.Text;
    String dphd = datepurchased.Text;
    Int32 qty;
    Int32 cst;
    String desc = description.Text;

    if (quantity.Text != "")
    {
        qty = Int32.Parse(quantity.Text);
    }
    else
    {
        qty = 0;
    }

    if (cost.Text != "")
    {
        cst = Int32.Parse(cost.Text);
    }
    else
    {
        cst = 0;
    }

    OracleParameter ofid = new OracleParameter();
    ofid.OracleDbType = OracleDbType.Int32;
    ofid.Value = fid;

    OracleParameter oeqpn = new OracleParameter();
    oeqpn.OracleDbType = OracleDbType.Varchar2;
    oeqpn.Value = eqpn;

    OracleParameter oeqptyp = new OracleParameter();
    oeqptyp.OracleDbType = OracleDbType.Varchar2;
    oeqptyp.Value = eqptyp;

    OracleParameter odphd = new OracleParameter();
    odphd.OracleDbType = OracleDbType.Varchar2;
    odphd.Value = dphd;

    OracleParameter oqty = new OracleParameter();
    oqty.OracleDbType = OracleDbType.Int32;
    oqty.Value = qty;

    OracleParameter ocst = new OracleParameter();
    ocst.OracleDbType = OracleDbType.Int32;
    ocst.Value = cst;

    OracleParameter odesc = new OracleParameter();
    odesc.OracleDbType = OracleDbType.Varchar2;
    odesc.Value = desc;

    OracleConnection conn = new OracleConnection(connstr);
    conn.Open();

    OracleCommand cmd = new OracleCommand();
    cmd.Connection = conn;
```

```csharp
            cmd.CommandText = "insert into equipment values (:1, :2, :3, :4, :5, :6,
:7)";
            cmd.CommandType = CommandType.Text;
            cmd.Parameters.Add(ofid);
            cmd.Parameters.Add(oeqpn);
            cmd.Parameters.Add(oeqptyp);
            cmd.Parameters.Add(odphd);
            cmd.Parameters.Add(oqty);
            cmd.Parameters.Add(ocst);
            cmd.Parameters.Add(odesc);

            try
            {
                temp = cmd.ExecuteNonQuery();
                if (temp > 0)
                {
                    getdatagrid();
                    MessageBox.Show("Success, Data saved!", "Result",
MessageBoxButtons.OK, MessageBoxIcon.Information);
                }
                else
                {
                    MessageBox.Show("Error: Try again!", "Result",
MessageBoxButtons.OK, MessageBoxIcon.Error);
                }
            }
            catch (Oracle.DataAccess.Client.OracleException)
            {
                MessageBox.Show("Error: Oracle Exception!", "Result",
MessageBoxButtons.OK, MessageBoxIcon.Error);
            }

            conn.Dispose();
        }

        private void button2_Click(object sender, EventArgs e)
        {
            equipmentname.Clear();
            equipmenttype.ResetText();

            datepurchased.Value = DateTime.Now;

            quantity.Clear();
            cost.Clear();
            description.Clear();
        }

        private void button4_Click(object sender, EventArgs e)
        {
            Int32 fid = Int32.Parse(id.Text);
            String eqpn = equipmentname.Text;
            String eqptyp = equipmenttype.Text;
            String dphd = datepurchased.Text;
            Int32 qty;
            Int32 cst;
            String desc = description.Text;

            if (quantity.Text != "")
            {
                qty = Int32.Parse(quantity.Text);
            }
            else
```

```csharp
            {
                qty = 0;
            }

            if (cost.Text != "")
            {
                cst = Int32.Parse(cost.Text);
            }
            else
            {
                cst = 0;
            }

            OracleParameter ofid = new OracleParameter();
            ofid.OracleDbType = OracleDbType.Int32;
            ofid.Value = fid;

            OracleParameter oeqpn = new OracleParameter();
            oeqpn.OracleDbType = OracleDbType.Varchar2;
            oeqpn.Value = eqpn;

            OracleParameter oeqptyp = new OracleParameter();
            oeqptyp.OracleDbType = OracleDbType.Varchar2;
            oeqptyp.Value = eqptyp;

            OracleParameter odphd = new OracleParameter();
            odphd.OracleDbType = OracleDbType.Varchar2;
            odphd.Value = dphd;

            OracleParameter oqty = new OracleParameter();
            oqty.OracleDbType = OracleDbType.Int32;
            oqty.Value = qty;

            OracleParameter ocst = new OracleParameter();
            ocst.OracleDbType = OracleDbType.Int32;
            ocst.Value = cst;

            OracleParameter odesc = new OracleParameter();
            odesc.OracleDbType = OracleDbType.Varchar2;
            odesc.Value = desc;

            OracleConnection conn = new OracleConnection(connstr);
            conn.Open();

            OracleCommand cmd = new OracleCommand();
            cmd.Connection = conn;

            cmd.CommandText = "update equipment set e_id = :1, e_equipmentname = :2,
e_equipmenttype = :3, e_datepurchased = :4, e_quantity = :5, e_cost = :6,
e_description = :7";
            cmd.CommandType = CommandType.Text;
            cmd.Parameters.Add(ofid);
            cmd.Parameters.Add(oeqpn);
            cmd.Parameters.Add(oeqptyp);
            cmd.Parameters.Add(odphd);
            cmd.Parameters.Add(oqty);
            cmd.Parameters.Add(ocst);
            cmd.Parameters.Add(odesc);

            try
            {
                temp = cmd.ExecuteNonQuery();
```

```csharp
            if (temp > 0)
            {
                getdatagrid();
                MessageBox.Show("Success, Data saved!", "Result",
MessageBoxButtons.OK, MessageBoxIcon.Information);
            }
            else
            {
                MessageBox.Show("Error: Try again!", "Result",
MessageBoxButtons.OK, MessageBoxIcon.Error);
            }
        }
        catch (Oracle.DataAccess.Client.OracleException)
        {
            MessageBox.Show("Error: Oracle Exception!", "Result",
MessageBoxButtons.OK, MessageBoxIcon.Error);
        }
        conn.Dispose();
    }

    private void button3_Click(object sender, EventArgs e)
    {
        Int32 fid = Int32.Parse(id.Text);

        OracleParameter ofid = new OracleParameter();
        ofid.OracleDbType = OracleDbType.Int32;
        ofid.Value = fid;

        OracleConnection conn = new OracleConnection(connstr);
        conn.Open();

        OracleCommand cmd = new OracleCommand();
        cmd.Connection = conn;

        cmd.CommandText = "delete from equipment where e_id = :1";
        cmd.CommandType = CommandType.Text;
        cmd.Parameters.Add(ofid);

        try
        {
            temp = cmd.ExecuteNonQuery();
            if (temp > 0)
            {
                getdatagrid();
                MessageBox.Show("Success, Data saved!", "Result",
MessageBoxButtons.OK, MessageBoxIcon.Information);
            }
            else
            {
                MessageBox.Show("Error: Try again!", "Result",
MessageBoxButtons.OK, MessageBoxIcon.Error);
            }
        }
        catch (Oracle.DataAccess.Client.OracleException)
        {
            MessageBox.Show("Error: Oracle Exception!", "Result",
MessageBoxButtons.OK, MessageBoxIcon.Error);
        }
        conn.Dispose();
    }
}
}
```

SQL QUERIES:

create table staff (
  s_id int primary key,
  s_firstname varchar2(25),
  s_lastname varchar2(25),
  s_gender varchar2(25),
  s_email varchar2(50),
  s_phoneno int,
  s_address varchar2(50),
  s_username varchar2(25),
  s_password varchar2(25)
);

create table member (
  m_id int primary key,
  m_firstname varchar2(25),
  m_lastname varchar2(25),
  m_gender varchar2(25),
  m_email varchar2(50),
  m_phoneno int,
  m_address varchar2(50),
  m_joindate varchar2(10),
  m_memplan varchar2(25) references membership (me_membershipname)
);

create table trainer (
  t_id int primary key,
  t_firstname varchar2(25),
  t_lastname varchar2(25),
  t_gender varchar2(25),
  t_email varchar2(50),
  t_phoneno int,
  t_address varchar2(50),
  t_dateofbirth varchar2(10),
  t_qualification varchar2(10)
);

```
create table membership (
  me_id int,
  me_membershipname varchar2(25) primary key,
  me_membershiptype varchar2(25),
  me_dateadded varchar2(25),
  me_duration varchar2(25),
  me_cost int,
  me_description varchar2(50)
);

create table equipment (
  e_id int primary key,
  e_equipmentname varchar2(25),
  e_equipmenttype varchar2(25),
  e_datepurchased varchar2(25),
  e_quantity int,
  e_cost int,
  e_description varchar2(50)
);
```

CONCLUSION:

The **Gymnasium Management System** is with success designed and developed to fulfilling the required necessities for managing a gym. The new computerized system was found to be abundant quicker and reliable and user friendly than the prevailing system, the system has been designed and developed step by step and tested with success. It eliminates the human error cost is minimized and the burden of manual work is reduced as whenever transaction takes place, there is no need to record it in many places manually. This software package allows storing the details of all the data related to member accounts. The system is strong enough to withstand regressive yearly operations under conditions where the database is maintained and cleared over a certain time of span. The implementation of the system in the organization will considerably speedup transaction and make them more efficient.

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