IT LAB Mini Project

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1 Problem Statement & Group Members

1.1 Problem Statement

The aim of the mini project was to design a question bank and web portal which has the following capabilities:

1. Have a well stocked question bank which contains questions on different subjects in adequate number.

2. An administrator can create logins for each faculty against the subject the faculty takes. The administrator also gives a right called subject co-ordinator to the main faculty-in-charge.

3. The faculties should be able to add multiple choice questions, questions and marks for each question. The faculty-in-charge should be able to view all the questions and select among them. He is allowed to set the question paper.

4. The administrator should be able to view the final question paper.

1.2 Group Members

The following people have worked on this project:

Name of Student	**Roll Number**	**Reg. Number**
Ritwik Sarkar	D-48	150905248
Udaya Kumar	D-58	150905328

2 Introduction

This project is has the following main components:

1. Database Design.

2. User Interface for administrator, faculty and other users.

A database consisting of well-stocked question bank for the final question paper has been created. All the faculty members are allowed to add and edit the questions as and when required.

For convenience purposes, in the database, the tables for questions and faculty are kept separate. The question table consists of question ID along with the questions and their types. The question ID is then linked to the faculty table.

Any user must first login with his login credentials via the login page which is the first page to be displayed. After sign in with their credentials based on their permission and access levels the users will have the capacity to carry out the following:

1. Include and alter the questions to be included in the question papers.

2. Set up a final question paper.

The faculty may has the capacity to sign in only if they have been enrolled earlier by the administrator. If they haven't been enrolled then they won't have the capacity to sign in and will have to ask the administrator to create their credentials. Only the administrator has the rights to enroll the faculty, following which they will have to access to their sign in details and can make changes.

3 SDLC used in Project

For this mini project we have employed the Agile model to complete the project. By breaking the product into cycles, it quickly delivers a working product and is considered to be a realistic development approach. The model produces progressing discharges, each with little, incremental changes from the past discharge. At each iteration, we tested out the product.

This model underlines collaboration, as the clients, designers, and analyzers cooperate all through the venture, so the last yield is checked and made a decision at each stage. We adhere to the yield we need and ensure we are accomplishing it or drawing near to it at every cycle or stage. Every iteration involves cross-functional teams working simultaneously on various areas:

1. Planning
2. Requirements Analysis
3. Design
4. Coding
5. Unit Testing & Acceptance Testing

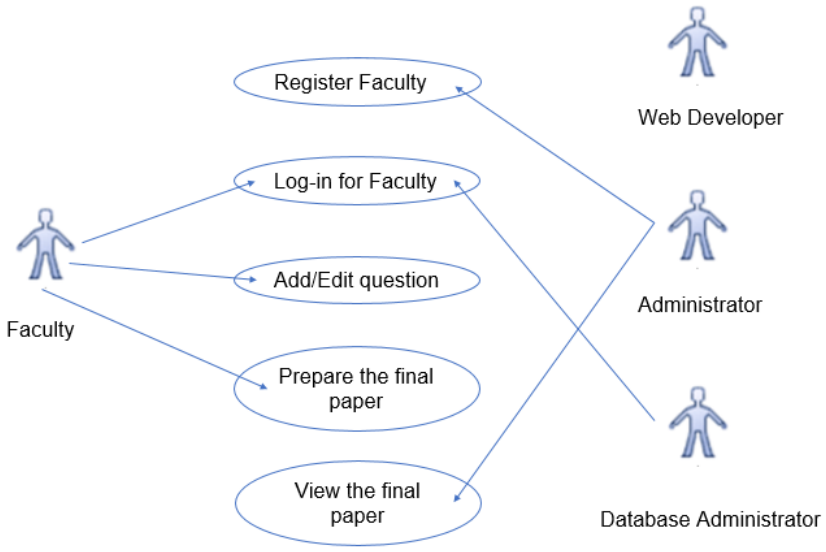

Figure 1: Agile Model of Product Development

4 Codes Snippets Written

4.1 Login Code

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;
using System.Data.SqlClient;
using System.Configuration;

public partial class login : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {
    }
    protected void login_check(object sender, EventArgs e)
    {
        try
        {
            SqlConnection con = new
            SqlConnection(ConfigurationManager.
            ConnectionStrings["mycon"].ToString());
            string uid = user.Text;
            string p = pass.Text;
            con.Open();
            string qry = "select * from [login] where username='"
```

```
+ uid + "' and password='" + p + "'";
SqlCommand cmd = new SqlCommand(qry, con);
SqlDataReader sdr = cmd.ExecuteReader();
if (sdr.Read())
{
    System.Diagnostics.Debug.WriteLine("accesss : "
    + sdr.GetString(3) + "--->");
    if (string.Equals(sdr.GetString(3).Trim(), "0"))
    {
        Response.Redirect("CreateLogin.aspx");
    }
    else if (string.Equals(sdr.GetString(3).Trim(), "2"))
    {
        Session["branch"] = sdr.GetString(4);
        Session["subject"] = sdr.GetString(5);
        Session["f_id"] = sdr.GetInt32(0);
        Session["semester"] = sdr.GetString(7);
        Response.Redirect("selectQues.aspx");
    }
    else
    {
        Session["branch"] = sdr.GetString(4);
        Session["subject"] = sdr.GetString(5);
        Session["f_id"] = sdr.GetInt32(0);
        Session["semester"] = sdr.GetString(7);
        Response.Redirect("addQuestion.aspx");
    }
}
else
```

```
            {
                res.Text = "Wrong Username or Password";

            }
            con.Close();
        }
        catch (Exception ex)
        {
            Response.Write(ex.Message);
        }
    }
}
```

4.2 Add Question Code

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;
using System.Data.SqlClient;
using System.Configuration;

public partial class _Default : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {
        if (!IsPostBack)
        {
```

```
            if (Request.QueryString["id"] == "1")
            {
                res.Text = "Inserted";
            }
            else if (Request.QueryString["access"] == "2")
            {
                Response.Redirect("selectQues.aspx",true);
            }
        }
    }
    protected void add_ques(object sender, EventArgs e)
    {
        String q_type = qt.Text;
        String marks = mrk.Text;
        String ques = q.Text;
        SqlConnection con = new SqlConnection(ConfigurationManager
        .ConnectionStrings["mycon"].ToString());
        con.Open();
        String ADDStr = "insert into questions(question,subject,f_id,
        semester,is_selected,branch,mark,type) values ('" + ques +
        "','" + Session["subject"] + "','" + Session["f_id"] + "','" +
        Session["semester"] + "','0','" + Session["branch"] + "','" +
        marks + "','" + q_type + "')"; ;
        System.Diagnostics.Debug.WriteLine("q : " + ADDStr);
        SqlDataAdapter adapter = new SqlDataAdapter();
        adapter.InsertCommand = new SqlCommand(ADDStr, con);
        adapter.InsertCommand.ExecuteNonQuery();
        Response.Redirect("addQuestion.aspx?id=1");
    }
```

```
}
```

4.3 Select Question Code

```
public partial class _Default : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {

    }
    protected void GridView1_SelectRow(object sender, EventArgs e)

    {
        GridViewRow row = (GridViewRow)((Button)sender).Parent.Parent;
        GridView1.SelectedIndex = row.RowIndex;
        System.Diagnostics.Debug.WriteLine("q : " +
        GridView1.SelectedRow.Cells[1].Text);
        SqlConnection con = new SqlConnection(ConfigurationManager.
        ConnectionStrings["mycon"].ToString());
        con.Open();
        SqlCommand command;
        SqlDataAdapter adapter = new SqlDataAdapter();
        String sql = "";
        sql = "Update questions set is_selected = '1' where question
        = '" + GridView1.SelectedRow.Cells[1].Text + "'";
        command = new SqlCommand(sql, con);
        adapter.UpdateCommand = new SqlCommand(sql, con);
        adapter.UpdateCommand.ExecuteNonQuery();
        command.Dispose();
        con.Close();
```

```
        Response.Redirect("SelectQues.aspx", true);
    }//GridView1_delRow

    protected void GridView1_delRow(object sender, EventArgs e)

    {
        GridViewRow row = (GridViewRow)((Button)sender).Parent.Parent;
        GridView2.SelectedIndex = row.RowIndex;
        System.Diagnostics.Debug.WriteLine("q : " +
        GridView2.SelectedRow.Cells[0].Text);
        SqlConnection con = new SqlConnection(ConfigurationManager.
        ConnectionStrings["mycon"].ToString());
        con.Open();
        SqlCommand command;
        SqlDataAdapter adapter = new SqlDataAdapter();
        String sql = "";
        sql = "Update questions set is_selected = '0' where question =
        + GridView2.SelectedRow.Cells[0].Text + "'";
        command = new SqlCommand(sql, con);
        adapter.UpdateCommand = new SqlCommand(sql, con);
        adapter.UpdateCommand.ExecuteNonQuery();
        command.Dispose();
        con.Close();
        Response.Redirect("SelectQues.aspx", true);
    }
}
```

4.4 Logout Code

```
using System;
```

```
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;
public partial class logout : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {
        Session.Abandon();
        Session.Clear();
        Response.Redirect("login.aspx",true);
    }
}
```

5 Snapshots of UI

5.1 Pictures of User Interface

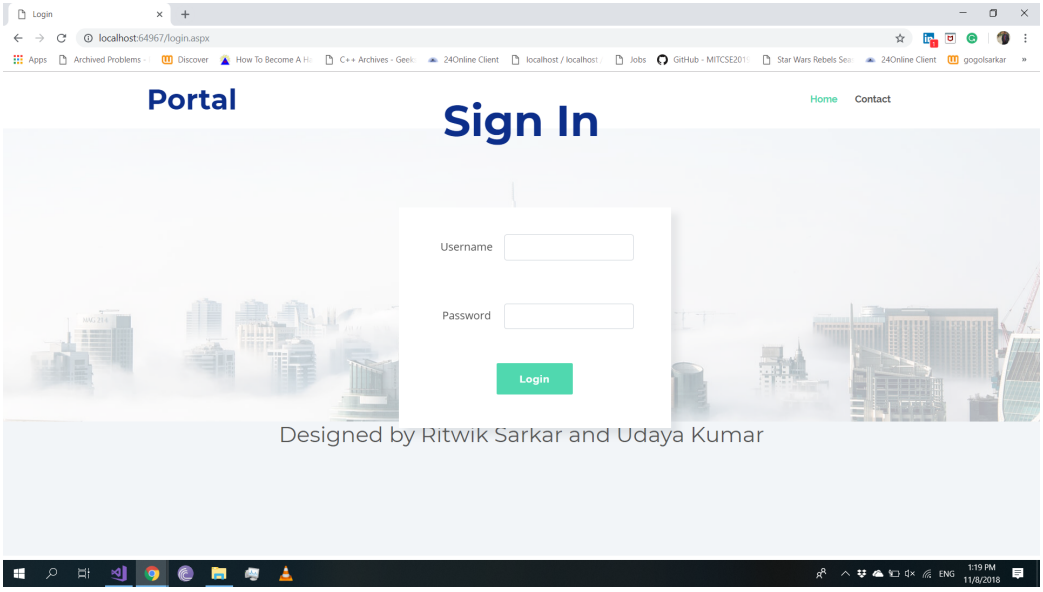

Figure 2: Login Page

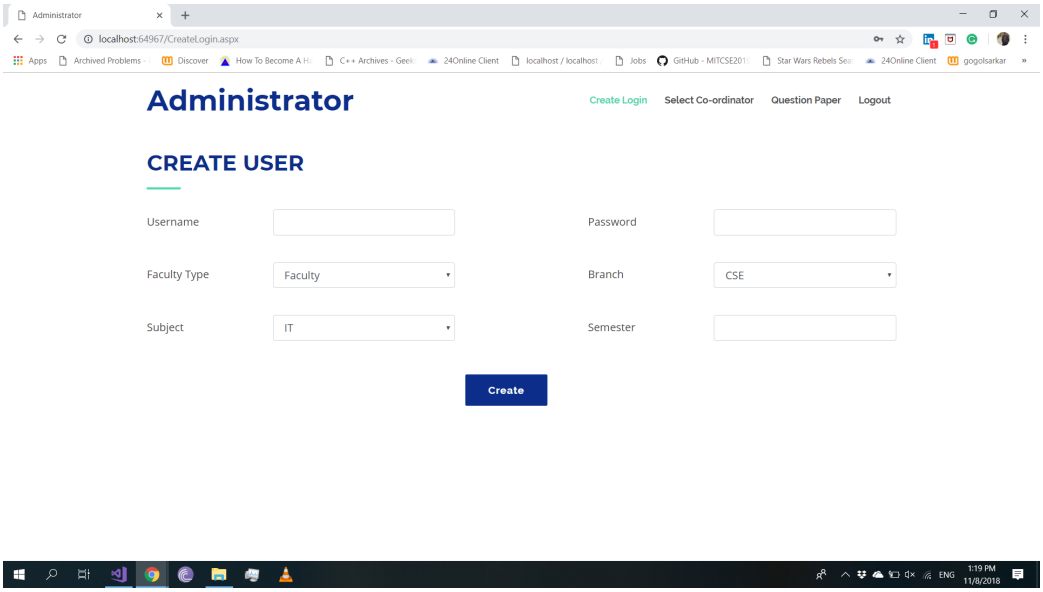

Figure 3: Create User

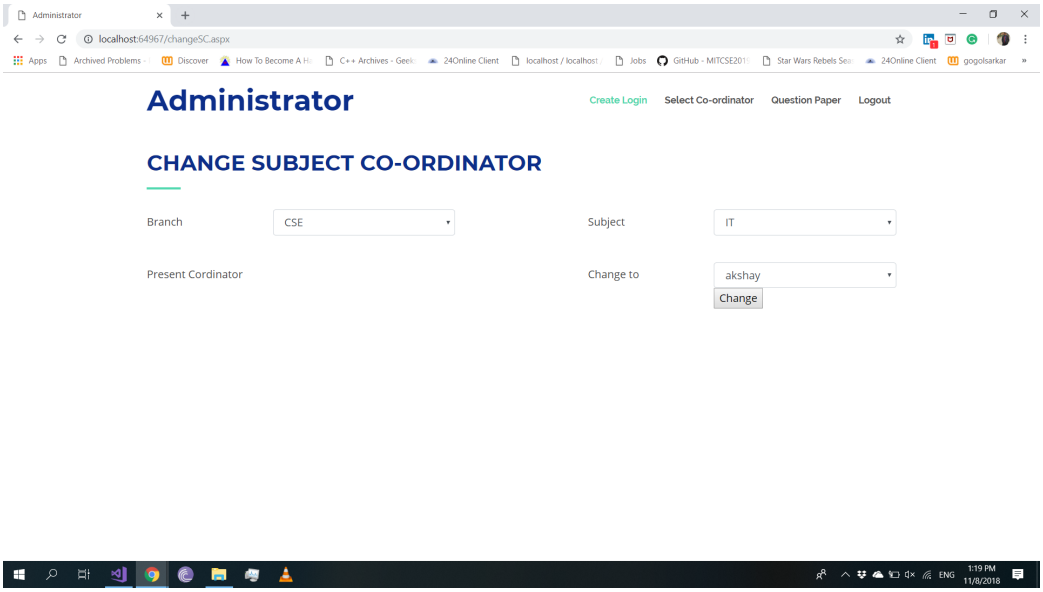

Figure 4: Change Subject Coordinator

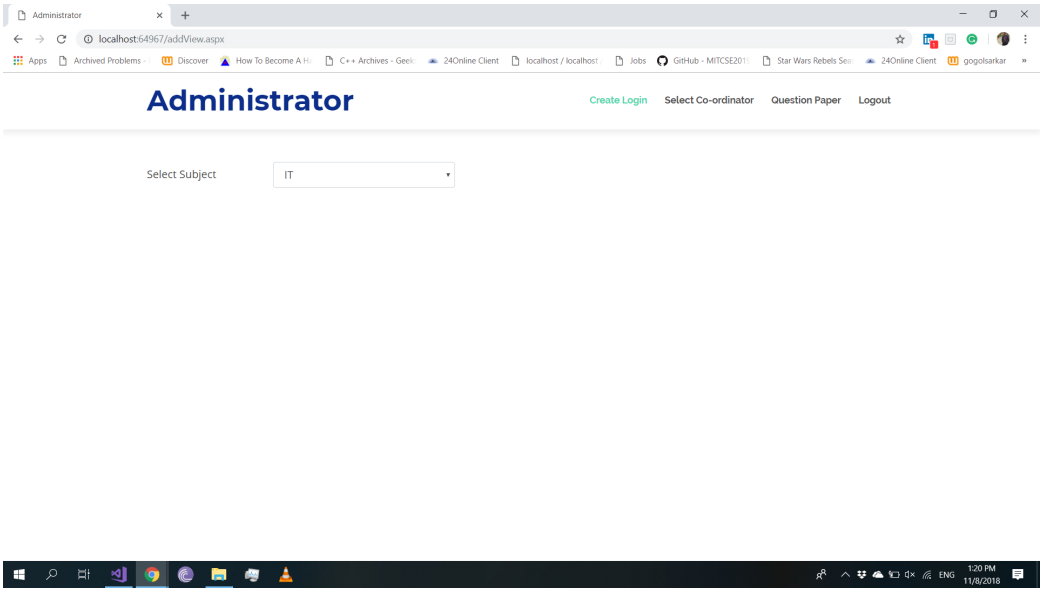

Figure 5: Select Subject

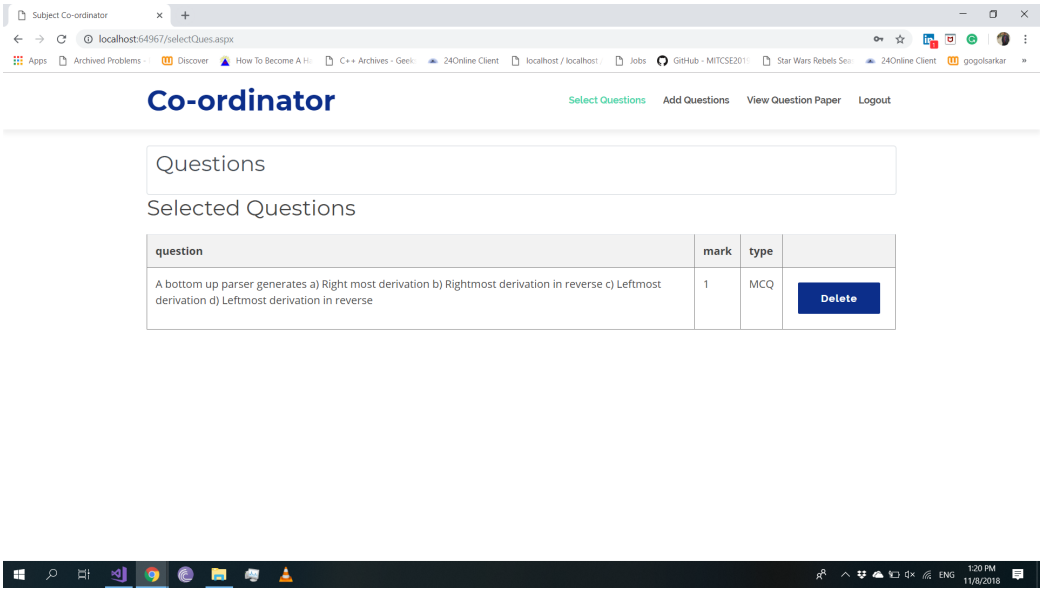

Figure 6: Select Questions

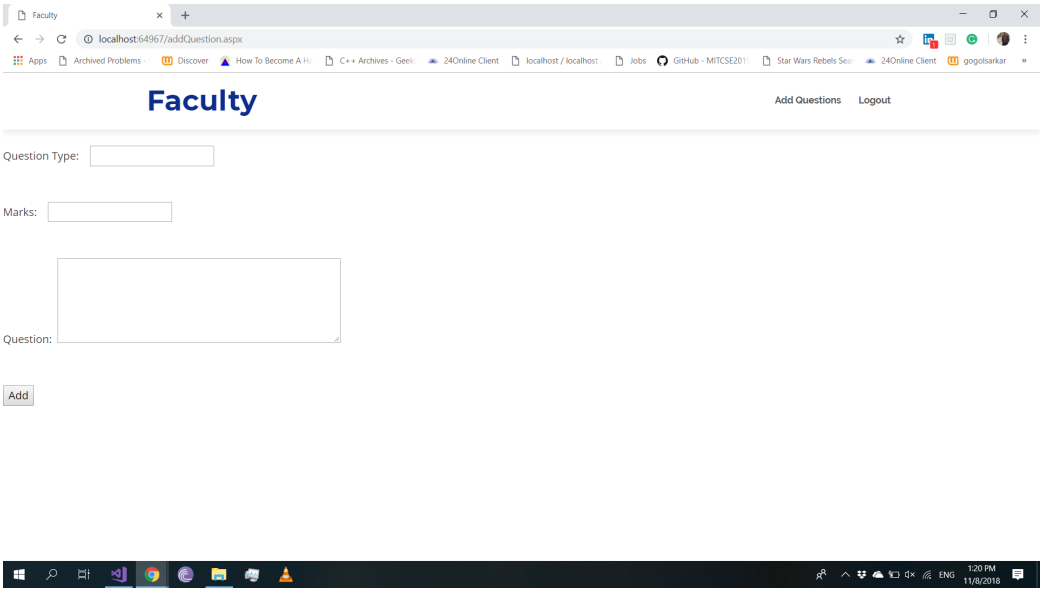

Figure 7: Add Questions

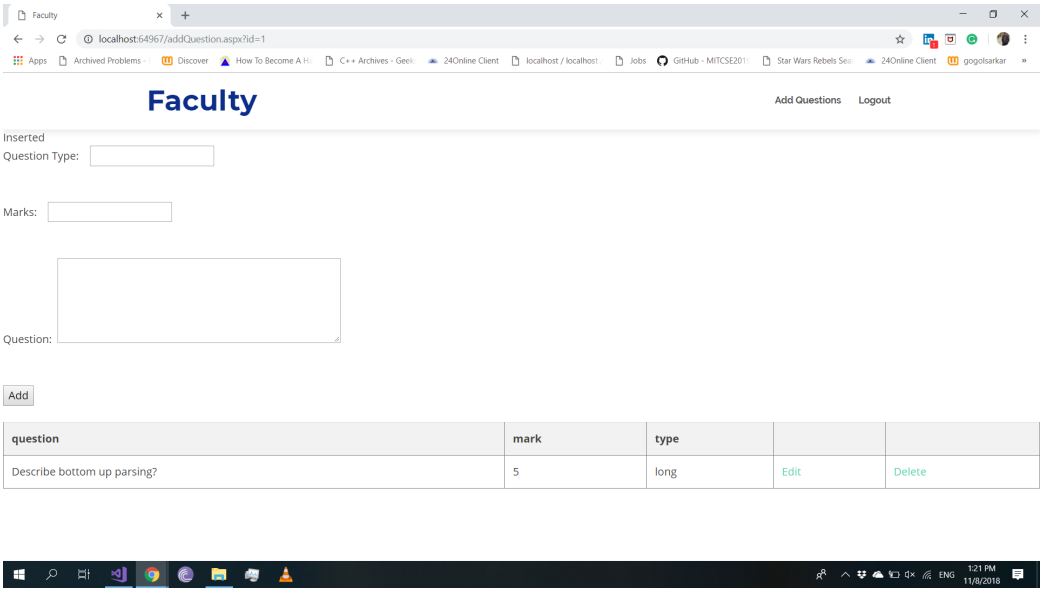

Figure 8: Viewing Question with Grid View

6 Conclusion

This project demonstrates all the major functionalities and controls of an asp.net web login along with an SQL database to perform CRUD operations. This project can be practically deployed for the given problem statement of question paper generation.