private SqlConnection GetSqlServerConnection()

{

string connectionString = @"Data Source=127.0.0.1; Initial Catalog=intellilog2; User ID=sa; Password=ilog123";

SqlConnection connection = new SqlConnection(connectionString);

return connection;

}

void showPermissionGrid()

{

using (SqlConnection connection = GetSqlServerConnection())

{

connection.Open();

// SELECT data from the permission table

string permissionTable = "SELECT employeeId, groupsId, SitesId , site\_groupsId, permission FROM permission";

SqlCommand command = new SqlCommand(permissionTable, connection);

SqlDataReader reader = command.ExecuteReader();

DataTable permissionData = new DataTable();

permissionData.Load(reader);

reader.Close();

// SELECT data from the employee table

command = new SqlCommand("SELECT id, FullName FROM employee", connection);

reader = command.ExecuteReader();

DataTable employeeData = new DataTable();

employeeData.Load(reader);

reader.Close();

// SELECT data from the groups table

command = new SqlCommand("SELECT id, GroupName FROM groups", connection);

reader = command.ExecuteReader();

DataTable groupData = new DataTable();

groupData.Load(reader);

reader.Close();

// SELECT data from the sites table

command = new SqlCommand("SELECT id, description FROM sites", connection);

reader = command.ExecuteReader();

DataTable siteData = new DataTable();

siteData.Load(reader);

reader.Close();

// SELECT data from the site\_groups table

command = new SqlCommand("SELECT id, description FROM site\_groups", connection);

reader = command.ExecuteReader();

DataTable site\_groupsData = new DataTable();

site\_groupsData.Load(reader);

reader.Close();

// Create the combo box columns for user Column

DataGridViewComboBoxColumn employeeColumn = new DataGridViewComboBoxColumn();

employeeColumn.DataSource = employeeData;

employeeColumn.DisplayMember = "FullName";

employeeColumn.ValueMember = "id";

employeeColumn.DataPropertyName = "employeeId";

employeeColumn.HeaderText = "User";

employeeColumn.DisplayIndex = 0;

permissionDataGrid.Columns.Add(employeeColumn);

// Create the combo box columns for group

DataGridViewComboBoxColumn groupColumn = new DataGridViewComboBoxColumn();

groupColumn.DataSource = groupData;

groupColumn.DisplayMember = "GroupName";

groupColumn.ValueMember = "id";

groupColumn.DataPropertyName = "groupsId";

groupColumn.HeaderText = "Group";

groupColumn.DisplayIndex = 1;

permissionDataGrid.Columns.Add(groupColumn);

// Create the combo box columns for site

DataGridViewComboBoxColumn siteColumn = new DataGridViewComboBoxColumn();

siteColumn.DataSource = siteData;

siteColumn.DisplayMember = "description";

siteColumn.ValueMember = "id";

siteColumn.DataPropertyName = "SitesId";

siteColumn.HeaderText = "Site";

siteColumn.DisplayIndex = 2;

permissionDataGrid.Columns.Add(siteColumn);

// Create the combo box columns for site group

DataGridViewComboBoxColumn site\_groupsColumn = new DataGridViewComboBoxColumn();

site\_groupsColumn.DataSource = site\_groupsData;

site\_groupsColumn.DisplayMember = "description";

site\_groupsColumn.ValueMember = "id";

site\_groupsColumn.DataPropertyName = "site\_groupsId";

site\_groupsColumn.HeaderText = "Site Group";

site\_groupsColumn.DisplayIndex = 3;

permissionDataGrid.Columns.Add(site\_groupsColumn);

// Create the combo box columns for permission

DataGridViewComboBoxColumn permissionColumn = new DataGridViewComboBoxColumn();

permissionColumn.DataSource = permissionData; // This is the original data source

var filteredPermissionData = permissionData.AsEnumerable().GroupBy(r => r.Field<string>("permission")).Select(r => r.First());

DataTable filteredPermissionTable = permissionData.Clone();

foreach (DataRow row in filteredPermissionData)

filteredPermissionTable.ImportRow(row);

permissionColumn.DataSource = filteredPermissionTable;

permissionColumn.DataSource = filteredPermissionTable;

permissionColumn.DisplayMember = "permission";

permissionColumn.DataPropertyName = "permission";

permissionColumn.HeaderText = "Permission";

permissionColumn.DisplayIndex = 4;

permissionDataGrid.Columns.Add(permissionColumn);

permissionDataGrid.DataSource = permissionData;

}

**Below is the SQL PART,**

CREATE TABLE employee

( id int IDENTITY(1,1) PRIMARY KEY,

firstName VARCHAR (30) NOT NULL,

lastName VARCHAR(30) NOT NULL,

FullName VARCHAR (30) NOT NULL,

ipAdress VARCHAR(30) NOT NULL,

MACAddress VARCHAR (30) NOT NULL

);

INSERT INTO employee( firstName, lastName, FullName, ipAdress, MACAddress )

VALUES ( 'Oscar', 'Rama', 'Oscar Rama', '172.20.51.101', 'b8-85-84-a4-b9-90'),

( 'Anold', 'Beth', 'Anold Beth', '172.20.51.102', 'b8-85-84-a4-b9-93'),

( 'David', 'Kate', 'David Kate', '172.20.51.103', 'b8-85-84-a4-b9-95'),

( 'Betuel', 'Smith', 'Betuel Smith', '172.20.51.104', 'b8-85-84-a4-b9-98'),

( 'Michelle', 'Gray', 'Michelle Gray', '172.20.51.106', 'b8-85-84-a4-b9-99')

GO

CREATE TABLE groups

( id int IDENTITY(1,1) PRIMARY KEY,

GroupName VARCHAR (30) NOT NULL

);

INSERT INTO groups( groupName )

VALUES ( 'Finance'),

( 'Sales'),

( 'Managers'),

( 'Regular Users'),

( 'Everyone')

GO

CREATE TABLE sites

( id int IDENTITY(1,1) PRIMARY KEY,

description VARCHAR (30) NOT NULL,

siteUrl VARCHAR (30) NOT NULL

);

INSERT INTO sites( description, siteUrl )

VALUES ( 'Google' , 'google.com'),

( 'Youtube', 'youtube.com'),

( 'geeksforgeeks', 'geeksforgeeks.org'),

( 'stackoverflow', 'stackoverflow.com')

GO

CREATE TABLE site\_groups

( id int IDENTITY(1,1) PRIMARY KEY,

description VARCHAR (30) NOT NULL,

);

INSERT INTO site\_groups( description )

VALUES ( 'Social Media'),

( 'Work Related'),

( 'Bank Sites'),

( 'Gambling Sites')

GO

CREATE TABLE permission

( id int IDENTITY(1,1) PRIMARY KEY,

employeeId int FOREIGN KEY REFERENCES employee(id) ON DELETE CASCADE,

groupsId int FOREIGN KEY REFERENCES groups(id) ON DELETE CASCADE,

SitesId int FOREIGN KEY REFERENCES sites(id) ON DELETE CASCADE,

site\_groupsId int FOREIGN KEY REFERENCES site\_groups(id) ON DELETE CASCADE,

permission VARCHAR (30) NOT NULL

);

select \* from groups\_content

INSERT INTO permission(employeeId , groupsId, SitesId , site\_groupsId, permission )

VALUES ( 4, 1, 1, 32, 'Allow'),

( 5, 2, 2, 33, 'Deny'),

( 7, 3, 3, 34, 'Allow'),

( 9, 4, 4, 35, 'Deny'),

( 19, 7, 12,48,'Allow')

GO

delete from permission