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CAMPUS ONLINE HELP DESK

- A Project Work Submitted in Fulfillment of the requirements for the **ACCP course third semester ASP.NET Core MVC**
- In
- Software Engineering
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- Muhammad Ahad
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- Tania Dcruz

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Abstract:

The project titled "Online help desk" (OHD) is using MS SQL Server, C# with onion Architecture.

This project is aimed at developing an Online Help Desk for the facilities in the campus. This is an Internet based application that can be accessed throughout the campus. This system can be used to automate the workflow of service requests for the various facilities in the campus. This is one integrated system that covers different kinds of facilities like classrooms, Labs, Hostels, Mess, Computer Center faculty club etc. Registered users (Students, Faculty-head, and Admin) will be able to log in a request for service for any of the supported facilities. These requests will be sent to the concerned people, who are also valid users of the system, to get them resolved. There are attractive features like online notice board, chat box, query resolution etc.

There are registered people in the system (students, faculty and admin). Some of them are responsible for maintaining the facilities (like, admin is responsible for keeping the records of all the queries and send it to particular faculty head, the students can make queries to any department faculty head, faculty-head, faculty head will responsible for answering all the queries sent by students or admin etc.

Introduction

Help Desk systems are mainly used in colleges with big number of students. Manual method of checking students information will no longer be there again because it will be done by the computer with the help of the computerized Campus Online Help Desk. Because of the easy to use nature of the Campus Online Help Desk, any organization can easily buy it to make use of them.

The goal of this document is to give a description of the development of practical online helpdesk for facilities in the campus.

a) Purpose:

The purpose of this document is to give a detailed description of the requirements for the "Online Help Desk". It will illustrate the purpose and describe the software requirement of Development of practical online help desk.

b) Scope:

It deals with the development of Campus Online Help Desk to help in the checking of customers information.

c) Overview:

- This is an Intrnal based application that can be accessed throughout the campus.
- This system can be used to automate the workflow of service requests for the various facilities in the campus.
- This is one integrated system that covers different kinds of facilities like class-rooms, labs, computer center, hostels faculty club etc.
- Registered users (Admin, Students and Faculty-heads) will be able to log in a request for service for any of the supported facilities.

Aims and Objectives

The aims and objectives of the project are listed below:

- To develop software called Campus Online Help Desk that will replace the manual method.
- To develop, promote, and provide adequate and efficiently Campus Online help Desk.
- To maintain an efficient system of collection, sorting and delivery of users information.
- To eliminate the error involved with the manual method of checking users information.
- To save the time wasted with manual method of checking users information.

Architectural Strategies:

The following tools have been used to develop the system:

- ❖ MS SQL: is the database where all information/data related to requests records and logs are stored.
- ❖ C#: is programming language used to develop the system to enable it to be web-based application. C# is considered the link used to connect users to databases through a user-friendly interface. Additionally SQL server application was used as a local server to host C# file to generate them.
- ❖ Server: is the place that hosts all project code.

Functional Requirements

Administrator:

- i. Login to the first page.
- ii. Create new faculty account.
- iii. View all student details.
- iv. View all faculty details.
- v. Check request sent by the user.
- vi. Forward request to the faculty as per requirement.
- vii. View all queries.
- viii. View new queries.
- ix. Reply/delete queries.
- x. Add new notice for students.
- xi. Add new notice for faculty.
- xii. Logout.

Students

Students:

- i. Register Him/Her.
- ii. Login to the first page.
- iii. Change the password after login into the system.
- iv. Edit user details.
- v. Create queries in the system.
- vi. View the status of the query.
- vii. View the list of queries created by him/her over the past.
- viii. Edit and delete query created by him/her.
- ix. Live chat with the faculty.
- x. Logout

Facility-heads

Facility-Heads:

- i. Login to the first page.
- ii. Change the password after login into the page..
- iii. Edit details of his/her profile..
- iv. View all queries.
- v. View new queries..
- vi. See the queries created by the users and assigned by the Admin.
- vii. Work on the queries assigned to them.
- viii. Reply/delete the query..
- ix. View replied queries..
- x. Add new notice for students.
- xi. View all notice..
- xii. Logout.

Environmental Characteristics

Hardware:

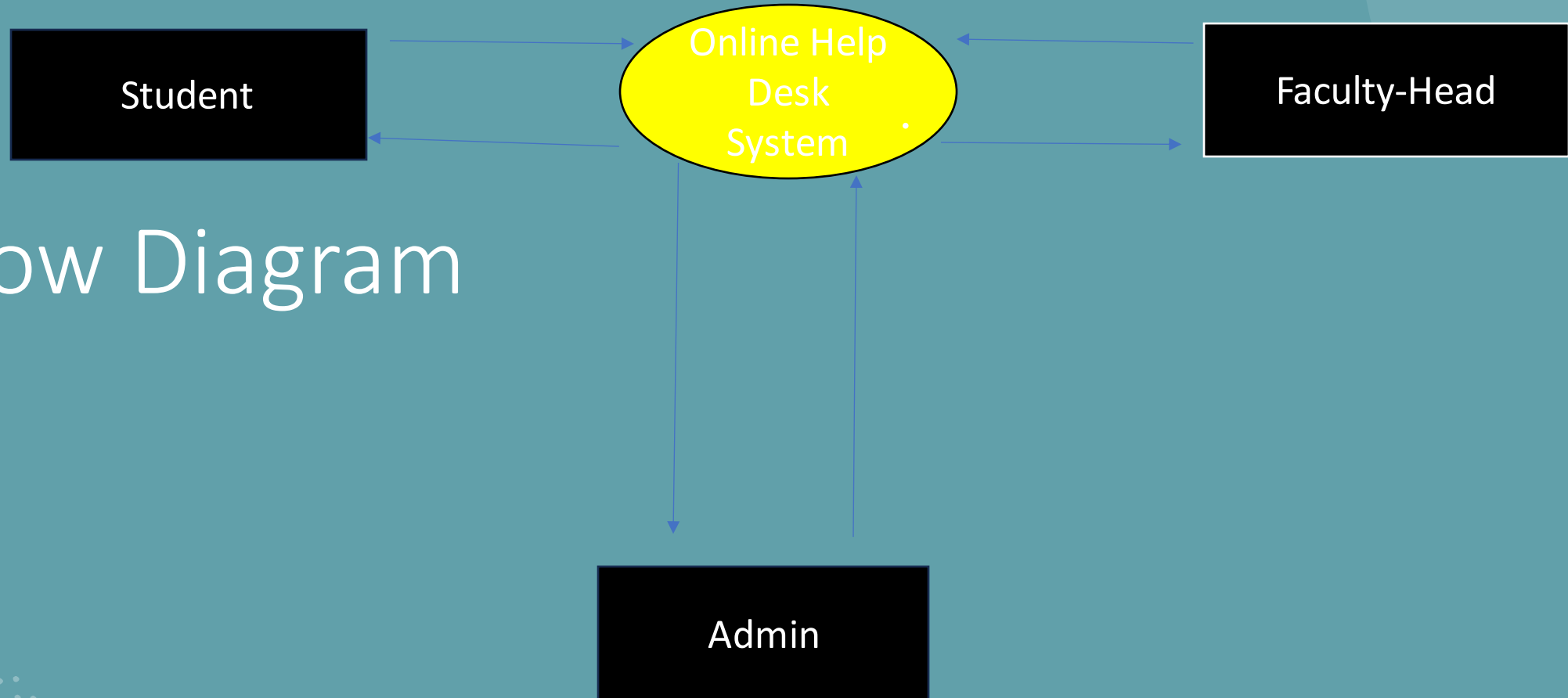
1. ProBook 6460b Laptop with 128G SSD hard-disk and 4GB RAM.
2. Network infrastructure (wired and wireless).
3. Windows personal Laptop.
4. The environment that will host the Local host MS SQL Server.

Software:

1. Windows 10Pro N version 22H2
2. System Type 64 bit operating system, x64-based processor.
3. MS-SQL Server
4. Visual Studio 2022 version 7.0
5. Network software and protocols in order for systems to communicate: HTTP, HTTPS.

Data Flow Diagram

DFD Level 0



Database Structure

Data Table Properties:



The System database is normalized and designed with the needed table that store the needed information inside columns. Also the need for developing the system capabilities and functionalities has been taken in to account.

Database table created with the following structure:

1. Each table column is assigned with suitable data type.
2. Each table column is assigned with suitable data auto increment primary Key.
3. For each table a foreign key is assigned when necessary plus its constraint type on.
Delete and on Update
4. For each table an index and its type is assigned when necessary.
5. For each column a default value is set when necessary.

SYSTEM DATABASE MAIN TABLES

- All Query Table:

#	Name	Type	Collation	Null	Default
1					
2					
3					
4					
5					
6					

FACULTY INFO TABLE:

#	Name	Type	Collation	Null	Defa
1					
2					
3					
4					
5					

STUDENT INFO TABLE:

#	Name	Type	Collation	Null	Defa
1					
2					
3					
4					
5					

DEPARTMENT TABLE:

#	Name	Type	Collation	Null	Defa
1					
2					
3					
4					
5					

Create User Request Page

Online Help Desk

Home > [Students](#) > [Tickets](#) > [Create](#)

January 2018 ▾

Create

CreateRequestView

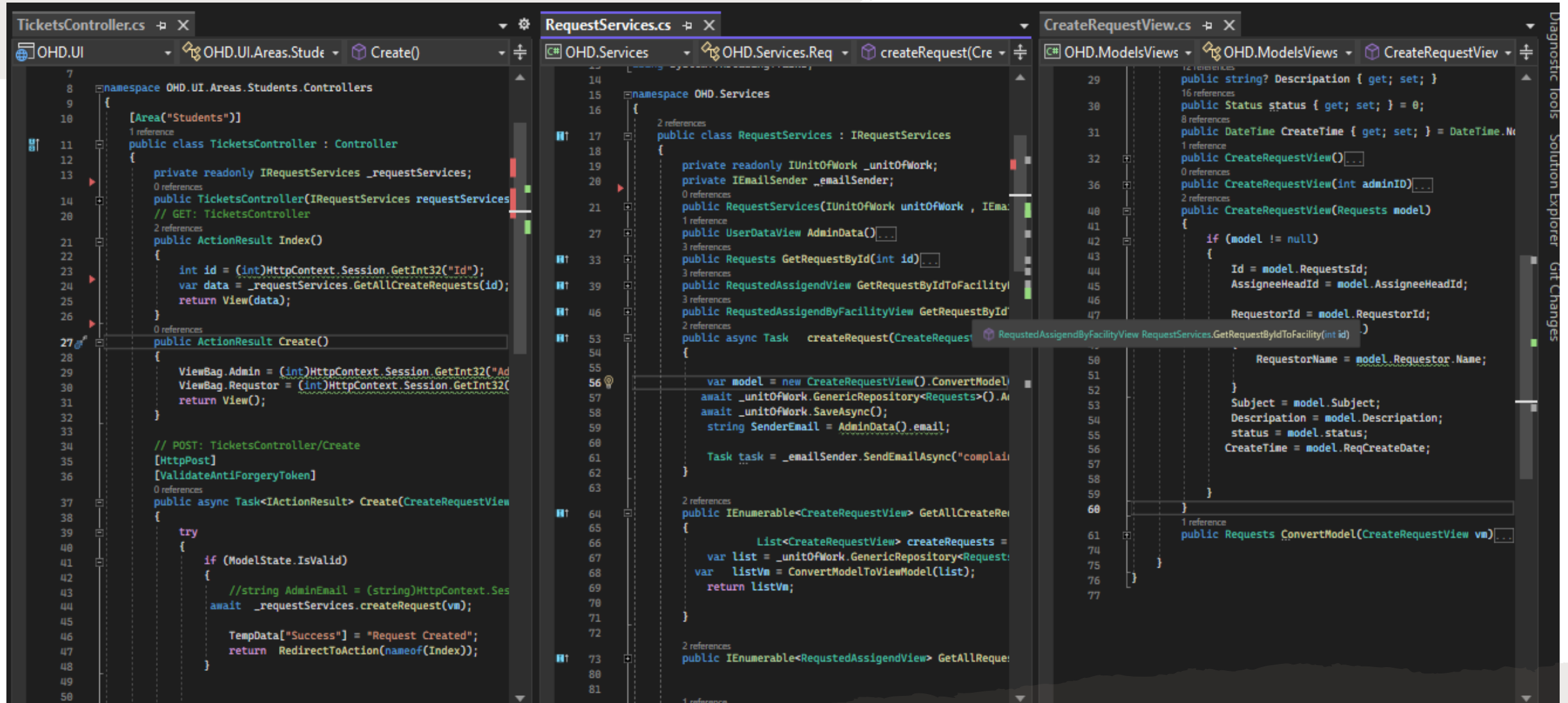
Subject

Description

Create

[Back to List](#)

Create User Request Code



```
namespace OHD.UI.Areas.Students.Controllers
{
    [Area("Students")]
    public class TicketsController : Controller
    {
        private readonly IRequestServices _requestServices;

        public TicketsController(IRequestServices requestServices)
        {
            // GET: TicketsController
        }

        public ActionResult Index()
        {
            int id = (int)HttpContext.Session.GetInt32("Id");
            var data = _requestServices.GetAllCreateRequests(id);
            return View(data);
        }

        public ActionResult Create()
        {
            ViewBag.Admin = (int)HttpContext.Session.GetInt32("AdminId");
            ViewBag.Requestor = (int)HttpContext.Session.GetInt32("RequestorId");
            return View();
        }

        // POST: TicketsController/Create
        [HttpPost]
        [ValidateAntiForgeryToken]
        public async Task<ActionResult> Create(CreateRequestView createRequestView)
        {
            try
            {
                if (ModelState.IsValid)
                {
                    //string AdminEmail = (string)HttpContext.Session.GetInt32("AdminId");
                    await _requestServices.CreateRequest(createRequestView);

                    TempData["Success"] = "Request Created";
                    return RedirectToAction(nameof(Index));
                }
            }
        }
    }
}
```

```
namespace OHD.Services
{
    public class RequestServices : IRequestServices
    {
        private readonly IUnitOfWork _unitOfWork;
        private IEmailSender _emailSender;

        public RequestServices(IUnitOfWork unitOfWork, IEmailSender emailSender)
        {
            _unitOfWork = unitOfWork;
            _emailSender = emailSender;
        }

        public async Task CreateRequest(CreateRequestView createRequestView)
        {
            var model = new CreateRequestView().ConvertModel(createRequestView);
            await _unitOfWork.GenericRepository<Requests>().Add(model);
            await _unitOfWork.SaveAsync();
            string SenderEmail = AdminData().Email;

            Task task = _emailSender.SendEmailAsync("complaints@oht.com", "Request Created", SenderEmail);
        }

        public IEnumerable<CreateRequestView> GetAllCreateRequests(int id)
        {
            List<CreateRequestView> createRequests = new List<CreateRequestView>();
            var list = _unitOfWork.GenericRepository<Requests>().GetAllByFacilityId(id);
            var listVm = ConvertModelToViewModel(list);
            return listVm;
        }

        public IEnumerable<RequestedAssignView> GetAllRequestsByFacilityId(int id)
        {
            List<RequestedAssignView> requestedAssignViews = new List<RequestedAssignView>();
            var list = _unitOfWork.GenericRepository<Requests>().GetAllByFacilityId(id);
            var listVm = ConvertModelToViewModel(list);
            return listVm;
        }
    }
}
```

```
public class CreateRequestView
{
    public string? Description { get; set; }
    public Status status { get; set; } = 0;
    public DateTime CreateTime { get; set; } = DateTime.Now;
    public CreateRequestView()
    {
    }
    public CreateRequestView(int adminID, int requestorID, string description, Status status, DateTime createTime)
    {
        Id = model.RequestsId;
        AssigneeHeadId = model.AssigneeHeadId;
        RequestorId = model.RequestorId;
        RequestorName = model.Requestor.Name;
        Subject = model.Subject;
        Description = model.Description;
        status = model.status;
        CreateTime = model.ReqCreateDate;
    }
    public Requests ConvertModel(CreateRequestView vm)
    {
        return new Requests
        {
            FacilityId = vm.FacilityId,
            AssigneeHeadId = vm.AssigneeHeadId,
            RequestorId = vm.RequestorId,
            RequestorName = vm.RequestorName,
            Subject = vm.Subject,
            Description = vm.Description,
            status = vm.status,
            CreateTime = vm.CreateTime
        };
    }
}
```

Admin assign the request to the assigner

Online Help Desk

[Home](#) > [Admin](#) > [Tickets](#) > [Edit](#) > 4001

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Edit RequestedAssigendView

Id

4001

FacilityId

IT Department ▾

☐ IsOpen

status

pedding ▾

AssignerId

Samuel ▾

Save

Admin Assign the Request to the Assigner Code

The image displays three code files in Visual Studio, illustrating the implementation of a ticket assignment system.

TicketsController.cs

```

namespace OHD.UI.Areas.Admin.Controllers
{
    [Area("Admin")]
    public class TicketsController : Controller
    {
        private readonly IRequestServices _requestServices;
        private HttpContext _httpContext;

        public TicketsController(IRequestServices requestServices)
        {
            // GET: TicketsController
        }

        [HttpGet]
        public ActionResult Index()
        {
            // GET: TicketsController/Create
        }

        // GET: TicketsController/Edit
        public IActionResult Edit(int id)
        {
            var modelvmData = _requestServices.GetRequestByIdToFac
            ViewBag.AllFacility = new SelectList(_requestServices

            return View(modelvmData);
        }

        // POST: TicketsController/Create
        [HttpPost]
        [ValidateAntiForgeryToken]
        public ActionResult Edit(RequestedAssignendView vm)
        {
            try
            {
                //if (ModelState.IsValid)
                {
                    var model = _requestServices.GetRequestById(v
                    _requestServices.UpdateAssignerRequestToAssigne
                    TempData["Success"] = "Request update";
                    return RedirectToAction(nameof(Index));
                }
            }
        }
    }
}

```

RequestServices.cs

```

public IEnumerable<CreateRequestView> GetAllCreateRequest()
{
    // Implementation
}

public IEnumerable<RequestedAssignendView> GetAllRequest()
{
    // Implementation
}

private IEnumerable<RequestedAssignendView> ConvertModelToView()
{
    // Implementation
}

private IEnumerable<CreateRequestView> ConvertModelToView()
{
    // Implementation
}

public async Task UpdateAssignerRequestToAssign(RequestedAssignendView vm)
{
    var model = new RequestedAssignendView().ConvertModelToView()
    _unitOfWork.GenericRepository<Requests>().Update(model)
    _unitOfWork.Save();
    string SenderEmail = GetUserByFacilityIdAndAssignerId(vm.FacilityId, vm.AssignerId);
    string AssignerName = GetUserByFacilityIdAndAssignerId(vm.FacilityId, vm.AssignerId);
    Task task = _emailSender.SendEmailAsync("Assigner Request Update", SenderEmail, AssignerName);
}

public async Task UpdateAssignerRequestRemarks(RequestedAssignendView vm)
{
    var model = new RequestedAssignendByFacilityView()
    _unitOfWork.GenericRepository<Requests>().Update(model)
    _unitOfWork.Save();
    string SenderEmail = GetUserByFacilityIdAndAssignerId(vm.FacilityId, vm.AssignerId);
    string Name = GetUserByFacilityIdAndAssignerId(vm.FacilityId, vm.AssignerId);
    string Remark = vm.Remarks;
    Task task = _emailSender.SendEmailAsync("Resolver Request Update", SenderEmail, Name);
}

public IEnumerable<Facility> GetAllFacility()
{
    // Implementation
}

public IEnumerable<UserDataView> GetAllAssignerByFacility()
{
    // Implementation
}

private IEnumerable<UserDataView> ConvertModelToView()
{
    // Implementation
}

```

RequestedAssignendView.cs

```

public RequestedAssignendView()
{
    // Implementation
}

public RequestedAssignendView ConvertModel(RequestedAssignendView vm)
{
    return new Requests
    {
        //admin can work only this filed
        RequestsId = vm.Id,
        AssignerId = vm.AssignerId,
        FacilityId = vm.FacilityId,
        status = vm.status,
        IsOpen = vm.IsOpen,
        //already Create RequestorDefine
    }
}

```

Assigner Remarks pages after done job

Online Help Desk

Home > ITDep > Tickets > Edit > 4001

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Edit

RequestedAssignendView

Id

4001

Remarks

i Dont no what happen

status

pedding ▾

Save

[Back to List](#)

Assigners given Remarks after done job page Controller and Service and ViewModel code

The image displays three overlapping code windows in Visual Studio. The leftmost window, 'TicketsController.cs', shows a C# controller class with methods 'Index()' and 'Edit()'. The middle window, 'RequestServices.cs', shows interfaces and implementations for request services. The rightmost window, 'RequestedAssign...acilityView.cs', shows a view model class. The status bar at the bottom indicates 70% zoom and line numbers for each file.

Change password page

The image shows a web application interface with a sidebar and a main content area. The sidebar on the left contains the following elements:

- Top navigation: A hamburger menu icon and a search icon.
- User profile: A circular profile picture of a man, a settings gear icon, a notification bell icon, and a dropdown arrow.
- Dropdown menu (highlighted):
 - Profile
 - Setting (highlighted with a blue border)
 - Help
 - Log Out
- Online Help Desk: A section with a breadcrumb trail: Home > Home > Auth > Profile.
- Profile: A section with a breadcrumb trail: Home > Profile.
- User card: A large white card featuring a profile picture of a man, a pencil icon for editing, and the name "Ahmer Ali".

The main content area on the right is titled "DeskApp" and includes a "Help?" link. It displays the "Change Password" page, which contains the following elements:

- Section header: "Change Password" in blue.
- Form title: "Change Your Password".
- Input fields:
 - Old Password (with an eye icon for toggling visibility)
 - New Password (with an eye icon for toggling visibility)
 - Retype Password (with an eye icon for toggling visibility)
- Buttons: A blue "Submit" button, the text "OR", and a white "Login" button with a blue border.

Change password page Controller and Service and ViewModel code

```
AuthController.cs
OHD.UI
OHD.UI.Areas.Hc
ViewImport()
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if (c == true)
{
    TempData["success"] = "Password Update successfully";
    return RedirectToAction("Profile", "auth", new { area = "Home" });
}
else { TempData["error"] = "old password is not match"; }

return View(vm);

private void ViewImport()
{
    _RoleId = (int)HttpContext.Session.GetInt32("Role");
    if (_RoleId == 2000)
    {
        //admin MyLayout
        MyLayout = "~/Areas/Admin/Views/Shared/_Layout.cshtml";
    }
    else if (_RoleId == 2001)
    {
        //ITDop MyLayout
        MyLayout = "~/Areas/ITDop/Views/Shared/_Layout.cshtml";
    }
    else if (_RoleId == 2002 || _RoleId == 2004)
    {
        //IT Department View
        MyLayout = "~/Areas/Students/Views/Shared/_Layout.cshtml";
    }
    else
    {
        MyLayout = "~/Areas/Home/Views/Shared/_Layout.cshtml";
    }
}

AuthorizationServices.cs
OHD.Services
OHD.Services.Au
UpdatePasswor
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public string GetAdminEmail()
{
    var data = _unitOfWork.GenericRepository<Register>().Get(x => x.RoleId == 2000);
    return data.Email;
}

public int GetAdminID()
{
    var data = _unitOfWork.GenericRepository<Register>().Get(x => x.RoleId == 2000);
    return data.RegisterId;
}

public ProfileUpdateView GetProfileUser(int id)
{
    var model = _unitOfWork.GenericRepository<Register>().Get(x => x.RegisterId == id);
    var modelVm = new ProfileUpdateView(model);
    return modelVm;
}

public bool UpdatePassword(ModifyPasswordView view)
{
    try
    {
        var model = _unitOfWork.GenericRepository<Register>().Get(x => x.RegisterId == view.RegisterId);
        if (model.Password == view.OldPassword)
        {
            var modelVm = new ModifyPasswordView().ConvertModel(view, model);
            _unitOfWork.GenericRepository<Register>().Update(modelVm);
            _unitOfWork.Save();
            return true;
        }
        catch (NullReferenceException N)
        {
            Console.WriteLine(N);
        }
        return false;
    }
    catch (NullReferenceException N)
    {
        Console.WriteLine(N);
    }
}

public bool ForgetPassword(ChangePasswordView view)
{
    try
    {
        var model = _unitOfWork.GenericRepository<Register>().Get(x => x.RegisterId == view.RegisterId);
        var modelVm = new ChangePasswordView().ConvertModel(view, model);
        _unitOfWork.GenericRepository<Register>().Update(modelVm);
        _unitOfWork.Save();
        return true;
    }
    catch (NullReferenceException N)
    {
        Console.WriteLine(N);
    }
}

ChangePasswordView.cs
OHD.ModelsViews
OHD.ModelsViews.Cha
confirmPassword
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public class ChangePasswordView
{
    public ChangePasswordView()
    {
    }

    public int id { get; set; }
    public string? username { get; set; }
    [DataType(DataType.Password)]
    public string? newPassword { get; set; }
    [Compare("newPassword")]
    public string? confirmPassword { get; set; }
    public string? email { get; set; }
    public int pin { get; set; }

    public ChangePasswordView(Register model)
    {
        if (model != null)
        {
            id = model.RegisterId;
            email = model.Email;
            username = model.Username;
        }
    }

    public Register ConvertModel(ChangePasswordView modelVm, Register model)
    {
        return new Register()
        {
            //only change Password
            Password = modelVm.newPassword,
            RegisterId = modelVm.id,
            Name = model.Name,
            Email = model.Email,
            Address = model.Address,
            Username = model.Username,
            FacilityId = model.FacilityId,
            RoleId = model.RoleId,
            Status = model.Status,
            Gender = model.Gender,
            RDO = model.RDO
        };
    }
}
```


All Facility pages

Online Help Desk

Home > [Admin](#) > [Facility](#)

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Facilities Table

➕ Create

Here all available [Facility](#)

Id	Facility	Description	Action
1000	Administrare	this is admin department	Edit Details Delete
1001	IT Department	this is IT	Edit Details Delete
1002	ClassRoom	this is class	Edit Details Delete

Facility page Controller, Service and ViewModel code

```
FacilityController.cs
using Microsoft.AspNetCore.Mvc;
using OHD.ModelsViews;
using OHD.Services;

namespace OHD.UI.Areas.Admin.Controllers
{
    [Area("Admin")]
    public class FacilityController : Controller
    {
        private IFacilityServices _facilityServices;

        public FacilityController(IFacilityServices facilityServices)
        {
            _facilityServices = facilityServices;
        }

        public IActionResult Index()
        {
            var dataList = _facilityServices.GetAllFacility();
            return View(dataList);
        }

        [HttpGet]
        public IActionResult CreateUpdate(int id)
        {
            FacilityView model = new FacilityView();
            if (id == null || id == 0)
            {
                return View(model);
            }
            else
            {
                var data = _facilityServices.GetFacilityById(id);
                if (data == null)
                {
                    return NotFound();
                }
                else { return View(data); }
            }
        }

        [HttpPost]
        [ValidateAntiForgeryToken]
        public IActionResult CreateUpdate(FacilityView modelVm)
        {
            if (ModelState.IsValid)
            {
                if (modelVm.Id == 0)
                {
                    _facilityServices.InsertFacility(modelVm);
                    TempData["Success"] = "Successfully create Done";
                }
                else
                {
                    _facilityServices.UpdateFacility(modelVm);
                }
            }
        }
    }
}

FacilityServices.cs
using OHD.Services;
using OHD.Services.Facility;
using OHD.Services.Facility;

namespace OHD.Services
{
    public class FacilityServices : IFacilityServices
    {
        private IUnitOfWork _unitOfWork;

        public FacilityServices(IUnitOfWork unitOfWork)
        {
            _unitOfWork = unitOfWork;
        }

        public void DeleteFacility(int id)
        {
            try
            {
                var FacilityVm = _unitOfWork.GenericRepository<Facility>().Get(x => x.FacilityId == id);
                _unitOfWork.GenericRepository<Facility>().DeleteAsync(FacilityVm);
                _unitOfWork.Save();
            }
            catch (NullReferenceException N)
            {
                Console.WriteLine(N);
            }
            catch (Exception ex)
            {
                Console.WriteLine(ex);
            }
        }

        public IEnumerable<FacilityView> GetAllFacility()
        {
            List<FacilityView> vmList = new List<FacilityView>();
            var FacilityModel = _unitOfWork.GenericRepository<Facility>().GetAll();
            vmList = ConvertModelToViewModel(FacilityModel);
            return vmList;
        }

        public FacilityView GetFacilityById(int id)
        {
            var FacilityVm = _unitOfWork.GenericRepository<Facility>().Get(x => x.FacilityId == id);
            var vm = new FacilityView(FacilityVm);
            return vm;
        }

        public void InsertFacility(FacilityView vm)
        {
            try
            {
                var model = new FacilityView().ConvertModel(vm);
                _unitOfWork.GenericRepository<Facility>().Add(model);
                _unitOfWork.Save();
            }
            catch (NullReferenceException N)
            {
                Console.WriteLine(N);
            }
        }
    }
}

IFacilityServices.cs
using OHD.Services;
using OHD.Services.Facility;

namespace OHD.Services
{
    public interface IFacilityServices
    {
        void DeleteFacility(int id);
        IEnumerable<FacilityView> GetAllFacility();
        FacilityView GetFacilityById(int id);
        void InsertFacility(FacilityView vm);
    }
}

FacilityView.cs
using OHD.Models;
using OHD.ModelsViews;
using System.Collections.Generic;
using System.ComponentModel.DataAnnotations;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace OHD.ModelsViews
{
    public class FacilityView
    {
        public FacilityView() { }

        public int Id { get; set; }

        [Required]
        public string Facility { get; set; }

        public string Description { get; set; }

        public FacilityView(Facility model)
        {
            Id = model.FacilityId;
            Facility = model.FacilityName;
            Description = model.FacilityDescription;
        }

        public Facility ConvertModel(FacilityView modelVm)
        {
            return new Facility()
            {
                FacilityId = modelVm.Id,
                FacilityName = modelVm.Facility,
                FacilityDescription = modelVm.Description
            };
        }
    }
}
```

Role Page

Online Help Desk

Home > Admin > Roles

January 2018 ▾

Roles Table

Here all available Roles

Create

Role	Description	Action
admin	this is admin	<a>Edit <a>Details <a>Delete
IT Officer	this is IT	<a>Edit <a>Details <a>Delete
Students	this is students	<a>Edit <a>Details <a>Delete
teacher	this is teacher	<a>Edit <a>Details <a>Delete

Roles page Controller and Service and ViewModel code

```
RolesController.cs
namespace UI.Areas.Admin.Controllers
{
    [Area("Admin")]
    public class RolesController : Controller
    {
        private readonly IRolesServices RolesServices;

        // GET: Admin/Roles
        public IActionResult Index()
        {
            var roles = RolesServices.GetAllRoles();
            return View(roles);
        }

        // GET: Admin/Roles/Details/5
        public IActionResult Details(int id)
        {
            // GET: Admin/Roles/Create
            public IActionResult Create()
            {
                // POST: Admin/Roles/Create
                [HttpPost]
                [ValidateAntiForgeryToken]
                public IActionResult Create(RolesView vm)
                {
                    if (ModelState.IsValid)
                    {
                        RolesServices.InsertRoles(vm);
                        TempData["Success"] = "Create Successfully";
                        return RedirectToAction(nameof(Index));
                    }
                    return View(vm);
                }

                // GET: Admin/Roles/Edit/5
                public async Task Edit(int id)
                {
                    // POST: Admin/Roles/Edit/5
                    [HttpPost]
                    [ValidateAntiForgeryToken]
                    public IActionResult Edit(RolesView vm)
                    {
                        if (ModelState.IsValid)
                        {
                            try
                            {
                                RolesServices.UpdateRoles(vm);
                                TempData["Success"] = "Update Successfully";
                            }
                            catch (DbUpdateConcurrencyException)
                            {
                                //
                            }
                            return RedirectToAction(nameof(Index));
                        }
                    }
                }
            }
        }
    }
}
```

```
RolesServices.cs
using OHD.Infrastructure;
using OHD.Models;
using OHD.ModelsViews;
using System;
using System.Collections.Generic;
using System.Linq;
using System.Threading.Tasks;

namespace OHD.Services
{
    public class RolesServices : IRolesServices
    {
        private IUnitOfWork _unitOfWork;

        public RolesServices(IUnitOfWork unitOfWork)
        {
            _unitOfWork = unitOfWork;
        }

        public void DeleteRoles(int id)
        {
            //
        }

        public IEnumerable<RolesView> GetAllRoles()
        {
            //
        }

        public RolesView GetRoleById(int id)
        {
            //
        }

        public void InsertRoles(RolesView vm)
        {
            try
            {
                var model = new RolesView() { ConvertModel(vm); }
                _unitOfWork.GenericRepository<Roles>().Add(model);
                _unitOfWork.Save();
            }
            catch (NullReferenceException n)
            {
                Console.WriteLine(n);
            }
            catch (Exception ex)
            {
                Console.WriteLine(ex);
            }
        }

        public void UpdateRoles(RolesView vm)
        {
            //
        }

        private List<RolesView> ConvertModelToViewModel(IEnumerable<Roles> RolesModel)
        {
            //
        }
    }
}
```

```
RolesView.cs
using OHD.Models;
using System;
using System.Collections.Generic;
using System.Linq;
using System.Threading.Tasks;

namespace OHD.ModelsViews
{
    public class RolesView
    {
        public RolesView()
        {
            //
        }

        public int Id { get; set; }
        public string? Role { get; set; }
        public string? Description { get; set; }
        public RolesView(Roles model)
        {
            Id = model.RoleId;
            Role = model.RoleName;
            Description = model.RoleDescription;
        }

        public Roles ConvertModel(RolesView modelVm)
        {
            return new Roles()
            {
                RoleId = modelVm.Id,
                RoleName = modelVm.Role,
                RoleDescription = modelVm.Description;
            };
        }
    }
}
```

Register page

Online Help Desk

January 2018 ▾

Home > Admin > Registers

Registration Table

+ Create

Here all available Register

ID	Username	Email	Address	Gender	Status	Role	Facility	Action
3000	admin	ahmerali1813@gmail.com	Street 12, Azam Basti, Jamshed Town, Near Mehmodabad Karachi	Male	Online	admin	Administrative	<div>Edit</div> <div>Details</div> <div>Delete</div>
3001	Samuel123	ahmerali1813@gmail.com	karachi	Female	Offline	IT Officer	IT Department	<div>Edit</div> <div>Details</div> <div>Delete</div>

Register page Controller and Service and ViewModel code

```
RegistersController.cs
using Microsoft.AspNetCore.Mvc;
using Microsoft.AspNetCore.Mvc.Rendering;
using Microsoft.EntityFrameworkCore.Internal;
using OHD.Models;
using OHD.Services;

namespace OHD.UI.Areas.Admin.Controllers
{
    [Area("Admin")]
    public class RegistersController : Controller
    {
        IRegisterServices _registerServices;

        public RegistersController(IRegisterServices registerServices)
        {
            _registerServices = registerServices;
        }

        public IActionResult Index()
        {
            IEnumerable<RegisterView> vm = _registerServices.GetAllRegisters().ToList();
            return View(vm);
        }

        [HttpGet]
        public IActionResult Create()
        {
            ViewBag.AllRoles = new SelectList(_registerServices.GetAllRoles(), "RoleId", "RoleName");
            ViewBag.AllFacility = new SelectList(_registerServices.GetAllFacility(), "FacilityId", "FacilityName");
            return View();
        }

        [HttpPost]
        public IActionResult Create(RegisterView model)
        {
            _registerServices.InsertRegister(model);
            TempData["Success"] = "Create Successfully";
            return RedirectToAction("Index");
        }

        [HttpGet]
        public IActionResult Edit(int id)
        {
            if (id == null || id == 0)
            {
                return RedirectToAction("badRequest", "Home", new { area = "Home" });
            }
            else
            {
                ViewBag.AllRoles = new SelectList(_registerServices.GetAllRoles(), "RoleId", "RoleName");
                ViewBag.AllFacility = new SelectList(_registerServices.GetAllFacility(), "FacilityId", "FacilityName");
                var vm = _registerServices.GetRegisterByExpression(id);
                if (vm == null || vm.Id == 0)
                {
                    return RedirectToAction("badRequest", "Home", new { area = "Home" });
                }
                else
                {
                    return View(vm);
                }
            }
        }
    }
}

RegisterServices.cs
public class RegisterServices : IRegisterServices
{
    private IUnitOfWork _unitOfWork;
    private ILogger<RegisterServices> _logger;

    public RegisterServices(IUnitOfWork unitOfWork, ILogger<RegisterServices> logger)
    {
        _unitOfWork = unitOfWork;
        _logger = logger;
    }

    public void DeleteRegister(int id)
    {
        try
        {
            var register = _unitOfWork.GenericRepository<Register>().Get(x => x.RegId == id);
            _unitOfWork.GenericRepository<Register>().Delete(register);
            _unitOfWork.Save();
        }
        catch (NullReferenceException n)
        {
            Console.WriteLine(n);
        }
        catch (Exception ex)
        {
            Console.WriteLine(ex);
        }
    }

    public IEnumerable<Facility> GetAllFacility()
    {
        return _unitOfWork.GenericRepository<Facility>().GetAll().ToList();
    }

    public IEnumerable<RegisterView> GetAllRegisters()
    {
        return _unitOfWork.GenericRepository<Register>().GetAll().ToList();
    }

    public IEnumerable<Role> GetAllRoles()
    {
        var list = _unitOfWork.GenericRepository<Role>().GetAll().ToList();
        return list;
    }

    public RegisterView GetRegisterByExpression(int id)
    {
        var register = _unitOfWork.GenericRepository<Register>().Get(x => x.RegId == id);
        var vm = new RegisterView(register);
        return vm;
    }

    public void InsertRegister(RegisterView registerView)
    {
        try
        {
            var model = new RegisterView().ConvertModel(registerView);
            _unitOfWork.GenericRepository<Register>().Add(model);
            _unitOfWork.Save();
        }
        catch (NullReferenceException n)
        {
            Console.WriteLine(n);
        }
    }
}

IRequestServices.cs
public class RequestServices : IRequestServices
{
    private IUnitOfWork _unitOfWork;
    private ILogger<RequestServices> _logger;

    public RequestServices(IUnitOfWork unitOfWork, ILogger<RequestServices> logger)
    {
        _unitOfWork = unitOfWork;
        _logger = logger;
    }

    public void DeleteRequest(int id)
    {
        try
        {
            var request = _unitOfWork.GenericRepository<Request>().Get(x => x.RequestId == id);
            _unitOfWork.GenericRepository<Request>().Delete(request);
            _unitOfWork.Save();
        }
        catch (NullReferenceException n)
        {
            Console.WriteLine(n);
        }
        catch (Exception ex)
        {
            Console.WriteLine(ex);
        }
    }

    public IEnumerable<Facility> GetAllFacility()
    {
        return _unitOfWork.GenericRepository<Facility>().GetAll().ToList();
    }

    public IEnumerable<RequestView> GetAllRequests()
    {
        return _unitOfWork.GenericRepository<Request>().GetAll().ToList();
    }

    public IEnumerable<Role> GetAllRoles()
    {
        var list = _unitOfWork.GenericRepository<Role>().GetAll().ToList();
        return list;
    }

    public RequestView GetRequestByExpression(int id)
    {
        var request = _unitOfWork.GenericRepository<Request>().Get(x => x.RequestId == id);
        var vm = new RequestView(request);
        return vm;
    }

    public void InsertRequest(RequestView requestView)
    {
        try
        {
            var model = new RequestView().ConvertModel(requestView);
            _unitOfWork.GenericRepository<Request>().Add(model);
            _unitOfWork.Save();
        }
        catch (NullReferenceException n)
        {
            Console.WriteLine(n);
        }
    }
}

RegisterView.cs
using System;
using System.Collections.Generic;
using System.ComponentModel.DataAnnotations;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using static OHD.Models.Register;

namespace OHD.ModelsViews
{
    public class RegisterView
    {
        public RegisterView()
        {
        }

        public int Id { get; set; }
        public string Name { get; set; }
        public string Username { get; set; }
        public string Email { get; set; }
        public string Address { get; set; }
        public string Password { get; set; }
        public Gender Gender { get; set; }
        public Status Status { get; set; }
        public DateTime MOD { get; set; }
        public Roles roles { get; set; }
        [Required]
        public int RoleId { get; set; }
        [Required]
        public Facility Facilities { get; set; }
        [Required]
        public int FacilityId { get; set; }

        public RegisterView(Register model)
        {
            if (model != null)
            {
                Id = model.RegId;
                Name = model.Name;
                Username = model.Username;
                Email = model.Email;
                Address = model.Address;
                Password = model.Password;
                Gender = model.Gender;
            }
        }
    }
}
```

Profile Page View

Search Here

Welcome Ahmer Ali

Profile

Home > Profile

Ahmer Ali

Lorem ipsum dolor sit amet

Contact Information

Email Address:
ahmerali1813@gmail.com

Phone Number:
619-229-0054

Address:
Street 12, Azam Basti, Jamshed Town, Near Mehmodabad Karachi

Timeline

Tasks

Settings

Edit Your Personal Setting

Name

Ahmer Ali

Email

ahmerali1813@gmail.com

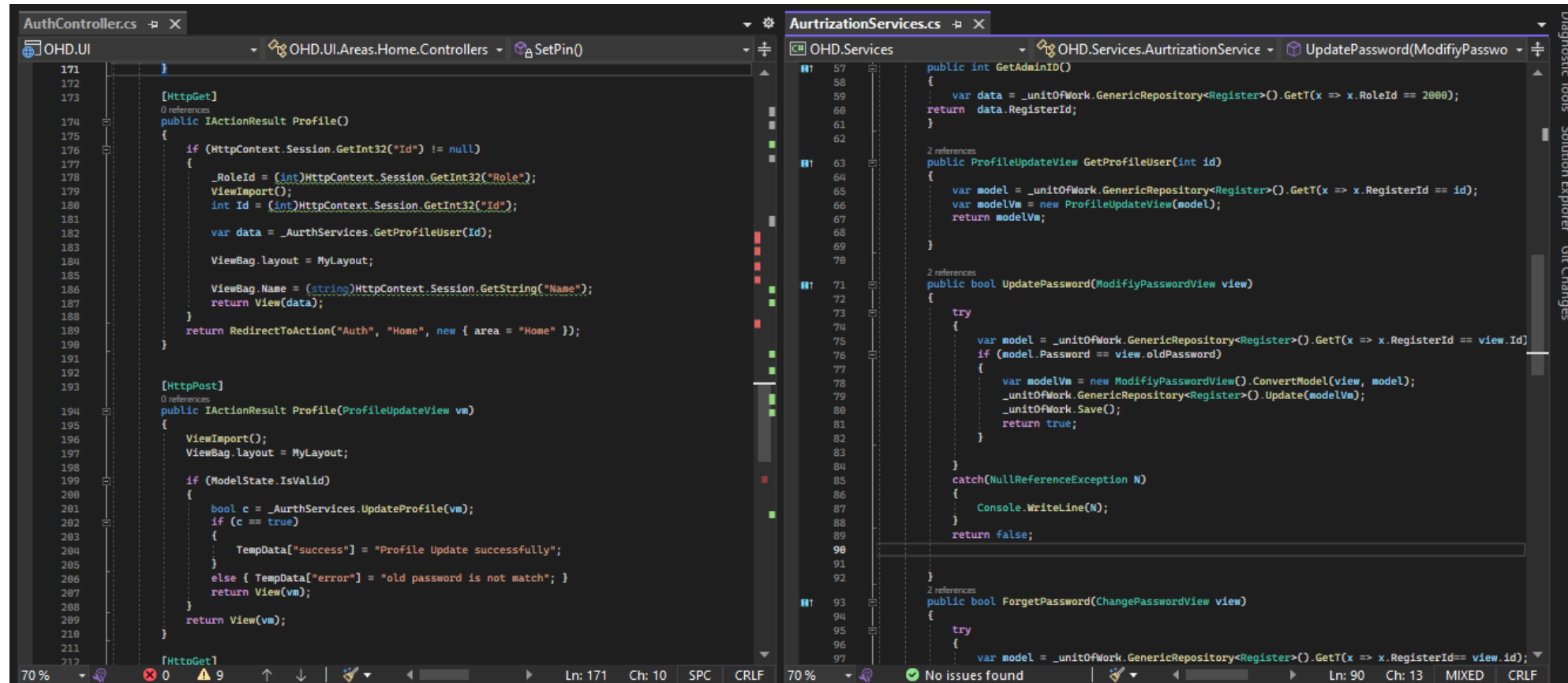
Address

Street 12, Azam Basti, Jamshed Town, Near Mehmodabad Karachi

☐ I agree to receive notification emails

Update Information

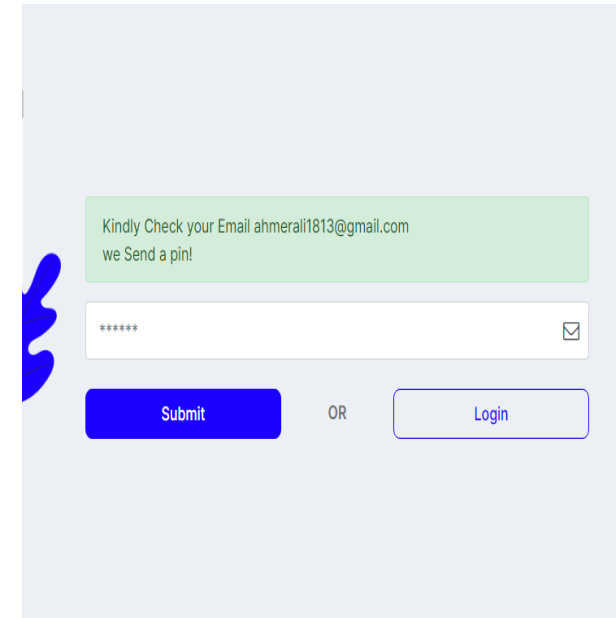
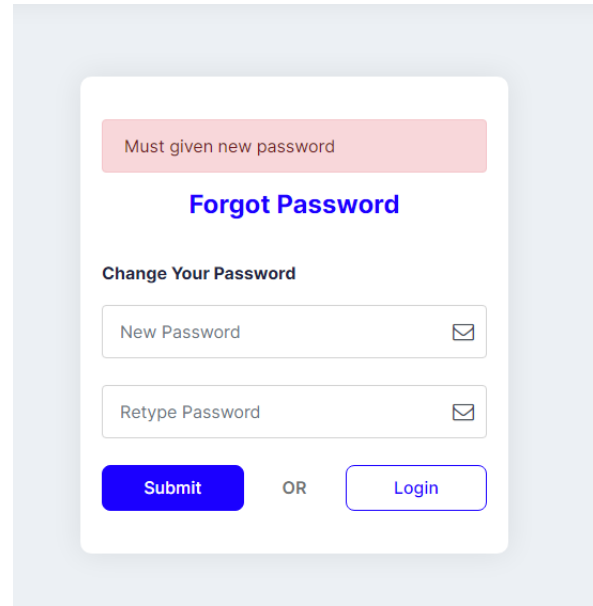
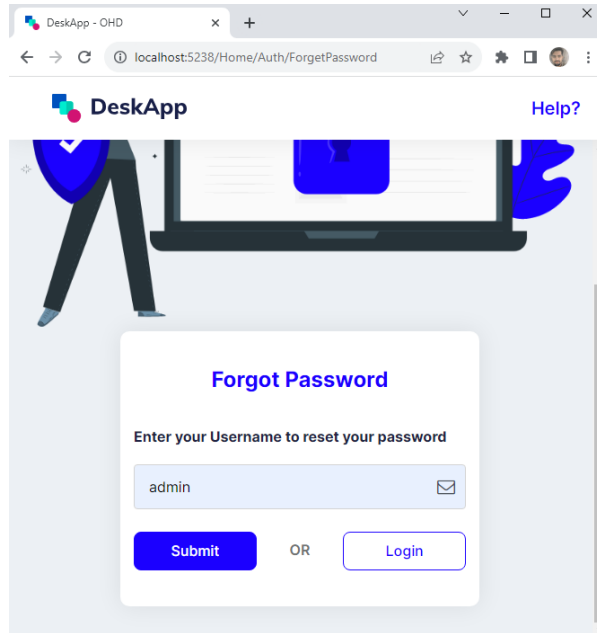
Profile page view controller , services



The image shows a screenshot of the Visual Studio IDE with two code files open: `AuthController.cs` and `AurtrizationServices.cs`. The `AuthController.cs` file is on the left, and the `AurtrizationServices.cs` file is on the right. The `AuthController.cs` file contains a `Profile()` method that checks for session data and calls `_AurthServices.GetProfileUser(Id)`. The `AurtrizationServices.cs` file contains a `GetProfileUser(int id)` method that returns a `ProfileUpdateView` object. The status bar at the bottom shows the current line and column for both files.

```
AuthController.cs
171
172
173
174 [HttpGet]
175 0 references
176 public IActionResult Profile()
177 {
178     if (HttpContext.Session.GetInt32("Id") != null)
179     {
180         _RoleId = (int)HttpContext.Session.GetInt32("Role");
181         ViewImport();
182         int Id = (int)HttpContext.Session.GetInt32("Id");
183         var data = _AurthServices.GetProfileUser(Id);
184         ViewBag.layout = MyLayout;
185         ViewBag.Name = (string)HttpContext.Session.GetString("Name");
186         return View(data);
187     }
188     return RedirectToAction("Auth", "Home", new { area = "Home" });
189 }
190
191
192
193
194 [HttpPost]
195 0 references
196 public IActionResult Profile(ProfileUpdateView vm)
197 {
198     ViewImport();
199     ViewBag.layout = MyLayout;
200     if (ModelState.IsValid)
201     {
202         bool c = _AurthServices.UpdateProfile(vm);
203         if (c == true)
204         {
205             TempData["success"] = "Profile Update successfully";
206         }
207         else { TempData["error"] = "old password is not match"; }
208         return View(vm);
209     }
210     return View(vm);
211 }
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```

Forget password Pages

Forget Password Auth Controller and Services

The image displays two code files in a Visual Studio editor, illustrating the implementation of a 'Forget Password' feature.

AuthController.cs (Left Pane):

```
83 public IActionResult ForgetPassword() => View();
84 [HttpPost]
85 public async Task<IActionResult> ForgetPassword(ChangePasswordView Vm)
86 {
87     SetPin();
88     if(_pin!=0 && Vm.pin == _pin || Vm.id!=0)
89     {
90         ViewBag.SendEmailCheck = true;
91         ViewBag.pinVerified = true;
92         if (Vm.id != 0)
93         {
94             try
95             {
96                 var IsOk = _AurthServices.ForgetPassword(Vm);
97                 if (IsOk == true)...

AurtrizationServices.cs (Right Pane):



```
92 }
93 2 references
94 public bool ForgetPassword(ChangePasswordView view)
95 {
96 try
97 {
98 var model = _unitOfWork.GenericRepository<Register>().GetT(x => x.RegisterId== view.id);
99 var modelVm = new ChangePasswordView().ConvertModel(view, model);
100 _unitOfWork.GenericRepository<Register>().Update(modelVm);
101 _unitOfWork.Save();
102 return true;
103 }
104 catch (NullReferenceException N)
105 {
106 Console.WriteLine(N);
107 }
108 return false;
109 }
110 }
111 }
112 }
113 }
114 2 references
115 public bool UpdateProfile(ProfileUpdateView profile)
116 {
117 try
118 {
119 var model = _unitOfWork.GenericRepository<Register>().GetT(x => x.RegisterId == profile.
120 var modelVm = new ProfileUpdateView().ConvertModel(profile , model);
121 _unitOfWork.GenericRepository<Register>().Update(modelVm);
122 _unitOfWork.Save();
123 return true;
124 }
125 catch(NullReferenceException N)
126 {
127 Console.WriteLine(N);
128 }
129 return false;
130 }
131 }
132 }
```



The status bar at the bottom indicates 'No issues found'.


```

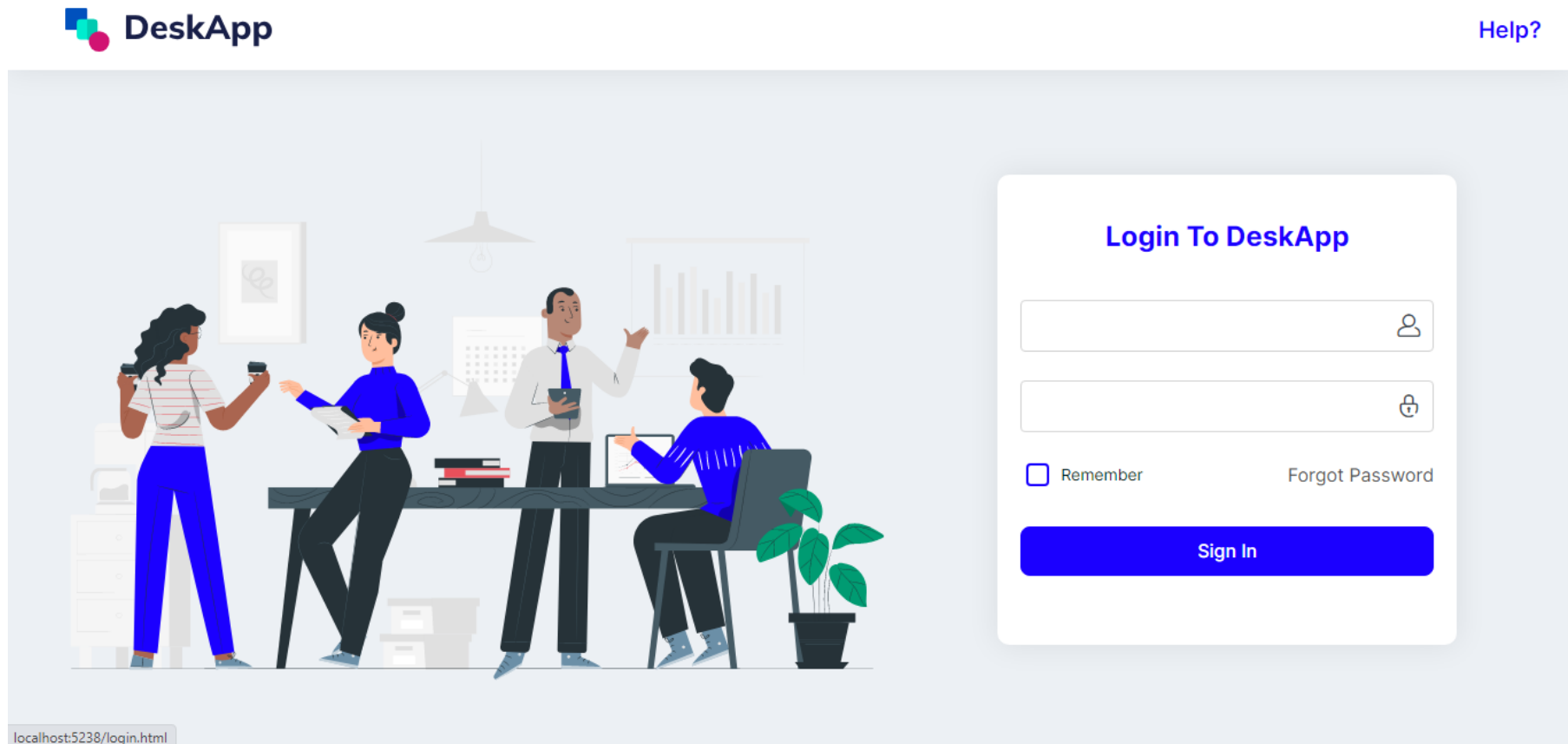
CONCLUSION

The Online Help Desk Project is the small step to reduce the communication distance between the staff and the students.

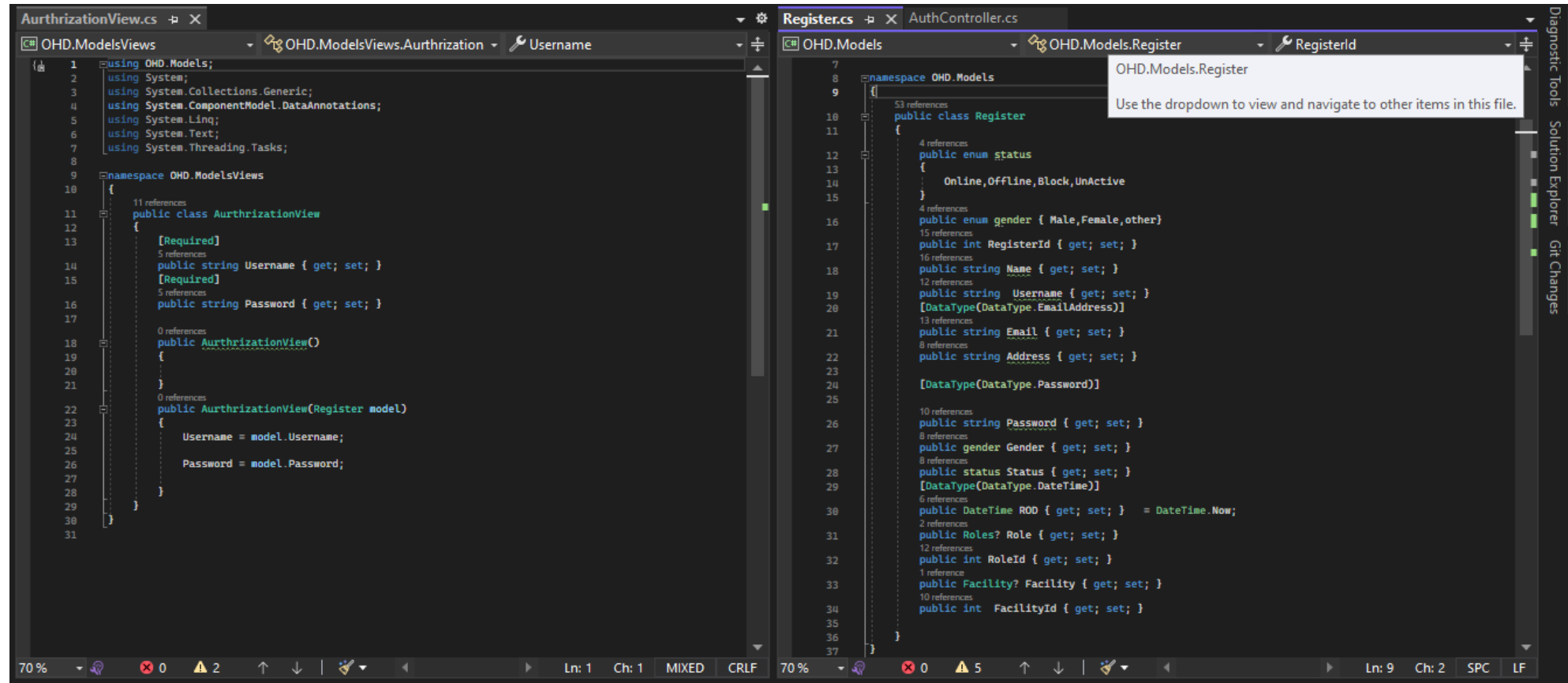
As the growing use of computers and other electronic devices would mean the growing demand on rapid and quick technical support, this Help Desk Support System is carefully designed to fit with the rapid technical support. It not only helps reducing the time of recording and tracking inquires and problems traditionally, but also improves quality and accuracy of data produced by the system which can lead to more facilitation of decision making process in time.

OHD is designed to accommodate future upgrading and development without the need for building a new system to fit with the growing needs and demands of the system. Having this system hosted online means the ability of both technicians and administrator to track and respond to demands of students at any time beyond the boundaries and walls of college which add one more advantage to replacing the paper-based style.

Login page



Login Auth ViewModel And Registers Models



```
AurthrizationView.cs
using OHD.Models;
using System;
using System.Collections.Generic;
using System.ComponentModel.DataAnnotations;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace OHD.ModelsViews
{
    11 references
    public class AurthrizationView
    {
        13 [Required]
        5 references
        public string Username { get; set; }
        15 [Required]
        5 references
        public string Password { get; set; }

        0 references
        public AurthrizationView()
        {
        }

        0 references
        public AurthrizationView(Register model)
        {
            Username = model.Username;
            Password = model.Password;
        }
    }
}
```

```
Register.cs
namespace OHD.Models
{
    53 references
    public class Register
    {
        4 references
        public enum status
        {
            Online, Offline, Block, UnActive
        }

        4 references
        public enum gender { Male, Female, other }

        15 references
        public int RegisterId { get; set; }

        16 references
        public string Name { get; set; }

        12 references
        public string Username { get; set; }
        [DataType(DataType.EmailAddress)]

        13 references
        public string Email { get; set; }

        8 references
        public string Address { get; set; }

        [DataType(DataType.Password)]

        10 references
        public string Password { get; set; }

        8 references
        public gender Gender { get; set; }

        8 references
        public status Status { get; set; }
        [DataType(DataType.DateTime)]

        6 references
        public DateTime ROD { get; set; } = DateTime.Now;

        2 references
        public Roles? Role { get; set; }

        12 references
        public int RoleId { get; set; }

        1 reference
        public Facility? Facility { get; set; }

        10 references
        public int FacilityId { get; set; }
    }
}
```

OHD.Models.Register
Use the dropdown to view and navigate to other items in this file.