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MINI PROJECT – USING DOTNET MVC WEB APP

ONLINE CUSTOMER MANAGEMENT SYSTEM FOR RETAIL SHOPS

ABSTRACT –

This Mini Project of Making Online Customer Management Application For Retail Shop is Helpful for those shops which cannot afford website and have little knowledge of computer literacy.

This Application provides the following feature :

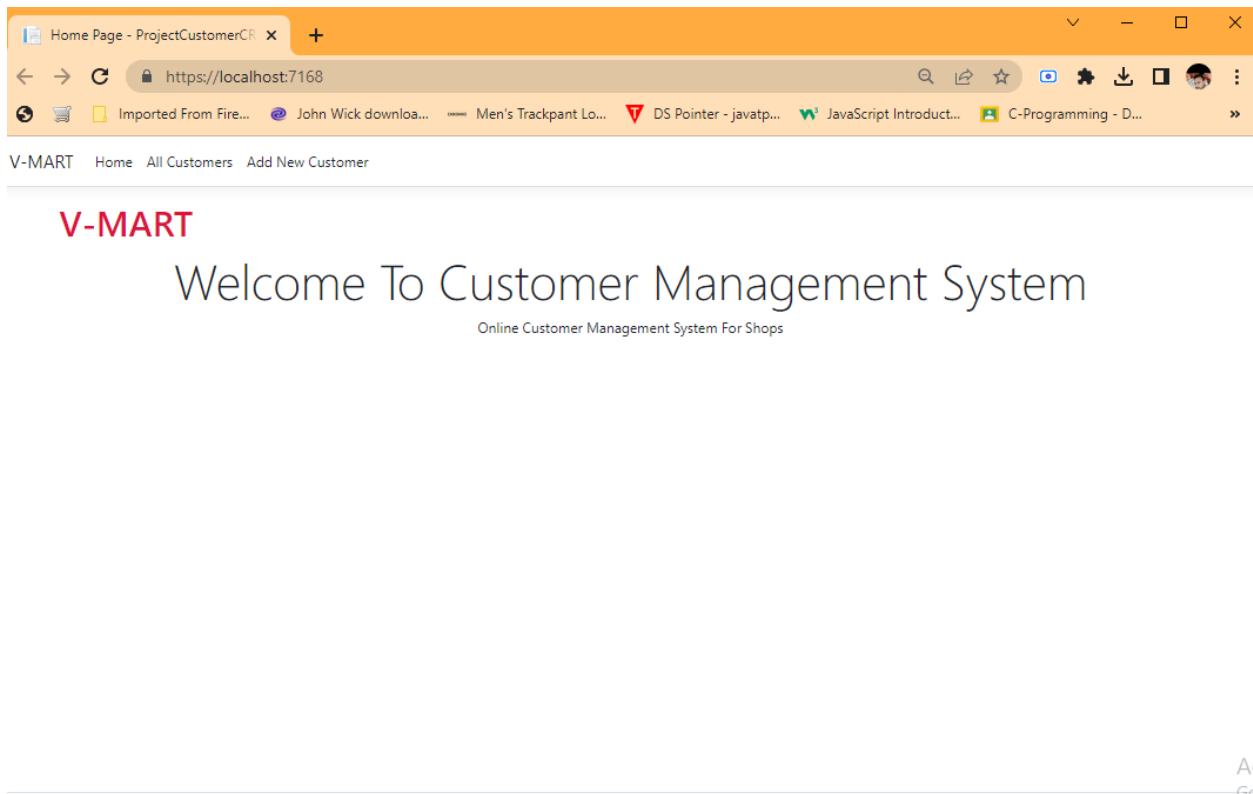
- Show all existing customer's details
- Add a Customer and its details
- Update a customer's details
- Delete a customer's details

Used Technologies :

- BACKEND : DOTNET MVC ARCHITECTURE
- FRONTEND : BOOTSTRAP / CSS
- DATABASE : SQL SERVER

SCALE :

- Notification on their phones regarding offers
- Track record customers purchase items on monthly basis : helpful in inventory management



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ProjectCustomerCRUD Home All Customers Add New Customer

Customers

Id	Name	Email	Phone	City	Postal Code	
ac13e6e3-cc35-4f52-840c-0c78a47420de	harish	harishchauhan458@gmail.com	8012856987	prayagraj	233223	View
083996ad-4850-4462-98fb-4106c7e99f6c	pranit	pranittondwalker@gmail.com	8956412364	mumbai	600023	View
2427c51c-9c1d-4151-97cf-53f1e37901c1	vijay chauhan	vjchauhan861@gmail.com	7018924635	prayagraj	211005	View
9e75123e-1f21-4a97-a79b-6ee1fa567958	prithvi	prithvividhaate@gmail.com	986555599	pune	878545	View
6a1c511e-48bb-4c57-bfd4-d35807d6bf50	sudarshan	sudarshan@gmail.com	6985654175	nashik	635955	View

ProjectCustomerCRUD Home All Customers Add New Customer

Name

Email Address

Phone number

City

Postal Code

☒ Check

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ProjectCustomerCRUD

HomeAll CustomersAdd New Customer

Customers

Id	Name	Email	Phone	City	Postal Code	
ac13e6e3-cc35-4f52-840c-0c78a47420de	harish	harishchauhan458@gmail.com	8012856987	prayagraj	233223	View
083996ad-4850-4462-98fb-4106c7e99f6c	pranit	pranittondwalker@gmail.com	8956412364	mumbai	600023	View
2427c51c-9c1d-4151-97cf-53f1e37901c1	vijay chauhan	vjchauhan861@gmail.com	7018924635	prayagraj	211005	View
9e75123e-1f21-4a97-a79b-6ee1fa567958	prithvi	prithvidhaate@gmail.com	986555599	pune	878545	View
f3a889be-accb-4a84-8ceb-c1b4e34eab2c	supriya	supriya@gmail.com	8956234654	nashik	896655	View
6a1c511e-48bb-4c57-bfd4-d35807d6bf50	sudarshan	sudarshan@gmail.com	6985654175	nashik	635955	View

ProjectCustomerCRUD

HomeAll CustomersAdd New Customer

Edit Customer

Id

f3a889be-accb-4a84-8ceb-c1b4e34eab2c

Name

supriya

Email Address

supriya@gmail.com

Phone number

8956234654

City

nashik

Postal Code

896655

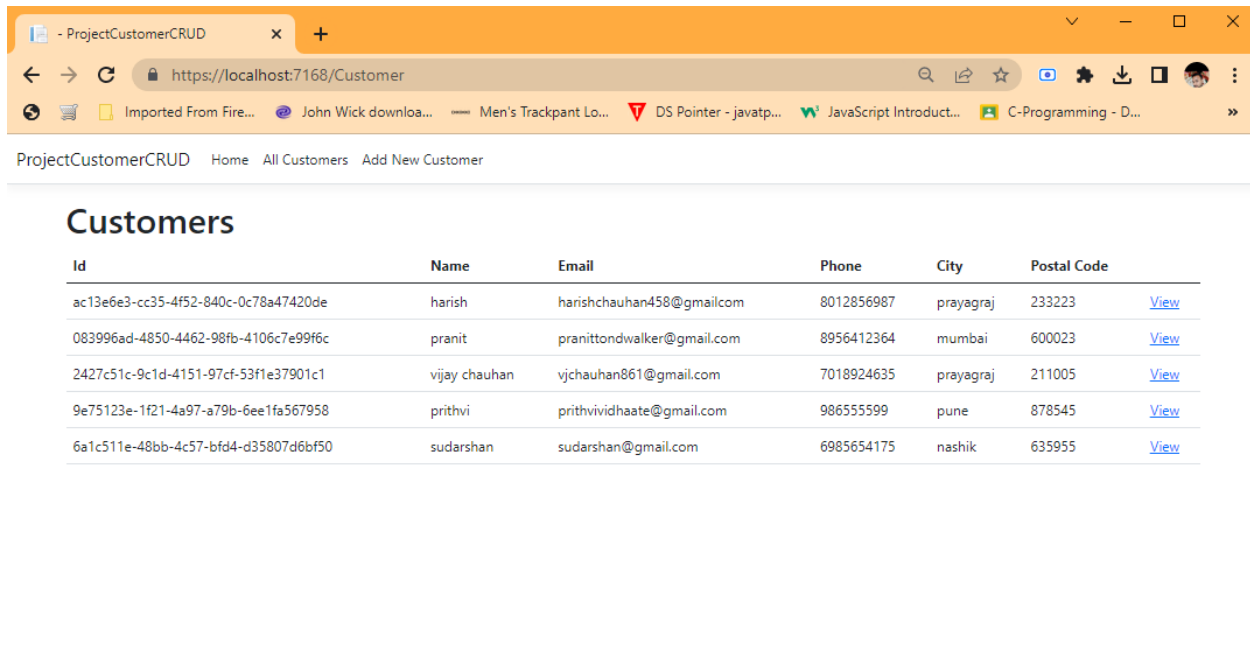
☐ Check

Submit

Delete

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Id	Name	Email	Phone	City	Postal Code	
ac13e6e3-cc35-4f52-840c-0c78a47420de	harish	harishchauhan458@gmailcom	8012856987	prayagraj	233223	View
083996ad-4850-4462-98fb-4106c7e99f6c	pranit	pranittondwalker@gmail.com	8956412364	mumbai	600023	View
2427c51c-9c1d-4151-97cf-53f1e37901c1	vijay chauhan	vjchauhan861@gmail.com	7018924635	prayagraj	211005	View
9e75123e-1f21-4a97-a79b-6ee1fa567958	prithvi	prithvividhaate@gmail.com	986555599	pune	878545	View
6a1c511e-48bb-4c57-bfd4-d35807d6bf50	sudarshan	sudarshan@gmail.com	6985654175	nashik	635955	View

Code Part

#Controllers : 1. Home 2. Customer

#Home Controller

```
using Microsoft.AspNetCore.Mvc;
using ProjectCustomerCRUD.Models;
using System.Diagnostics;

namespace ProjectCustomerCRUD.Controllers
{
    public class HomeController : Controller
    {
        private readonly ILogger<HomeController> _logger;

        public HomeController(ILogger<HomeController> logger)
        {
            _logger = logger;
        }

        public IActionResult Index()
        {
        }
```

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```
        return View();
    }

    public IActionResult Privacy()
    {
        return View();
    }

    [ResponseCache(Duration = 0, Location = ResponseCacheLocation.None, NoStore
= true)]
    public IActionResult Error()
    {
        return View(new ErrorViewModel { RequestId = Activity.Current?.Id ??
HttpContext.TraceIdentifier });
    }
}
```

#Customer Controller

```
using Microsoft.AspNetCore.Mvc;
using Microsoft.EntityFrameworkCore;
using ProjectCustomerCRUD.Data;
using ProjectCustomerCRUD.Models;
using ProjectCustomerCRUD.Models.Domain;

namespace ProjectCustomerCRUD.Controllers
{
    public class CustomerController : Controller
    {
        private readonly MvcDemoDbContext mvcDemoDbContext;

        public CustomerController(MvcDemoDbContext mvcDemoDbContext)
        {
            this.mvcDemoDbContext = mvcDemoDbContext;
        }

        [HttpGet]
        public async Task<IActionResult> Index()
        {
            var customer = await mvcDemoDbContext.Customer.ToListAsync();
            return View(customer);
        }

        [HttpGet]
        public IActionResult Add()
        {
            return View();
        }

        [HttpPost]
        public async Task <IActionResult> Add(AddCustomerViewModel
addCustomerRequest)
        {
            var customer = new Customer()
            {
                Id = Guid.NewGuid(),
                Name = addCustomerRequest.Name,
                Email = addCustomerRequest.Email,
            }
        }
    }
}
```

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```
        Phone = addCustomerRequest.Phone,
        City = addCustomerRequest.City,
        PostalCode = addCustomerRequest.PostalCode,
    };

    await mvcDemoDbContext.Customer.AddAsync(customer);
    await mvcDemoDbContext.SaveChangesAsync();
    return RedirectToAction("Index");
}

[HttpGet]
public async Task <IActionResult> View(Guid id)
{
    var customer = await mvcDemoDbContext.Customer.FirstOrDefault(x =>
x.Id == id);
    if (customer != null) {
        var viewModel = new UpdateCustomerViewModel()
        {
            Id = customer.Id,
            Name = customer.Name,
            Email = customer.Email,
            Phone = customer.Phone,
            City = customer.City,
            PostalCode = customer.PostalCode,
        };
        return await Task.Run(() => View("view", viewModel)) ;
    }
    return RedirectToAction("Index");
}

[HttpPost]
public async Task<IActionResult> View(UpdateCustomerViewModel model)
{
    var customer = await mvcDemoDbContext.Customer.FindAsync(model.Id);
    if (customer != null)
    {
        customer.Name = model.Name;
        customer.Email = model.Email;
        customer.Phone = model.Phone;
        customer.City = model.City;
        customer.PostalCode = model.PostalCode;

        await mvcDemoDbContext.SaveChangesAsync();
        return RedirectToAction("Index");
    }
    return RedirectToAction("Error");
}

[HttpPost]
public async Task<IActionResult> Delete(UpdateCustomerViewModel model)
{
    var customer = await mvcDemoDbContext.Customer.FindAsync(model.Id);
    if(customer != null)
    {
        mvcDemoDbContext.Customer.Remove(customer);
        await mvcDemoDbContext.SaveChangesAsync();

        return RedirectToAction("Index");
    }
    return RedirectToAction("Error");
}
```

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```
    }  
  }  
}
```

#Data : 1. MvcDemoDbContext

```
using Microsoft.EntityFrameworkCore;  
using ProjectCustomerCRUD.Models.Domain;  
  
namespace ProjectCustomerCRUD.Data  
{  
    public class MvcDemoDbContext : DbContext  
    {  
        public MvcDemoDbContext(DbContextOptions options) : base(options)  
        {  
        }  
        public DbSet<Customer> Customer { get; set; }  
    }  
}
```

#Models > Domain > Customer.cs

```
namespace ProjectCustomerCRUD.Models.Domain  
{  
    public class Customer  
    {  
        //Guid is unique identifier  
        public Guid Id { get; set; }  
        public string? Name { get; set; }  
        public string? Email { get; set; }  
        public string? Phone { get; set; }  
        public string? City { get; set; }  
        public string? PostalCode { get; set; }  
    }  
}
```

#Models > Domain > 1. AddCustomerViewModel

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2. ErrorViewModel

3. UpdateCustomerViewModel

```
namespace ProjectCustomerCRUD.Models
{
    public class AddCustomerViewModel
    {
        public string? Name { get; set; }
        public string? Email { get; set; }
        public string? Phone { get; set; }
        public string? City { get; set; }
        public string? PostalCode { get; set; }
    }
}
```

#2. ErrorViewModel

```
namespace ProjectCustomerCRUD.Models
{
    public class ErrorViewModel
    {
        public string? RequestId { get; set; }

        public bool ShowRequestId => !string.IsNullOrEmpty(RequestId);
    }
}
```

3. UpdateCustomerViewModel

```
namespace ProjectCustomerCRUD.Models
{
    public class UpdateCustomerViewModel
    {
        public Guid Id { get; set; }
        public string? Name { get; set; }
        public string? Email { get; set; }
        public string? Phone { get; set; }
        public string? City { get; set; }
        public string? PostalCode { get; set; }
    }
}
```

#Views > 1. Customer 2. Home 3. Shared

#Customer 1.Add.cshtml

2. Error.cshtml

3. Index.cshtml

4,.view.cshtml

1. Add.cshtml

2. @model ProjectCustomerCRUD.Models.AddCustomerViewModel

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```
3. @{
4. }
5. <form method="post" action="Add">
6.     <div class="form-group">
7.         <label for="">Name</label>
8.         <input type="text" class="form-control" asp-for="Name">
9.     </div>
10.    <div class="form-group">
11.        <label for="">Email Address</label>
12.        <input type="email" class="form-control" asp-for="Email">
13.    </div>
14.    <div class="form-group">
15.        <label for="">Phone number</label>
16.        <input type="number" class="form-control" asp-for="Phone">
17.    </div>
18.    <div class="form-group">
19.        <label for="">City</label>
20.        <input type="text" class="form-control" asp-for="City">
21.    </div>
22.    <div class="form-group">
23.        <label for="">Postal Code</label>
24.        <input type="number" class="form-control" asp-for="PostalCode">
25.    </div>
26.    <div class="form-check">
27.        <input type="checkbox" class="form-check-input" id="exampleCheck1">
28.        <label class="form-check-label" for="exampleCheck1">Check </label>
29.    </div>
30.    <button type="submit" class="btn btn-primary">Submit</button>
31. </form>
```

2. Error.cshtml

```
@model ProjectCustomerCRUD.Models.UpdateCustomerViewModel
@{
}

<h1>Customer not found !!!</h1>
<button type="submit" class="btn btn-primary">Back</button>
```

3. Index.cshtml

```
@model List<ProjectCustomerCRUD.Models.Domain.Customer>
@{
}
<h1>Customers</h1>
<table class="table">
    <thead>
        <tr>
            <th>Id</th>
            <th>Name</th>
            <th>Email</th>
            <th>Phone</th>
            <th>City</th>
            <th>Postal Code</th>
            <th> </th>
        </tr>
```

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```
</thead>
<tbody>
  @foreach (var customer in Model)
  {
    <tr>
      <td>@customer.Id</td>
      <td>@customer.Name</td>
      <td>@customer.Email</td>
      <td>@customer.Phone</td>
      <td>@customer.City</td>
      <td>@customer.PostalCode</td>
      <td><a href="Customer/View/@customer.Id"/>View</td>
    </tr>
  }
</tbody>
</table>
```

4,.view.cshtml

```
@model ProjectCustomerCRUD.Models.UpdateCustomerViewModel
```

```
@{
}
```

```
<h1>Edit Customer</h1>
<form method="post" action="View" class="mt-5">
  <div class="form-group">
    <label for="">Id</label>
    <input type="text" class="form-control" asp-for="Id" readonly>
  </div>
  <div class="form-group">
    <label for="">Name</label>
    <input type="text" class="form-control" asp-for="Name">
  </div>
  <div class="form-group">
    <label for="">Email Address</label>
    <input type="email" class="form-control" asp-for="Email">
  </div>
  <div class="form-group">
    <label for="">Phone number</label>
    <input type="number" class="form-control" asp-for="Phone">
  </div>
  <div class="form-group">
    <label for="">City</label>
    <input type="text" class="form-control" asp-for="City">
  </div>
  <div class="form-group">
    <label for="">Postal Code</label>
    <input type="number" class="form-control" asp-for="PostalCode">
  </div>
  <div class="form-check">
    <input type="checkbox" class="form-check-input" id="exampleCheck1">
    <label class="form-check-label" for="exampleCheck1">Check </label>
  </div>
  <button type="submit" class="btn btn-primary">Submit</button>
  <button type="submit" class="btn btn-danger"
    asp-action="Delete"
    asp-controller="Customer">Delete</button>
</form>
```

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