**ASP.NET CORE MVC SYNTAX**

**Cập nhật nhiều hàng bằng cách join**

public *ActionResult* Edit(int *height*)

    {

        var objectsToUpdate = from a in \_context.TableA

                              join b in \_context.TableB on a.Id equals b.UserId

                              where b.Height > height

                              select a;

        foreach (var obj in objectsToUpdate)

        {

            obj.Age = 20;

        }

        \_context.SaveChanges();

        return RedirectToAction("Index");

    }

**Sắp xếp Tăng dần**

public *ActionResult* ListAscending()

{

    var usersAscending = \_context.Users.OrderBy(*u* => u.FieldNameToSort).ToList();

    return View(usersAscending);

}

**Sắp xếp Giảm dần**

public *ActionResult* ListDescending()

{

    var usersDescending = \_context.Users.OrderByDescending(*u* => u.FieldNameToSort).ToList();

    return View(usersDescending);

}

**Để lấy thông tin A.Name, B.Class, và tổng điểm A.Diem với điều kiện A.Id = B.UserId và tổng điểm A.Diem lớn hơn một giá trị diemNhapVao,**

public *ActionResult* GetResults(int *diemNhapVao*)

{

    var query = from a in \_context.TableA

                join b in \_context.TableB on a.Id equals b.UserId

                where a.Diem > diemNhapVao

                group new { a, b } by new { a.Name, b.Class } into grouped

                select new

                {

                    Name = grouped.Key.Name,

                    Class = grouped.Key.Class,

                    TotalDiem = grouped.Sum(*x* => x.a.Diem)

                };

    var results = query.ToList();

    return View(results);

}

@model *List*<dynamic>

<h2>Results</h2>

<table *class*="table">

    <thead>

        <tr>

            <th>Name</th>

            <th>Class</th>

            <th>Total Diem</th>

        </tr>

    </thead>

    <tbody>

        @foreach (var result in Model)

        {

            <tr>

                <td>@result.Name</td>

                <td>@result.Class</td>

                <td>@result.TotalDiem</td>

            </tr>

        }

    </tbody>

</table>

**Vừa xóa CTHD và Xóa Hóa Dơn [LƯU Ý]**

public *ActionResult* DeleteHoaDon(int *mahd*)

{

    // Xóa HoaDon theo mahd

    var hoaDonToDelete = \_context.HoaDons.Find(mahd);

        var cthdsToDelete = \_context.CTHDs.Where(*cthd* => cthd.MaHD == mahd).ToList();

        \_context.CTHDs.RemoveRange(cthdsToDelete);

        \_context.HoaDons.Remove(hoaDonToDelete);

        \_context.SaveChanges();

        return RedirectToAction("Index");

}

**Tính tổng tiền khi thêm CTHD [LƯU Ý]**

[*HttpPost*]

[*ValidateAntiForgeryToken*]

public *ActionResult* AddCTHD(*CTHD* *newCTHD*)

{

        \_context.CTHDs.Add(newCTHD);

        \_context.SaveChanges();

        UpdateHoaDonTongTien(newCTHD.MaHD);

        return RedirectToAction("Index");

}

private void UpdateHoaDonTongTien(int *maHD*)

{

    var hoaDon = \_context.HoaDons.Find(maHD);

        decimal tongTien = \_context.CTHDs

            .Where(*cthd* => cthd.MaHD == maHD)

            .Sum(*cthd* => cthd.DonGia \* cthd.SoLuong);

        hoaDon.TongTien = tongTien;

        \_context.SaveChanges();

}

**Lấy top 5**

public *ActionResult* GetTop5Results()

{

    var query = (from a in \_context.TableA

                 join b in \_context.TableB on a.Id equals b.UserId

                 where a.Age > 18 && b.Height > 180

                 select new

                 {

                     Name = a.Name,

                     SDT = b.SDT

                 }).Take(5);

    var results = query.ToList();

    return View(results);

}

**Tính count và sum [LƯU Ý]**

public *ActionResult* TimKhachHang(int *makh*)

{

    var query = from kh in \_context.KhachHangs

                join hd in \_context.HoaDons on kh.MaKH equals hd.MaKH

                where kh.MaKH == makh

                group new { kh, hd } by new { kh.TenKH } into grouped

                select new

                {

                    TenKH = grouped.Key.TenKH,

                    TongSoHoaDon = grouped.Count(),

                    TongTienHoaDon = grouped.Sum(*x* => x.hd.TongTien)

                };

    var results = query.ToList();

    return View(results);

}

**Mới vào viết file MVCDbContext.cs**

public class MVCDbContext : DbContext

{

public MVCDbContext(DbContextOptions options) : base(options)

{

}

public DbSet<ChuyenBay> ChuyenBay { get; set; }

public DbSet<CT\_CB> CT\_CB { get; set; }

public DbSet<HanhKhach> HanhKhach { get; set; }

public DbSet<MayBay> MayBay { get; set; }

protected override void OnModelCreating(ModelBuilder modelBuilder)

{

modelBuilder.Entity<ChuyenBay>().HasKey(c => c.MaCH);

modelBuilder.Entity<HanhKhach>().HasKey(c => c.MaKH);

modelBuilder.Entity<MayBay>().HasKey(c => c.MaMB);

modelBuilder.Entity<CT\_CB>().HasKey(ct => new {ct.MaCH, ct.MaHK});

}

}

**DẠNG CÂU 1:**

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**File BaiHatController.cs**

[HttpGet]

public IActionResult ThemBaiHat()

{

return View();

}

[HttpPost]

public async Task< IActionResult> ThemBaiHat(BaiHat obj)

{

await \_context.BaiHat.AddAsync(obj);

await \_context.SaveChangesAsync();

return RedirectToAction("ThemBaiHat", "BaiHat");

}

**File ThemBaiHat.cshtml**

@model CRUD2.Models.\_21\_22.BaiHat

<**form** **asp-action**="ThemBaiHat">

<**input** **asp-for**="MaBaiHat" />

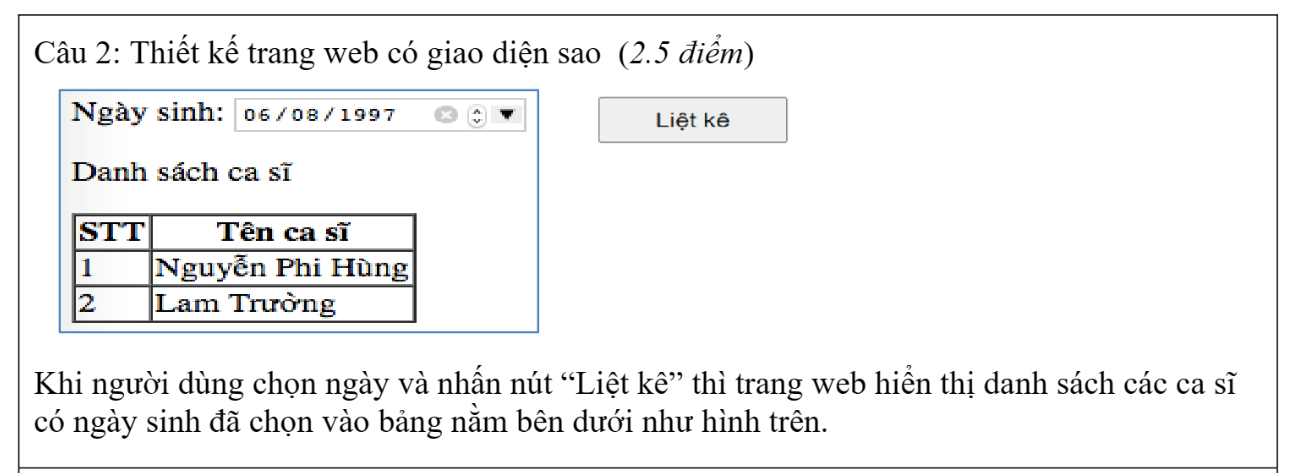
<**input** **asp-for**="TenBaiHat" />

<**input** **asp-for**="TheLoai" />

<button type="submit">Thêm Bài Hát</button>

</**form**>

**DẠNG CÂU 2:**



**CaSiController.cs**

public IActionResult LietKeCaSi(List<CaSi> lietkecasi)

{

if (lietkecasi == null)

{

return View();

}else

{

return View(lietkecasi);

}

}

[HttpGet]

public IActionResult LietKeCaSi(DateTime ngay)

{

var lietkecasi = \_context.CaSi.Where(u => u.NamSinh == ngay).ToList();

return View("LietKeCaSi",lietkecasi);

}

**LietkeCasSi.cshtml**

@model List<CRUD2.Models.\_21\_22.CaSi>

<**form** **asp-action**="LietkeCaSi" method="get">

<input type="date" name="Ngay" />

<button type="submit">Liet Ke </button>

</**form**>

@if (Model != null && Model.Count > 0)

{

<table >

<thead>

<tr>

<th>

STT

</th>

<th>

Ten Ca Si

</th>

</tr>

</thead>

<tbody>

@{

int stt = 1;

}

@foreach (var item in Model)

{

<tr>

<td>

@stt

</td>

<td>

@item.TenCaSi

</td>

</tr>

stt++;

}

</tbody>

</table>

}

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**CongNhanController.cs [LƯU Ý]**

public IActionResult LietKeCongNhan(List<dynamic> list)

{

if(list == null)

{

return View();

}

return View(list);

}

[HttpGet]

public IActionResult LietKeCongNhan(int sotrieuchung)

{

var query = from cn in \_context.CongNhan

join cntc in \_context.CN\_TC on cn.MaCongNhan equals cntc.MaCongNhan

group new { cn, cntc } by new { cn.TenCongNhan, cn.NuocVe, cn.GioiTinh } into g

where g.Count() >= sotrieuchung

select new

{

TenCongNhan = g.Key.TenCongNhan,

NuocVe = g.Key.NuocVe,

GioiTinh = g.Key.GioiTinh,

SoTrieuChung = g.Count()

};

var result = query.ToList();

return View("LietKeCongNhan",result);

}

**LietKeCongNhan.cshtml**

@model List<dynamic>

<**form** **asp-action**="LietKeCongNhan" method="get">

<input type="number" name="sotrieuchung" />

<button type="submit">Liet Ke </button>

</**form**>

@if (Model != null || Model.Count > 0)

{

<table>

<thead>

<tr>

<th>Tên Công Nhân</th>

<th>Nước Về</th>

<th>Giới Tính</th>

<th>Số Triệu Chứng</th>

</tr>

</thead>

<tbody>

@foreach (var item in Model)

{

<tr>

<td>@item.TenCongNhan</td>

<td>@item.NuocVe</td>

<td>@item.GioiTinh</td>

<td>@item.SoTrieuChung</td>

</tr>

}

</tbody>

</table>

}

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**ChuyenBayController.cs**

public IActionResult LietKe()

{

return View();

}

public IActionResult XemThongTinChuyenBay(string macb)

{

var chuyenbay = \_context.ChuyenBay.FirstOrDefault(c => c.MaCH == macb);

ViewBag.ChuyenBay = chuyenbay;

ViewBag.sochovip = \_context.CT\_CB.Where(ct => ct.MaCH == macb && ct.LoaiGhe == true).Count();

ViewBag.sochothuong = \_context.CT\_CB.Where(ct => ct.MaCH == macb && ct.LoaiGhe == false).Count();

ViewBag.dslietke = from ct in \_context.CT\_CB

join hk in \_context.HanhKhach on ct.MaHK equals hk.MaHK

where ct.MaCH == macb

select new {

MaHK = hk.MaHK,

HoTen = hk.HoTen,

DienThoai = hk.DienThoai,

SoGhe = ct.SoGhe,

LoaiGhe = ct.LoaiGhe

};

return View();

}

**LietKe.cshtml**

<**form** method="get" **asp-action**="XemThongTinChuyenBay">

Mã chuyến bay <input type="text" name="macb" />

<button type="submit">Liệt kê</button>

</**form**>

**XemThongTinChuyenBay.cshtml**

Chuyến <input value="@ViewBag.chuyenbay.Chuyen" disabled/>

Điểm đi

<input value="@ViewBag.chuyenbay.DDi" disabled />

Điểm đến

<input value="@ViewBag.chuyenbay.DDen" disabled />

Ngày bay

<input value="@ViewBag.chuyenbay.Ngay" disabled />

Giờ đi

<input value="@ViewBag.chuyenbay.GBay" disabled />

Giờ đến

<input value="@ViewBag.chuyenbay.GDen" disabled />

Chỗ VIP

<input value="@ViewBag.sochovip" disabled /> /

<input value="@ViewBag.chuyenbay.Vip" disabled />

Chỗ Thường

<input value="@ViewBag.sochothuong" disabled /> /

<input value="@ViewBag.chuyenbay.Thuong" disabled />

<button onclick="window.location.href=

'@Url.Action("ThemHanhKhachChuyenBay", "CTCB", new { macb = ViewBag.chuyenbay.MaCH })'">

Thêm hành khách

</button>

<table>

<tr>

<th>Họ tên hành khách</th>

<th>Điện thoại</th>

<th>Loại ghế</th>

<th>Số ghế</th>

<th>Chức năng</th>

</tr>

@foreach (var item in ViewBag.dslietke)

{

<tr>

<td>@item.HoTen</td>

<td>@item.DienThoai</td>

<td>

@(item.LoaiGhe == true ? "VIP" : "Thường")

</td>

<td>@item.SoGhe</td>

<td>

<**a** **asp-controller**="CTCB" **asp-action**="XoaHanhKhachChuyenBay" **asp-route-macb**="@ViewBag.chuyenbay.MaCH" **asp-route-mahk**="@item.MaHK">Xóa</**a**>

<**a** **asp-controller**="CTCB" **asp-action**="SuaHanhKhachChuyenBay" **asp-route-macb**="@ViewBag.chuyenbay.MaCH" **asp-route-mahk**="@item.MaHK">Sửa</**a**>

</td>

</tr>

}

</table>

**DẠNG CÂU 3:**

**A screenshot of a computer

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**PlaylistController.cs**

private void loadNN()

{

List<NguoiNghe> listNguoiNghe = \_context.NguoiNghe.ToList();

ViewBag.nguoinghelist = listNguoiNghe;

}

public IActionResult LietKePlayList(List<PlayList> lietkeplayList)

{

loadNN();

if (lietkeplayList == null)

{

return View();

} else

{

return View(lietkeplayList);

}

}

[HttpGet]

public IActionResult LietKePlayList(String mann)

{

var lietkeplayList = \_context.PlayList.Where(u => u.MaNN == mann).ToList();

return View("LietKePlayList", lietkeplayList);

}

**LietKePlayList.cshtml**

@model List<CRUD2.Models.\_21\_22.PlayList>

<**form** **asp-action**="LietKePlayList" method="get">

<select name="mann" >

foreach (var nguoiNghe in ViewBag.nguoinghelist)

{

<**option** **value**="@nguoiNghe.MaNguoiNghe">@nguoiNghe.TenNN</**option**>

}

</select>

<button type="submit" >Liệt kê</button>

</**form**>

@{

int stt = 1;

}

@if (Model != null && Model.Any())

{

<table class="table">

<thead>

<tr>

<th>

STT

</th>

<th>

Tên Playlist

</th>

<th>

Chức năng

</th>

</tr>

</thead>

<tbody>

@foreach (var item in Model)

{

<tr>

<td>

@stt

</td>

<td>

<a href="PlayList/XemChiTiet?@item.MaPlayList">

@item.TenPlayList

</a>

</td>

<td>

<a href="PlayList/XoaPlayList?@item.MaPlayList">Xóa</a>

</td>

</tr>

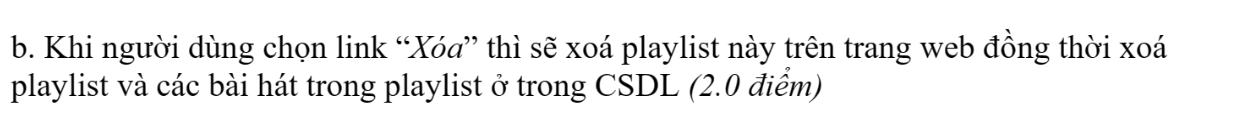
stt++;

}

</tbody>

</table>

}

****

public IActionResult XoaPlayList(string maplaylist)

{

var playlist = \_context.PlayList.Find(maplaylist);

// Lấy danh sách các bài hát thuộc playlist

var baihat = \_context.BaiHat

.Where(b => \_context.PlayList\_BaiHat

.Any(pb => pb.MaBaiHat == b.MaBaiHat && pb.MaPlayList == playlist.MaPlayList))

.ToList();

// Xóa các bài hát thuộc playlist trong bảng PlayList\_BaiHat

var playlistBaiHatEntries = \_context.PlayList\_BaiHat

.Where(pb => pb.MaPlayList == playlist.MaPlayList);

\_context.PlayList\_BaiHat.RemoveRange(playlistBaiHatEntries);

// Xóa các bài hát thuộc playlist

\_context.BaiHat.RemoveRange(baihat);

// Xóa playlist

\_context.PlayList.Remove(playlist);

// Lưu các thay đổi vào cơ sở dữ liệu

\_context.SaveChanges();

return RedirectToAction("LietKePlayList");

}

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public IActionResult XemChiTiet(string maplaylist)

{

var query = from baihat in \_context.BaiHat

join playlist\_baihat in \_context.PlayList\_BaiHat

on baihat.MaBaiHat equals playlist\_baihat.MaBaiHat

join casi\_baihat in \_context.CaSi\_BaiHat

on playlist\_baihat.MaBaiHat equals casi\_baihat.MaBaiHat

join casi in \_context.CaSi

on casi\_baihat.MaCaSi equals casi.MaCaSi

where playlist\_baihat.MaPlayList == maplaylist

select new

{

TenBaiHat = baihat.TenBaiHat,

TenCaSi = casi.TenCaSi,

};

ViewBag.list = query.ToList();

return View();

}

**XemChiTiet.cshtml**

<table>

<thead>

<tr>

<th>Tên Bài Hát</th>

<th>Tên Ca Sĩ</th>

</tr>

</thead>

<tbody>

@foreach (var item in ViewBag.list)

{

<tr>

<td>@item.TenBaiHat</td>

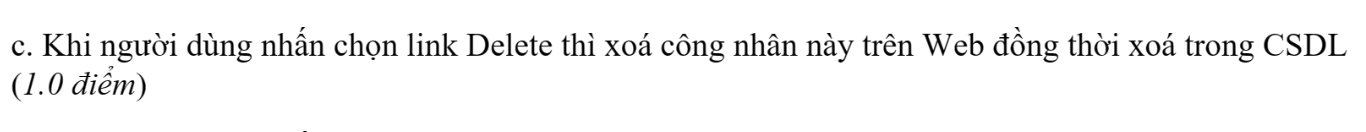
<td>@item.TenCaSi</td>

</tr>

}

</tbody>

</table>

****

public IActionResult Delete(string macongnhan)

{

var congnhan = \_context.CongNhan.FirstOrDefault(cn => cn.MaCongNhan == macongnhan);

\_context.CongNhan.Remove(congnhan);

\_context.SaveChanges();

return RedirectToAction("LietKeCongNhan");

}

**A screenshot of a computer

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**Controller**

public IActionResult ViewCongNhan(string macongnhan)

{

var congnhan = \_context.CongNhan.FirstOrDefault(cn => cn.MaCongNhan == macongnhan);

return View(congnhan);

}

**csHtml**

<**form** **asp-action**="CapNhatCongNhan" method="post">

<**input** **type**="hidden" **asp-for**="MaCongNhan" />

<**input** **asp-for**="TenCongNhan" />

<**input** **asp-for**="NamSinh" />

<**input** **type**="checkbox" **asp-for**="GioiTinh"

checked="@(Model.GioiTinh ? "checked" : null)" />

<**input** **asp-for**="NuocVe" />

<button type="submit" >Cập nhật</button>

</**form**>

**Hoặc có thể**

<**form** **asp-action**="CapNhatCongNhan" method="post">

<input type="hidden" name="MaCongNhan" value="@ViewBag.Macongnhan" />

<input type="text" name="TenCongNhan" value="@ViewBag.TenCongNhan" />

<input type="text" name="NamSinh" value="@ViewBag.NamSinh" />

<input type="checkbox" name="GioiTinh" checked="@(ViewBag.GioiTinh == true ? "checked" : null)" />

<input type="text" name="NuocVe" value="@ViewBag.NuocVe" />

<button type="submit" >Cập nhật</button>

</**form**>

**Cập nhật**

[HttpPost]

public IActionResult CapNhatCongNhan(CongNhan congNhan)

{

var existingCongNhan = \_context.CongNhan.FirstOrDefault(cn => cn.MaCongNhan == congNhan.MaCongNhan);

existingCongNhan.TenCongNhan = congNhan.TenCongNhan;

existingCongNhan.NamSinh = congNhan.NamSinh;

\_context.SaveChanges();

return RedirectToAction("ViewCongNhan", new { macongnhan = existingCongNhan.MaCongNhan });

}

**A screenshot of a computer

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**CTCBController.cs**

private void loadTenHK()

{

ViewBag.listhanhkhach = \_context.HanhKhach.ToList();

}

public IActionResult ThemHanhKhachChuyenBay(string macb)

{

var chuyenbay = \_context.ChuyenBay.FirstOrDefault(c => c.MaCH == macb);

ViewBag.ChuyenBay = chuyenbay;

ViewBag.sochovip = \_context.CT\_CB.Where(ct => ct.MaCH == macb && ct.LoaiGhe == true).Count();

ViewBag.sochothuong = \_context.CT\_CB.Where(ct => ct.MaCH == macb && ct.LoaiGhe == false).Count();

loadTenHK();

return View();

}

[HttpPost]

public IActionResult ThemHanhKhachChuyenBay( string macb, string mahk, Boolean loaighe, string soghe )

{

\_context.CT\_CB.Add(new CT\_CB()

{

MaCH = macb,

MaHK = mahk,

LoaiGhe = loaighe,

SoGhe = soghe

});

\_context.SaveChanges();

return RedirectToAction("XemThongTinChuyenBay","ChuyenBay", new {macb = macb});

}

**ThemHanhKhachChuyenBay.cshtml**

Chuyến

<input value="@ViewBag.ChuyenBay.Chuyen" disabled />

Điểm đi

<input value="@ViewBag.ChuyenBay.DDi" disabled />

Điểm đến

<input value="@ViewBag.ChuyenBay.DDen" disabled />

Ngày bay

<input value="@ViewBag.ChuyenBay.Ngay" disabled />

Giờ đi

<input value="@ViewBag.ChuyenBay.GBay" disabled />

Giờ đến

<input value="@ViewBag.ChuyenBay.GDen" disabled />

Chỗ VIP

<input value="@ViewBag.sochovip" disabled /> /

<input value="@ViewBag.ChuyenBay.Vip" disabled />

Chỗ Thường

<input value="@ViewBag.sochothuong" disabled /> /

<input value="@ViewBag.ChuyenBay.Thuong" disabled />

<**form** **asp-action**="ThemHanhKhachChuyenBay" method="post">

<input value="@ViewBag.ChuyenBay.MaCH" type="hidden" name="macb"/>

Mã Hành Khách <input type="text" name="mahk" />

Tên Hành Khách <select >

@foreach (var item in ViewBag.listhanhkhach)

{

<**option** **value**="@item.HoTen">@item.HoTen</**option**>

}

</select >

Loại ghế <select name="loaighe" >

<**option** **value**="true">VIP</**option**>

<**option** **value**="false">Thường</**option**>

<select/>

Số Ghế <input type="text" name="soghe" />

<button type="submit">Thêm hành khách</button>

</**form**>

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**CTCBController.cs**

public IActionResult SuaHanhKhachChuyenBay(string macb, string mahk)

{

ViewBag.CT\_CB = \_context.CT\_CB.FirstOrDefault(ct => ct.MaCH == macb && ct.MaHK == mahk);

ViewBag.hanhkhach = \_context.HanhKhach.FirstOrDefault(hk => hk.MaHK == mahk);

return View();

}

[HttpPost]

public IActionResult SuaHanhKhachChuyenBay(string macb, string mahk, Boolean loaighe, string soghe)

{

var ctcb = \_context.CT\_CB.FirstOrDefault(ct => ct.MaCH == macb && ct.MaHK == mahk);

ctcb.LoaiGhe = loaighe;

ctcb.SoGhe = soghe;

\_context.SaveChanges();

return RedirectToAction("XemThongTinChuyenBay","ChuyenBay", new {macb = macb});

}

**SuaHanhKhachChuyenBay.cshtml**

<**form** **asp-action**="SuaHanhKhachChuyenBay" method="post">

<input value="@ViewBag.CT\_CB.MaCH" type="hidden" name="macb" />

Mã hành khách <input type="text" name="mahk" value="@ViewBag.hanhkhach.MaHK" disabled />

Tên hành khách <input type="text" name="tenhk" value="@ViewBag.hanhkhach.HoTen" disabled />

Loại ghế <select name="loaighe">

@if(ViewBag.CT\_CB.LoaiGhe == true)

{

<**option** **value**="true" selected>VIP</**option**>

<**option** **value**="false">Thường</**option**>

}

else

{

<**option** **value**="true">VIP</**option**>

<**option** **value**="false" selected>Thường</**option**>

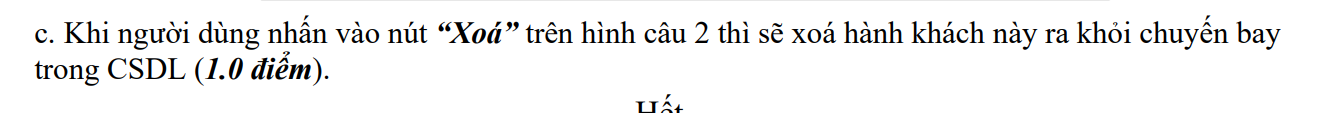
})

</select>

Số ghế <input type="text" name="soghe" value="@ViewBag.CT\_CB.SoGhe" />

<button type="submit">Sửa</button>

</**form**>

****

**CTCBController.cs**

public IActionResult XoaHanhKhachChuyenBay(string macb, string mahk)

{

var ctcb = \_context.CT\_CB.FirstOrDefault(ct => ct.MaCH == macb && ct.MaHK == mahk);

\_context.CT\_CB.Remove(ctcb);

\_context.SaveChanges();

return RedirectToAction("XemThongTinChuyenBay", "ChuyenBay", new { macb = macb });

}

**TRƯỜNG HỢP LẤY CA SĨ NGHE TẤT CẢ BÀI HÁT(PHÉP CHIA)**

public *IActionResult* ViewAllCaSi()

{

*List*<*CaSi*> casiList = new *List*<*CaSi*>();

    using (*SqlConnection* connection = new *SqlConnection*(connectionString))

    {

        connection.Open();

        string sql = "SELECT MaCaSi, TenCaS*i*

                        FROM CaSi C

                        WHERE NOT EXISTS (SELECT \*

                                            FROM BaiHat B

                                            WHERE NOT EXISTS (SELECT \*

                                                            FROM CASI\_BAIHAT CS\_BH

                                                            WHERE CS\_BH.MaCaSi = C.MaCaSi

                                                            AND CS\_BH.MaBaiHat = B.MaBaiHat))"*;*

        using (SqlCommand command = new *SqlCommand*(sql, connection))

        {

            using (SqlDataReader reader = command.ExecuteReader())

            {

                while (reader.Read())

                {

                    CaSi casi = new *CaSi*

                    {

                        MaCaSi = reader["MaCaSi"].ToString(),

                        TenCaSi = reader["TenCaSi"].ToString()

                    };

                    casiList.Add(casi);

                }

            }

        }

    }

    return View(casiList);

}