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using System;
using System.Collections.Generic;
using System.Linq;
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```
class Employee
{
    public int EmployeeID { get; set; }
    public string FirstName { get; set; }
    public string LastName { get; set; }
    public string Title { get; set; }
    public DateTime DOB { get; set; }
    public DateTime DOJ { get; set; }
    public string City { get; set; }
}
```

```
class Program
{
    static void Main()
    {

        List<Employee> empList = new List<Employee>
        {
            new Employee { EmployeeID = 1001, FirstName = "Malcolm", LastName = "Daruwalla",
                Title = "Manager", DOB = DateTime.Parse("1984-11-16"), DOJ = DateTime.Parse("2011-06-08"),
                City = "Mumbai" },
            new Employee { EmployeeID = 1002, FirstName = "Asdin", LastName = "Dhalla", Title =
                "AsstManager", DOB = DateTime.Parse("1984-08-20"), DOJ = DateTime.Parse("2012-07-07"), City
                = "Mumbai" },
            new Employee { EmployeeID = 1003, FirstName = "Madhavi", LastName = "Oza", Title =
                "Consultant", DOB = DateTime.Parse("1987-11-14"), DOJ = DateTime.Parse("2015-04-12"), City =
                "Pune" },
            new Employee { EmployeeID = 1004, FirstName = "Saba", LastName = "Shaikh", Title =
                "SE", DOB = DateTime.Parse("1990-06-03"), DOJ = DateTime.Parse("2016-02-02"), City = "Pune"
            },
        }
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        new Employee { EmployeeID = 1005, FirstName = "Nazia", LastName = "Shaikh", Title =
"SE", DOB = DateTime.Parse("1991-03-08"), DOJ = DateTime.Parse("2016-02-02"), City =
"Mumbai" },

        new Employee { EmployeeID = 1006, FirstName = "Amit", LastName = "Pathak", Title =
"Consultant", DOB = DateTime.Parse("1989-11-07"), DOJ = DateTime.Parse("2014-08-08"), City =
"Chennai" },

        new Employee { EmployeeID = 1007, FirstName = "Vijay", LastName = "Natrajan", Title =
"Consultant", DOB = DateTime.Parse("1989-12-02"), DOJ = DateTime.Parse("2015-06-01"), City =
"Mumbai" },

        new Employee { EmployeeID = 1008, FirstName = "Rahul", LastName = "Dubey", Title =
"Associate", DOB = DateTime.Parse("1993-11-11"), DOJ = DateTime.Parse("2014-11-06"), City =
"Chennai" },

        new Employee { EmployeeID = 1009, FirstName = "Suresh", LastName = "Mistry", Title =
"Associate", DOB = DateTime.Parse("1992-08-12"), DOJ = DateTime.Parse("2014-12-03"), City =
"Chennai" },

        new Employee { EmployeeID = 1010, FirstName = "Sumit", LastName = "Shah", Title =
"Manager", DOB = DateTime.Parse("1991-04-12"), DOJ = DateTime.Parse("2016-01-02"), City =
"Pune" }

};

```

```

Console.WriteLine("All Employees:");

foreach (var emp in empList)
{
    Console.WriteLine($"{emp.EmployeeID}, {emp.FirstName} {emp.LastName}, {emp.Title},
{emp.DOB.ToShortDateString()}, {emp.Doj.ToShortDateString()}, {emp.City}");
}

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Console.WriteLine("\nEmployees not from Mumbai:");

var notMumbai = empList.Where(e => e.City != "Mumbai");

foreach (var emp in notMumbai)
{
    Console.WriteLine($"{emp.EmployeeID}, {emp.FirstName} {emp.LastName}, {emp.City}");
}

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Console.WriteLine("\nEmployees with title AsstManager:");

var asstManagers = empList.Where(e => e.Title == "AsstManager");

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foreach (var emp in asstManagers)
{
    Console.WriteLine($"{emp.EmployeeID}, {emp.FirstName} {emp.LastName}, {emp.Title}");
}

Console.WriteLine("\nEmployees whose last name starts with S:");
var lastNameS = empList.Where(e => e.LastName.StartsWith("S"));
foreach (var emp in lastNameS)
{
    Console.WriteLine($"{emp.EmployeeID}, {emp.FirstName} {emp.LastName}");
}

Console.WriteLine("\nEmployees who joined before 01/01/2015:");
var joinedBefore2015 = empList.Where(e => e.DOJ < DateTime.Parse("2015-01-01"));
foreach (var emp in joinedBefore2015)
{
    Console.WriteLine($"{emp.EmployeeID}, {emp.FirstName} {emp.LastName},
{emp.DOJ.ToShortDateString()}");
}

Console.WriteLine("\nEmployees born after 01/01/1990:");
var bornAfter1990 = empList.Where(e => e.DOB > DateTime.Parse("1990-01-01"));
foreach (var emp in bornAfter1990)
{
    Console.WriteLine($"{emp.EmployeeID}, {emp.FirstName} {emp.LastName},
{emp.DOB.ToShortDateString()}");
}

Console.WriteLine("\nEmployees who are Consultant or Associate:");
var consultantsOrAssociates = empList.Where(e => e.Title == "Consultant" || e.Title ==
"Associate");

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foreach (var emp in consultantsOrAssociates)
{
    Console.WriteLine($"{emp.EmployeeID}, {emp.FirstName} {emp.LastName}, {emp.Title}");
}

Console.WriteLine($"Total number of employees: {empList.Count}");

Console.WriteLine($"Total number of employees in Chennai: {empList.Count(e => e.City ==
"Chennai")}");

Console.WriteLine($"Highest Employee ID: {empList.Max(e => e.EmployeeID)}");

Console.WriteLine($"Total number of employees joined after 01/01/2015:
{empList.Count(e => e.DOJ > DateTime.Parse("2015-01-01"))}");

Console.WriteLine($"Total number of employees not Associate: {empList.Count(e => e.Title
!= "Associate")}");

Console.WriteLine($"Total number of employees by city:");

var empByCity = empList.GroupBy(e => e.City).Select(group => new { City = group.Key,
Count = group.Count() });

foreach (var group in empByCity)
{
    Console.WriteLine($"{group.City}: {group.Count}");
}

Console.WriteLine($"Total number of employees by city and title:");

var empByCityAndTitle = empList.GroupBy(e => new { e.City, e.Title }).Select(group => new {
group.Key.City, group.Key.Title, Count = group.Count() });

foreach (var group in empByCityAndTitle)
{

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        Console.WriteLine($"{group.City} - {group.Title}: {group.Count}");
    }

    Console.WriteLine("\nYoungest Employee:");
    var youngest = empList.OrderByDescending(e => e.DOB).First();
    Console.WriteLine($"{youngest.EmployeeID}, {youngest.FirstName} {youngest.LastName},
{youngest.DOB.ToShortDateString()}");
}
}
```