Inner join Example

Inner Join

As per Microsoft -

"An inner join produces a result set in which each element of the first collection appears one time for every matching element in the second collection. If an element in the first collection has no matching elements, it does not appear in the result set."

In Simple words – Inner join = Elements which has a common properties in both the data-sources

```
var addresses = new List<Address>()
{
    new Address(){    Id = 1, AddressLine = "Line 1"},
    new Address(){    Id = 2, AddressLine = "Line 2"},
    new Address(){    Id = 3, AddressLine = "Line 3"},
    new Address(){    Id = 4, AddressLine = "Line 4"},
    new Address(){    Id = 5, AddressLine = "Line 5"},
};

var qs = (from student in students
    join address in addresses
    on student.AddressId equals address.Id
    select new
    {
        StudentName = student.Name,
        Line = address.AddressLine
    }).ToList();

Console.ReadLine();
}
```

```
var addresses = new List<Address>()
    new Address(){ Id = 1, AddressLine = "Line 1"},
    new Address(){ Id = 2, AddressLine = "Line 2"},
    new Address(){ Id = 3, AddressLine = "Line 3"},
    new Address(){ Id = 4, AddressLine = "Line 4"},
    new Address(){ Id = 5, AddressLine = "Line 5"},
var ms = students.Join(addresses,
                        std => std.AddressId,
                        address => address.Id,
                        (std, address) => new
                            StudentName = std.Name,
                            Line = address.AddressLine
                        }).ToList();
var qs = (from student in students
          join address in addresses
          on student.AddressId equals address.Id
              StudentName = student.Name,
              Line = address.AddressLine
          }).ToList();
```

Inner join in multiple tables

query method for multiple inner join

```
var qs = (from student in students
    join address in addresses
    on student.AddressId equals address.Id
    join mark in marks
    on student.Id equals mark.StudentId
    select new
{
        StudentName = student.Name,
        Line = address.AddressLine,
        TotalMarks = mark.TMarks
}).ToList();
```