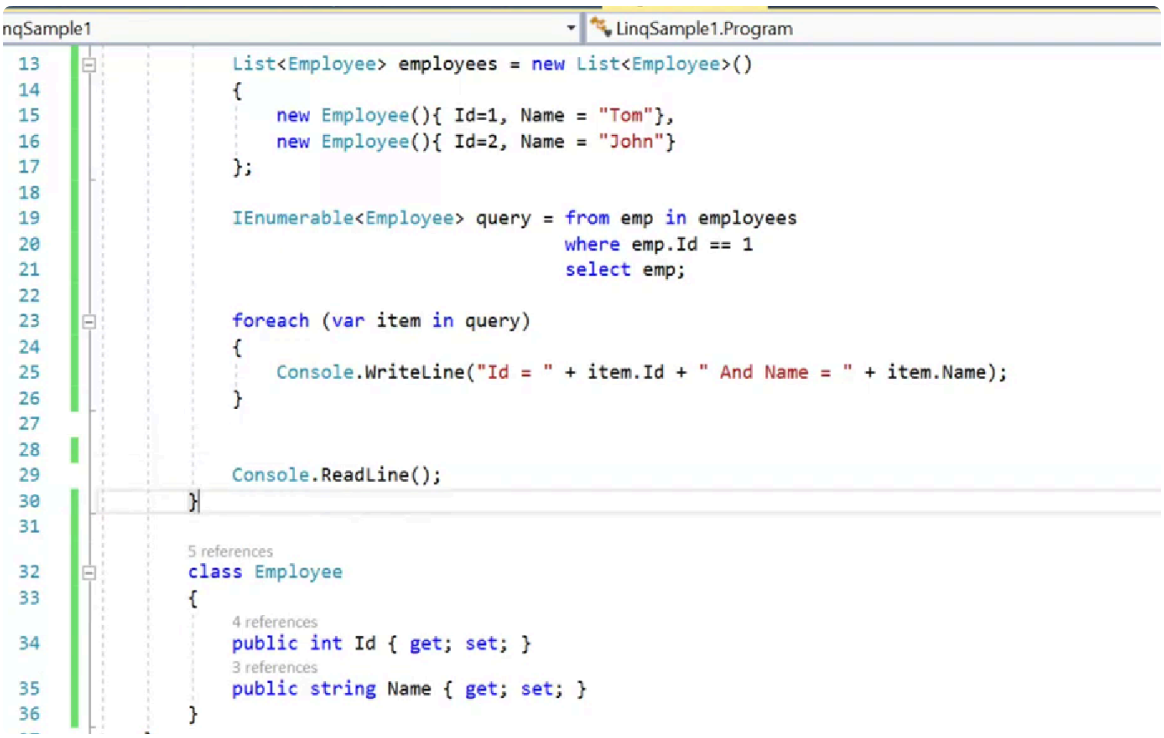
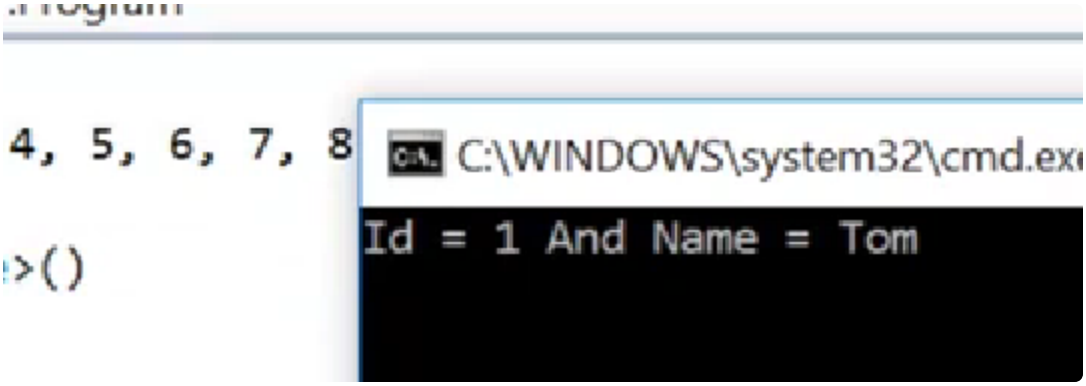
IEnumerable & IQuerable

IEnumerable

- ✓ IEnumerable is an interface.
- ✓ IEnumerable is available in System.Collection namespace.
- ✓ All the collections in C# implements IEnumerable
- ✓ This interface is a type if Iteration design pattern.
- ✓ So, Because of this interface we can iterate (foreach loop) on collection.
- ✓ IEnumerable also has a child for generic classes- IEnumerable<T>
- ✓ IEnumerable or IEnumerable<T> should be used for in memory data objects.





IQuerable

IQuerable

- ✓ IQuerable is an interface.
- ✓ IQuerable is available in System.Linq namespace
- ✓ IQuerable is a child of IEnumerable.
- ✓ IQuerable has a property named as Provider which is of type IQueryProvider interface. And it is used in LinqProviders.
- ✓ IQuerable is best choice for other data provider (ex – Linq to Entities etc....)

Example

```
static void Main(string[] args)
{
    List<int> list = new List<int>() { 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 };

    List<Employee> employees = new List<Employee>()
    {
        new Employee(){ Id=1, Name = "Tom"},
        new Employee(){ Id=2, Name = "John"}
    };

    IEnumerable<Employee> query = from emp in employees
                                  where emp.Id == 1
                                  select emp;

    IQueryable<Employee> query1 = employees.AsQueryable().Where(x => x.Id == 1);



    foreach (var item in query1)
    {
        Console.WriteLine("Id = " + item.Id + " And Name = " + item.Name);
    }
```