

Pagination using the skip and Take

Why Pagination

Paging -

- ✓ Suppose you have lots of records in a data source and you need to display those records on a view then -

1. Display all the records at once
 - Issue – Network travel, Memory management, Performance, unreadable content etc...
2. Implement paging

Pagination

Paging -

- ✓ **Paging** – Paging is a process of dividing n number of records into multiple pages. At one-page certain number of records are visible. And next record set can be visible with next - previous button or scroll or using some other technique.
- ✓ **Benefits** -
- Fast data travel (Because less data will be traveled)
 - Improve memory management
 - Easy to read
 - Drawback – In Client server structure it increases no. of request sent to server

How to implement paging

- ✓ Paging can be implemented using LINQ
- ✓ To implement using LINQ we can use **skip** and **take** operator.
- ✓ How –

Suppose total page – t

number of records per page - n

Formula –

for index => skip(index*n) take(n)

for pages => skip ((pageNumber – 1) * n) take(n)

Example

```

0 references
public static List<Employee> GetEmployees()
{
    return new List<Employee>()
    {
        new Employee(){ Id = 1, Name = "Mario Speedwagon"},
        new Employee(){ Id = 2, Name = "Petey Cruiser"},
        new Employee(){ Id = 3, Name = "Anna Sthesia"},
        new Employee(){ Id = 4, Name = "Paul Molive"},
        new Employee(){ Id = 5, Name = "Anna Mull"},
        new Employee(){ Id = 6, Name = "Gail Forcewind"},
        new Employee(){ Id = 7, Name = "Paige Turner"},
        new Employee(){ Id = 8, Name = "Rob Fizzles"}
    };
}

int totalPagePerView = 4;

do
{
    Console.WriteLine("Enter your page number");

    if (int.TryParse(Console.ReadLine(), out int pageNumber))
    {
        var ms = GetEmployees().Skip((pageNumber - 1) * totalPagePerView).Take(totalPagePerView);

        foreach (var item in ms)
        {
            Console.WriteLine($"Id = {item.Id} and Name = {item.Name}");
        }
    }
    else
    {
        Console.WriteLine("Enter a valid page number");
    }
} while (true);
}

```