### Learning goals

- ☑ Paging on the API & Client
- Filtering on the API & Client
- ☑IQueryable<T>



# IQueryable<T>

- Query variable stores query commands
- IQueryable<T>
  - Creates an Expression tree
- Execution is deferred until iteration:
  - ForEach loop
  - ToList(), ToArray(), ToDictionary()
  - Singleton queries (Count, Average etc)

## Example

```
var queryable = _context.Activities
    Where (x => \overline{x}.Date >= request.StartDate)
    .OrderBy(x => x.Date)
    .AsQueryable();
var activities = await queryable
    Skip(request.Offset ?? 0)
    .Take(request.Limit ?? 3)
    ToListAsync();
                                        Execute query
```















es Activities

Errors

Create Activity





#### 08 JUN 2021



### Future Activity 5

Hosted by Bob

You are hosting this activity

● 08 Jun 2021 2:55 PM Punch and Judy

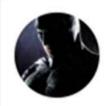




Activity 5 months in future

View

#### 08 AUG 2021



### Future Activity 7

Hosted by Bob

You are hosting this activity

O 08 Aug 2021 2:55 PM ● All





Activity 7 months in future

View



**	•	April 2021			,	39
MON	TUE	WED	THU	FRI	SAT	SUN
29	30	31	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	1	2















Activities

Errors

**Create Activity** 







Tom

**FOLLOWERS** 

About

**FOLLOWING** 

**Following** 



Activities

**Future Events** 

Past Events

Hosting



Future Activity 1 8th Feb 2:55 PM



Future Activity 2 8th Mar 2:55 PM



Future Activity 6 8th Jul 2:55 PM



Future Activity 7 8th Aug 2:55 PM

Photos Events Followers Following



Future Activity 8



Section 21: Paging, Sorting and Filtering  1 / 15   1hr 41min					
235. Introduction  5min					
236. Adding a PagedList class  8min					
<ul><li>237. Adding application layer pagination logic</li><li>8min</li></ul>					
238. Adding a pagination header  9min					
239. Adding client side pagination  8min					
240. Adding pagination parameters  6min					
241. Adding vertical paging  6min					
242. Adding infinite scrolling  5min					
243. Adding filtering in the API  7min					
244. Client side filtering  9min					
245. Updating the filter component  4min					
246. Adding placeholders  6min					
247. Adding a user profile activities component + challenge					
248. Challenge solution  11min					
249. Summary of section 21					