

Thinking in Patterns



Mark Heath

Software Architect

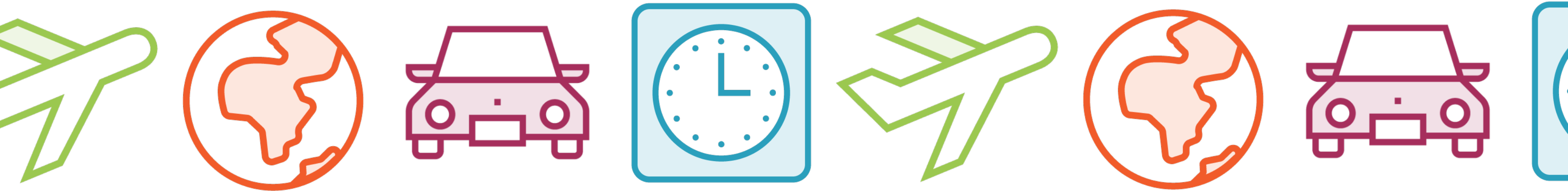
@mark_heath www.markheath.net



Looping Through Collections

Just use a **for** or **foreach** loop?

Maybe **LINQ** can help us?



Learn to spot repeating **patterns**



Declarative or Imperative Code?

Says **what** we want to do

Moves implementation details
out of the way

Expresses our intent

Declarative Code

Says **how** it should be done

Specifies implementation
details

Can obscure our intent

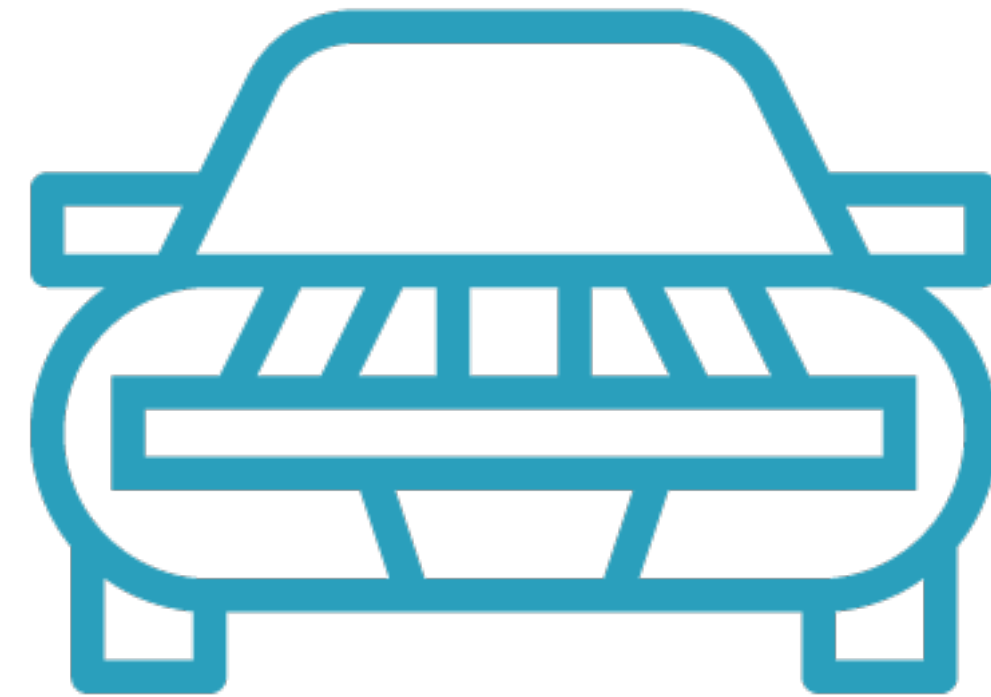
Imperative Code



Challenge



LINQ Challenge



Motorsport Scores



Pro Tip



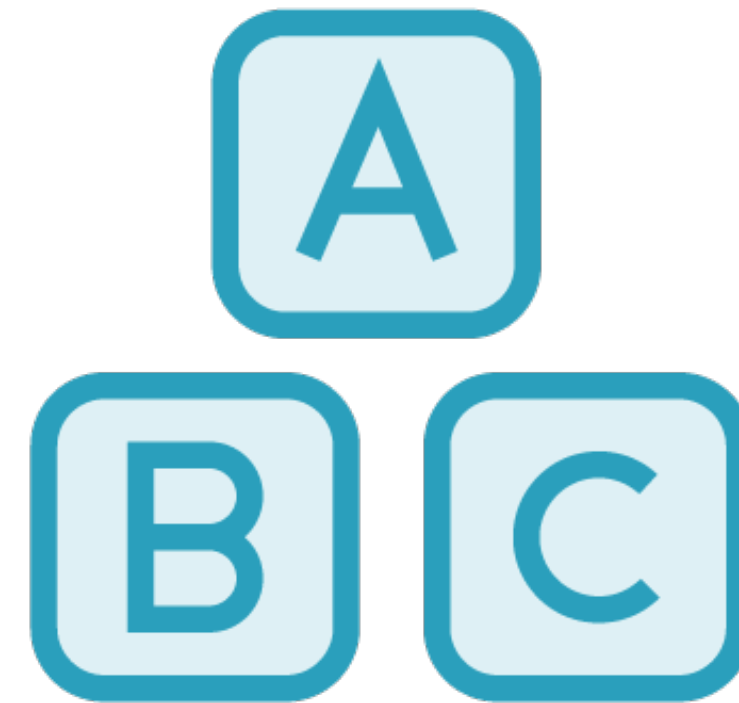
Get to Know the Available
LINQ Extensions



Challenge



Spot the Pattern #1



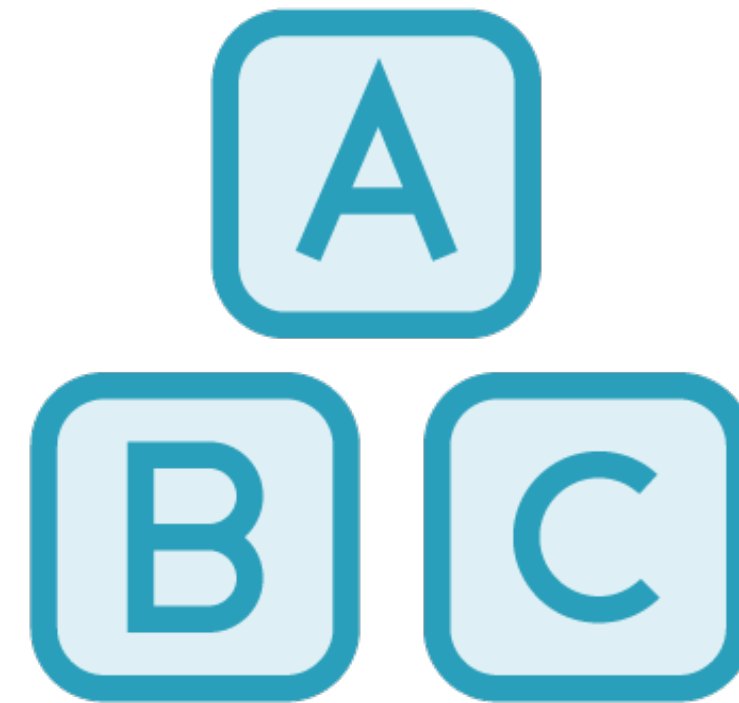
Filtering Collections



Challenge



Spot the Pattern #2



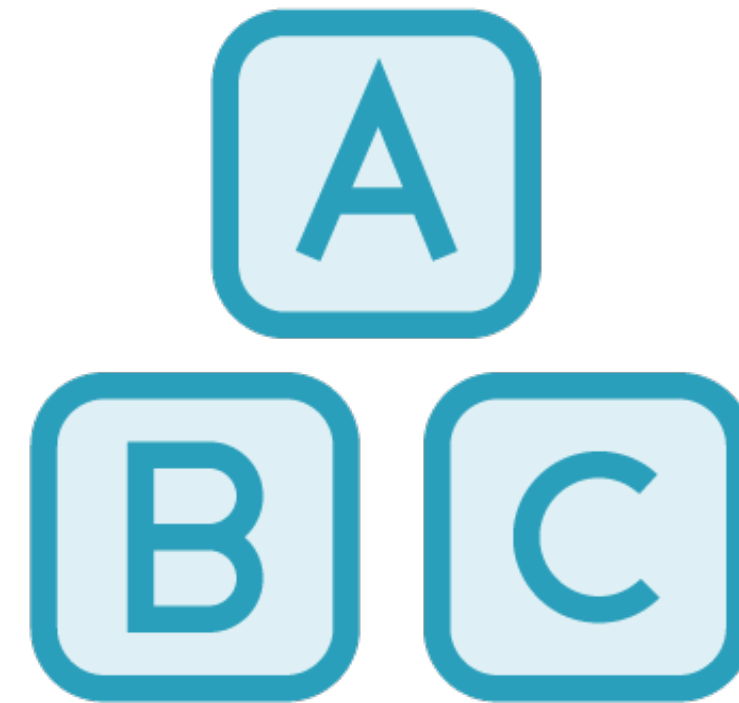
Finding One Item



Challenge



Spot the Pattern #3



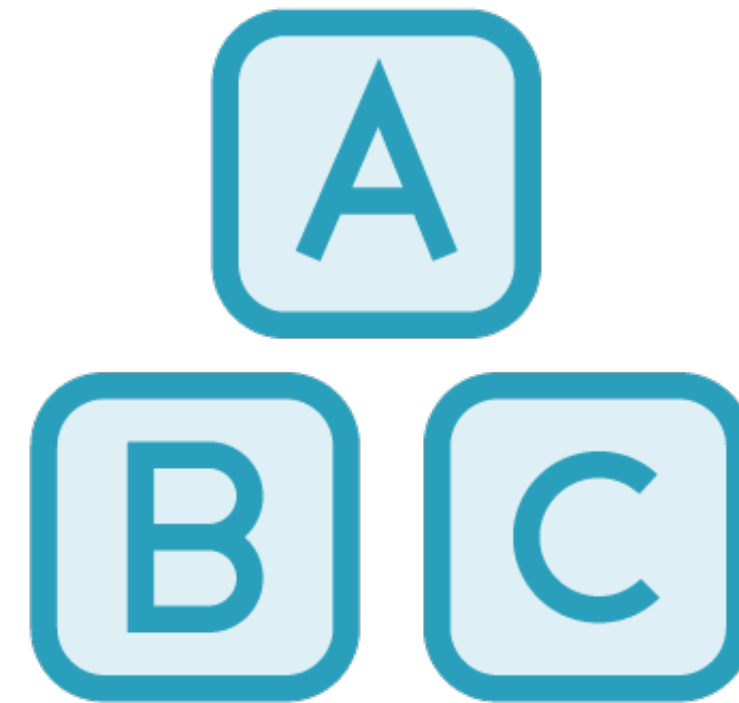
True for Everything?



Challenge



Spot the Pattern #4



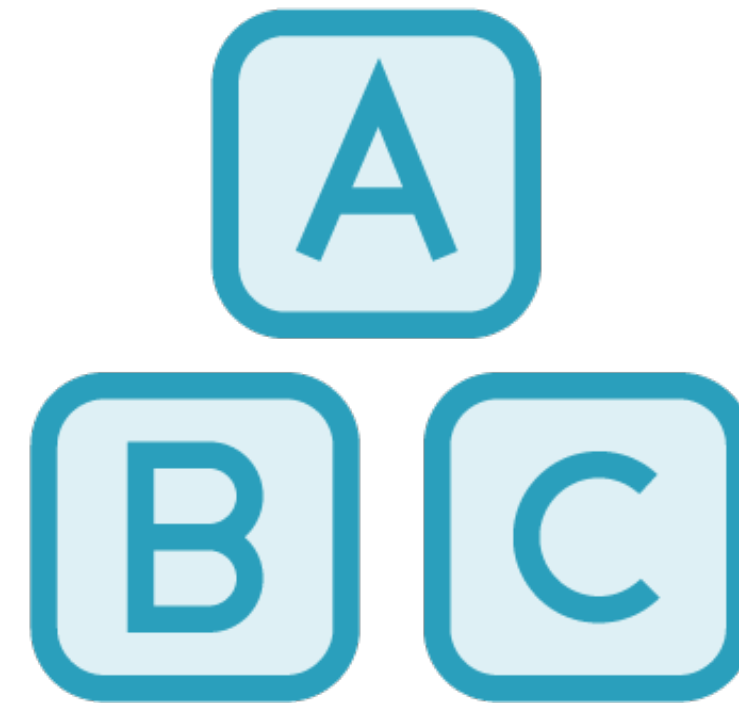
Transforming Objects



Challenge



Spot the Pattern #5



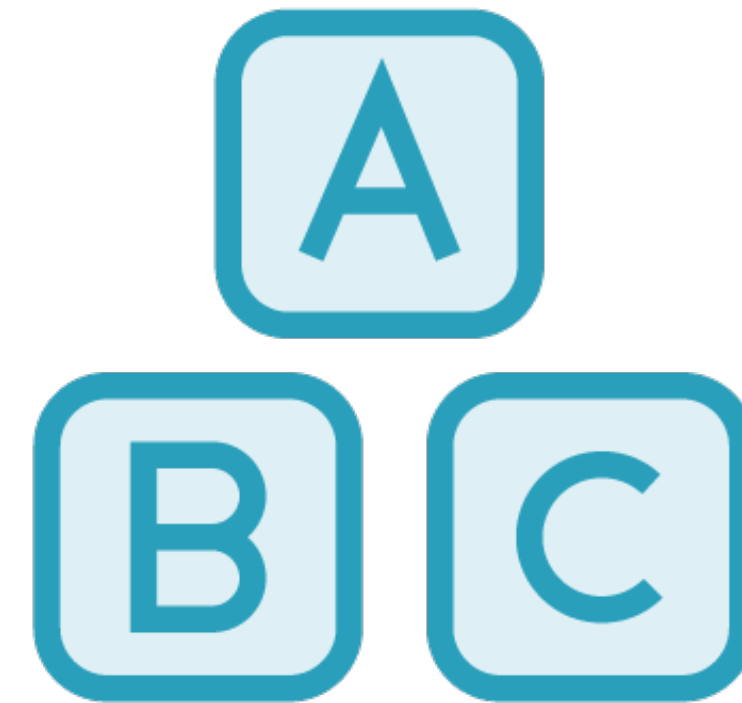
How Many like This?



Challenge



Spot the Pattern #6



Grouping Things



Pro Tip



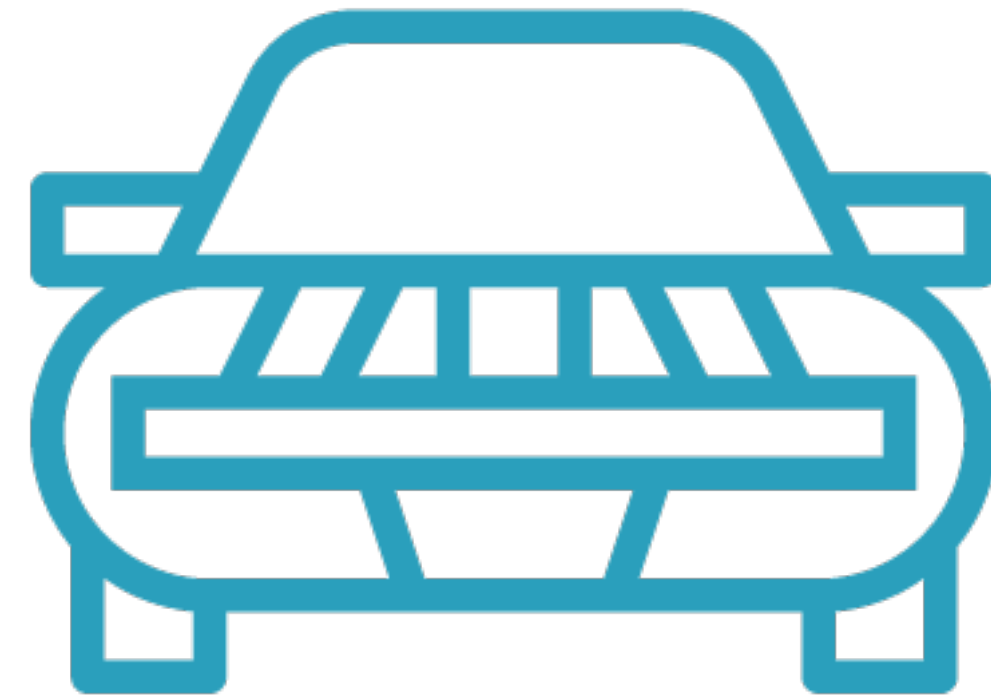
Use Productivity Tools to
Spot Patterns



Solution



LINQ Challenge



Motorsport Scores



Summary



Learn to see repeating patterns

LINQ can simplify our code

- Express intent with declarative code

Use productivity tools

- e.g. ReSharper can detect patterns

LINQ extension methods can be chained



Up Next: LINQ Pipelines

