Caching in the .NET Stack: Inside-Out

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Benefits of Caching

- **Performance**
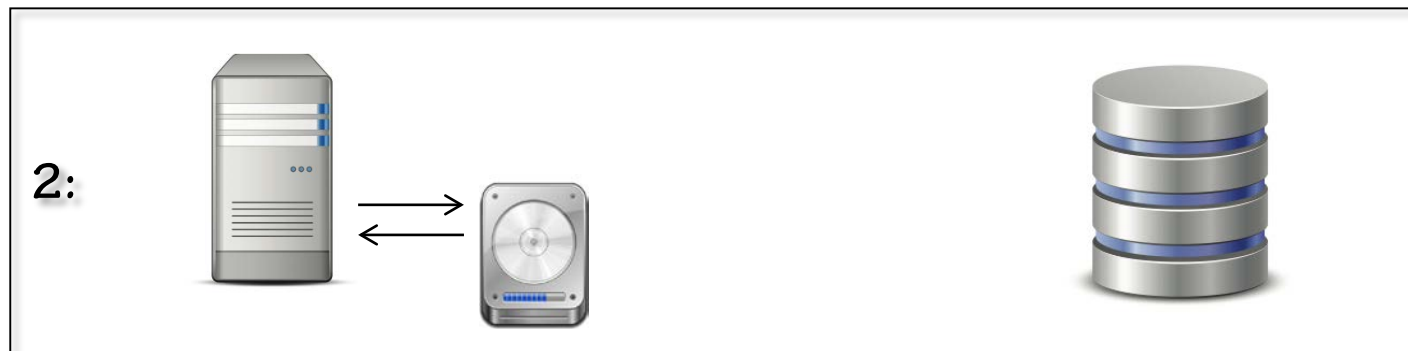 - Reduced response time
  - Reduced infrastructure usage
    - CPU time, database utilisation, network bandwidth,

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Benefits of Caching

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Aims of the Course

- **Caching Techniques**
  - Internal caching with AOP
    - Local, remote, distributed cache stores
  - External caching on the client
  - Invalidation and expiration
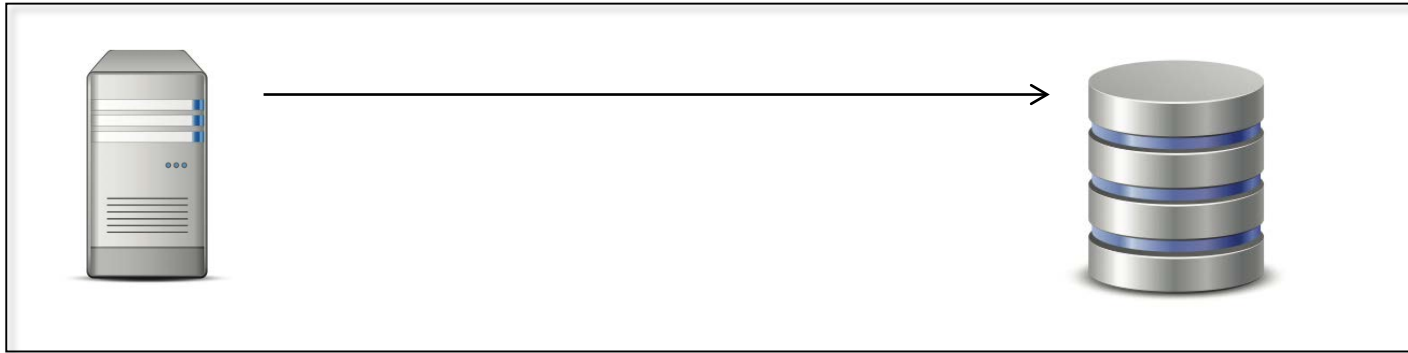- **Technologies**
  - MemoryCache, NCache Express, AppFabric Caching
  - memcacheD, Azure Table Storage, disk
  - HTTP
- **Decision criteria**
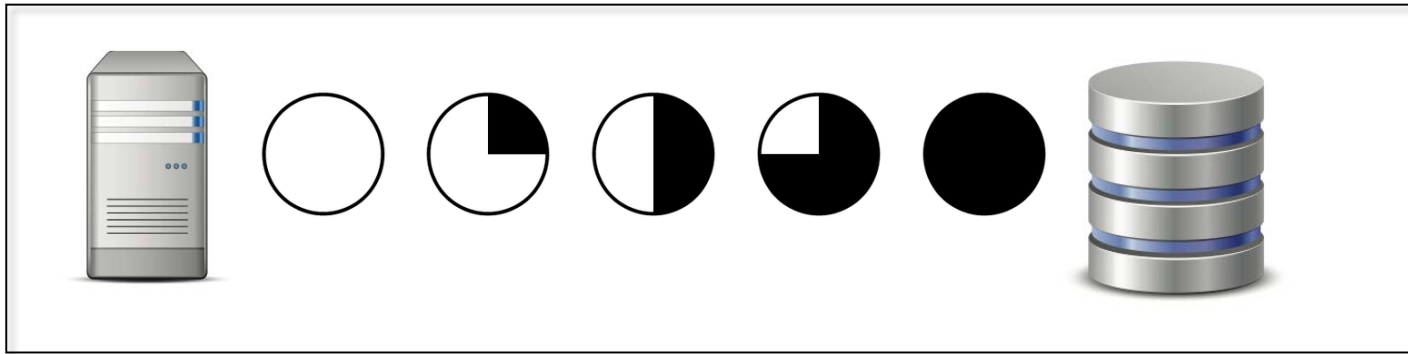 - Longevity, breadth, cost and size

About Caching
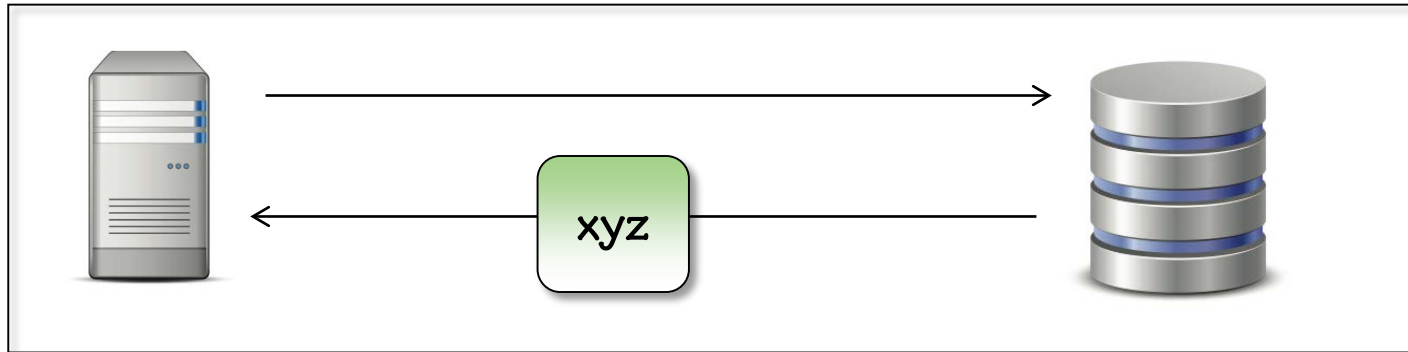
- Access a resource from the owner; keep a local copy

About Caching

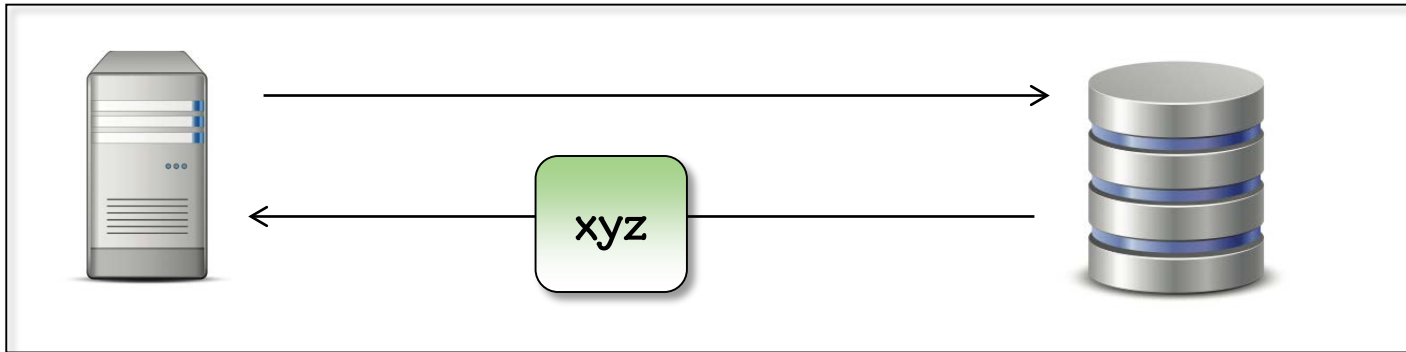- **Access a resource from the owner; keep a local copy**

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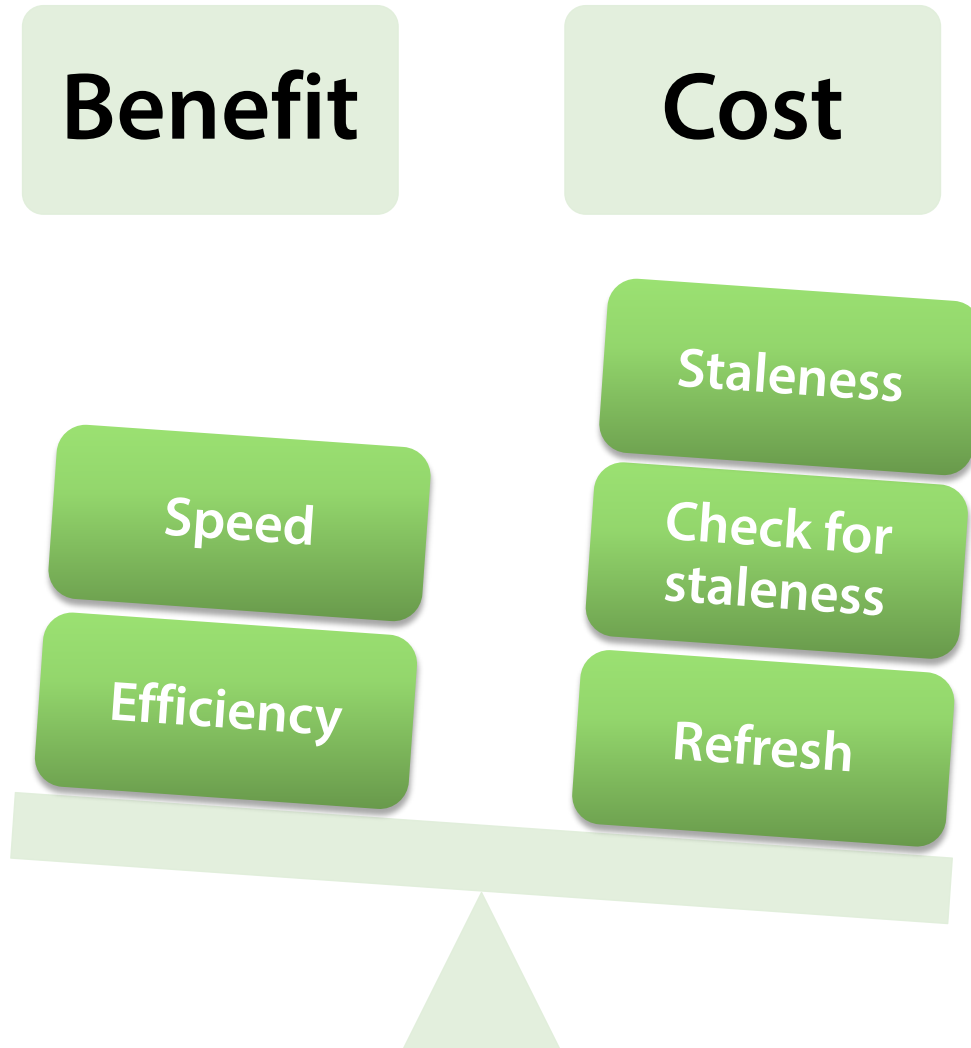
The Cost of Caching

- **Staleness**
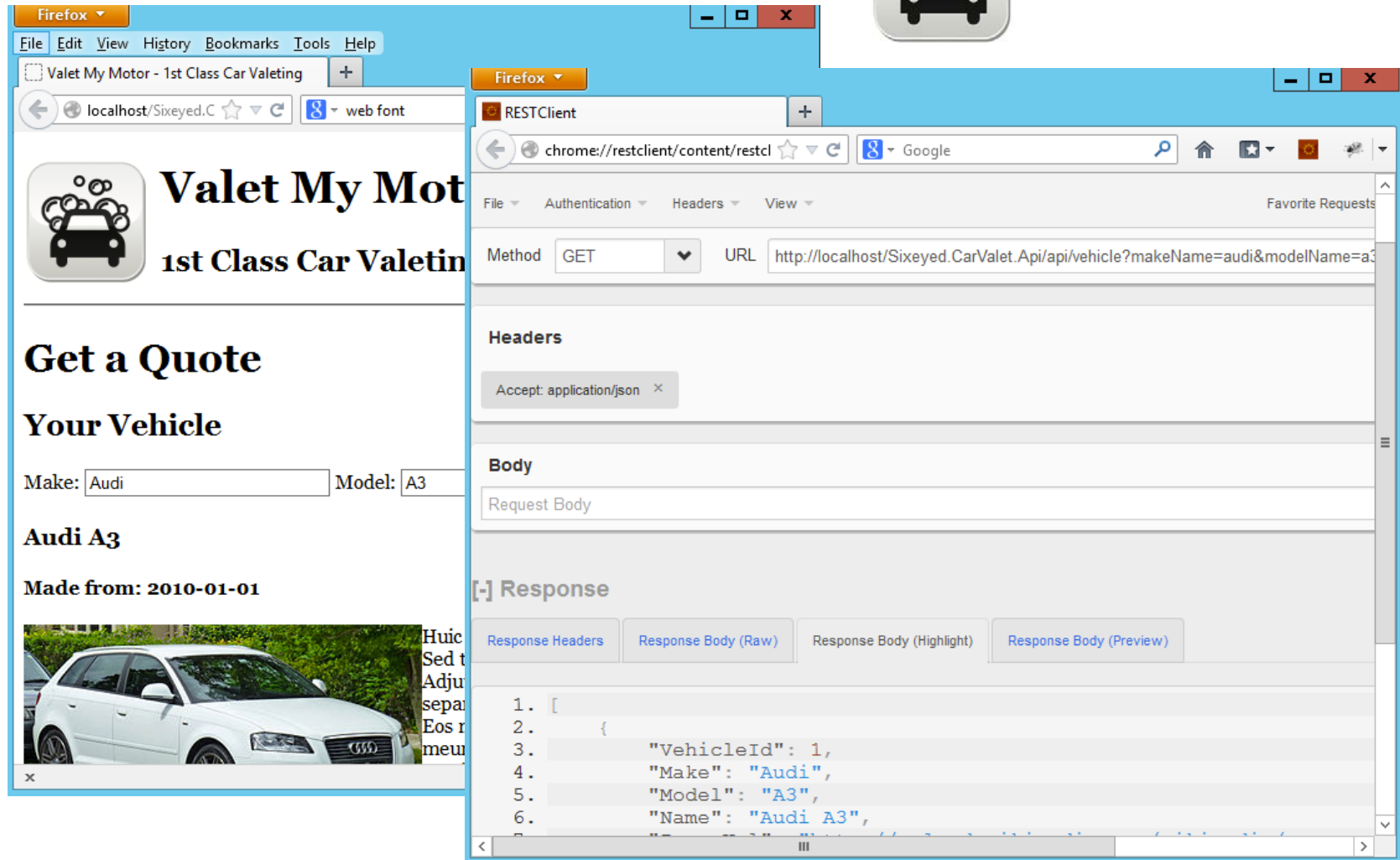
The Cost of Caching

- **Staleness**

The Complexity

Benefit	Cost
	Staleness
Speed	**Check for staleness**
Efficiency	**Refresh**

Course Structure

- **The Car Valeting Solution**

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