

# Introduction to .NET

Florin Olariu

“Alexandru Ioan Cuza”, University of Iași

Department of Computer Science

# Agenda

- ▶ CQRS
- ▶ Domain events - DDD
- ▶ Event Sourcing
- ▶ DEMO

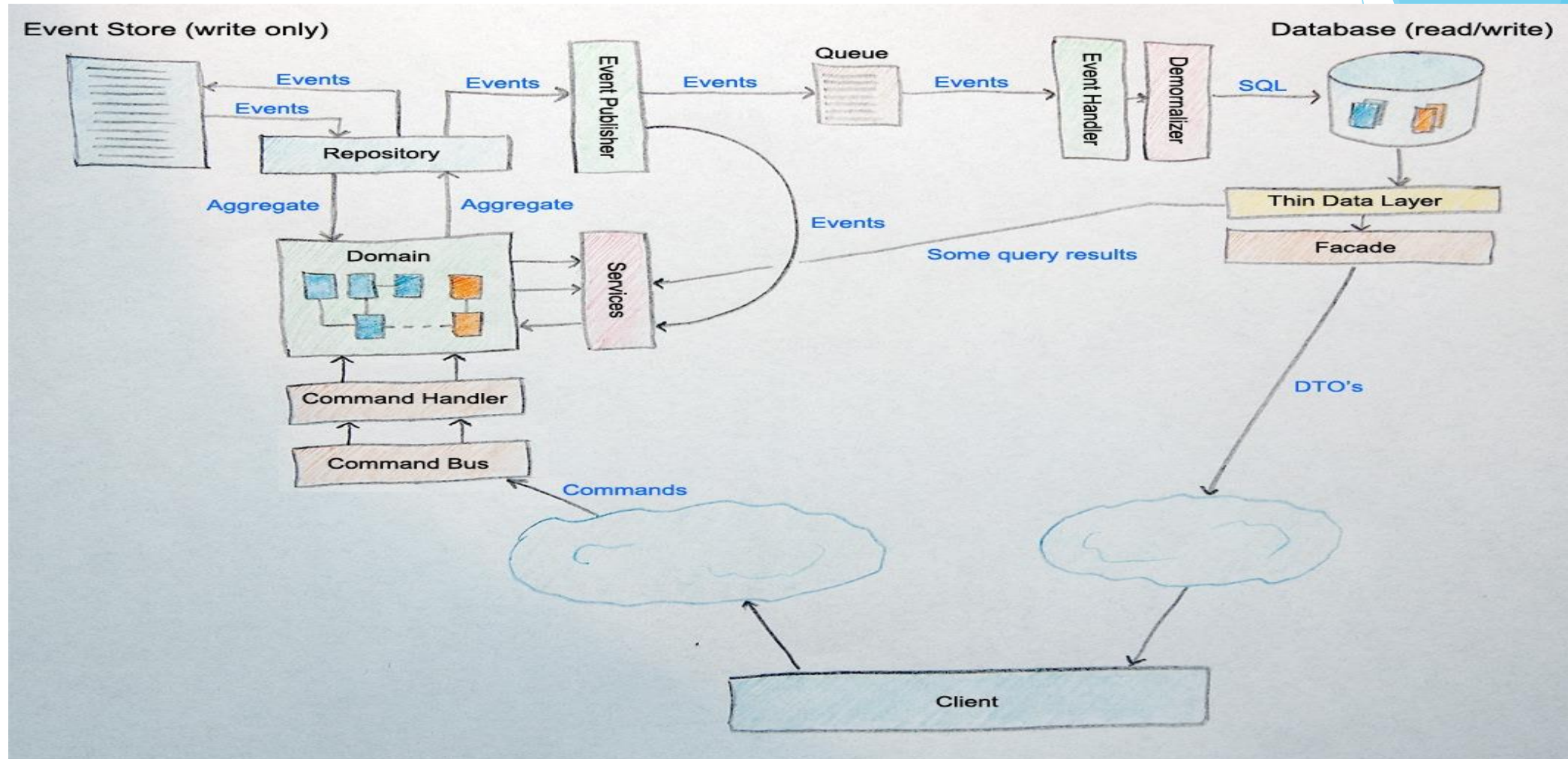
CQRS



# CQRS

- ▶ **Wikipedia** : Command Query Responsibility Segregation (CQRS) applies the CQS principle by using separate *Query* and *Command* objects to *retrieve* and *modify* data, respectively.

# CQRS



# Domain events - DDD

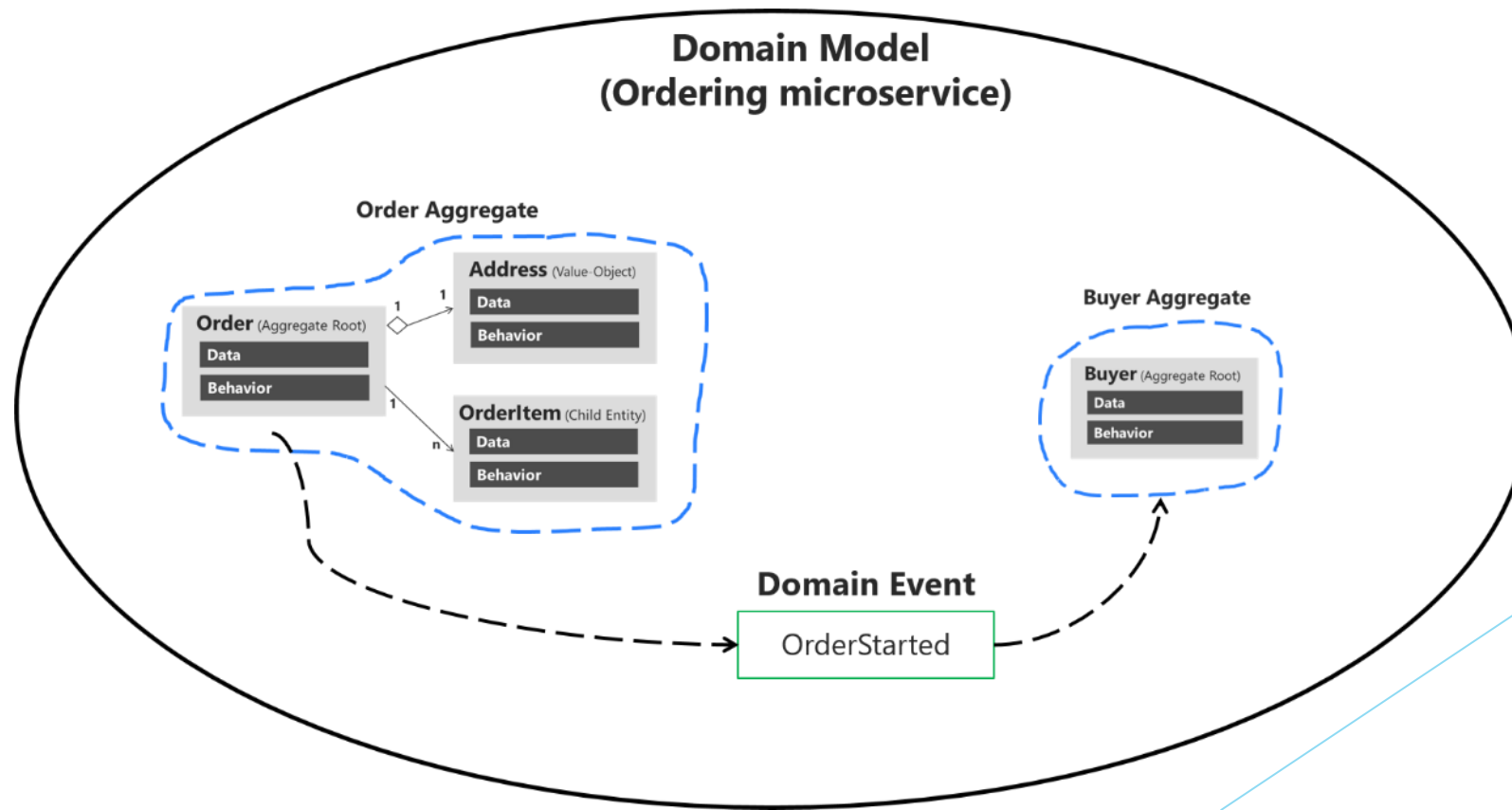


# Domain events - DDD

- ▶ “Domain events is a preferred way to trigger side effects across multiple aggregates within the same domain”

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# Domain events - DDD

- ▶ <http://www.tonytruong.net/domain-events-pattern-example/>
- ▶ <https://www.infoq.com/news/2015/09/domain-events-consistency>

# Event Sourcing



# Event Sourcing

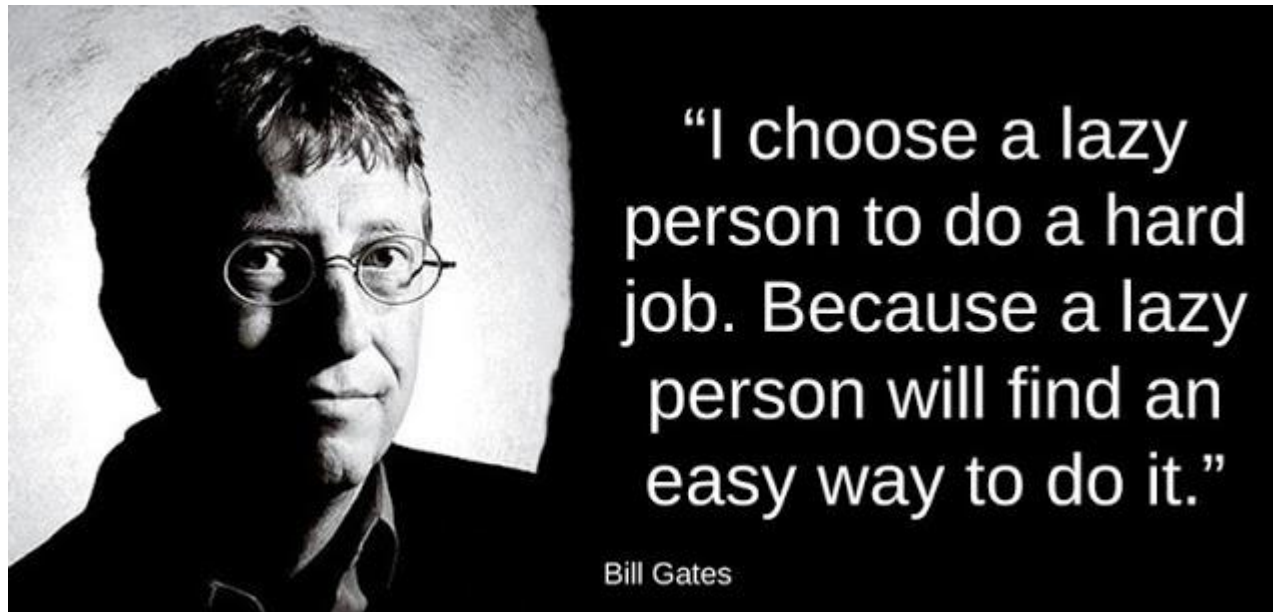
- ▶ “Event Sourcing ensures that all changes to application state are stored as a sequence of events.” - Martin Fowler - **Event Sourcing 2005**

# DEMO

- ▶ Full architecture - separation concerns, SOLID and Clean Code
  - Domain Driven Design - layers
  - Domain Events
  - Domain Notification
  - CQRS (Immediate Consistency)
  - Event Sourcing
  - Unit of Work

One more thing...

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# Bibliography

- ▶ Pluralsight
- ▶ <https://docs.microsoft.com/en-us/dotnet/standard/microservices-architecture/microservice-ddd-cqrs-patterns/domain-events-design-implementation>
- ▶ <https://martinfowler.com/eaDev/EventSourcing.html>
- ▶ [Martin Fowler: Microservices](#) - This article is robust, but, at the same time, not too wordy. It provides a great overview of Microservices
- ▶ [Microservices.io](#) -this site is aimed at documenting all of the various patterns that we use to architect Microservices.
- ▶ [Building Microservices by Sam Newman](#) - A really good book on the topic.

# Questions

- ▶ Do you have any other questions?



Thanks!

See you next time! 😊