AGILITÉ PAR LE CODE GRÂCE À **CQRS** ET **EVENTSOURCING**

WORKSHOP – #MIXIT15

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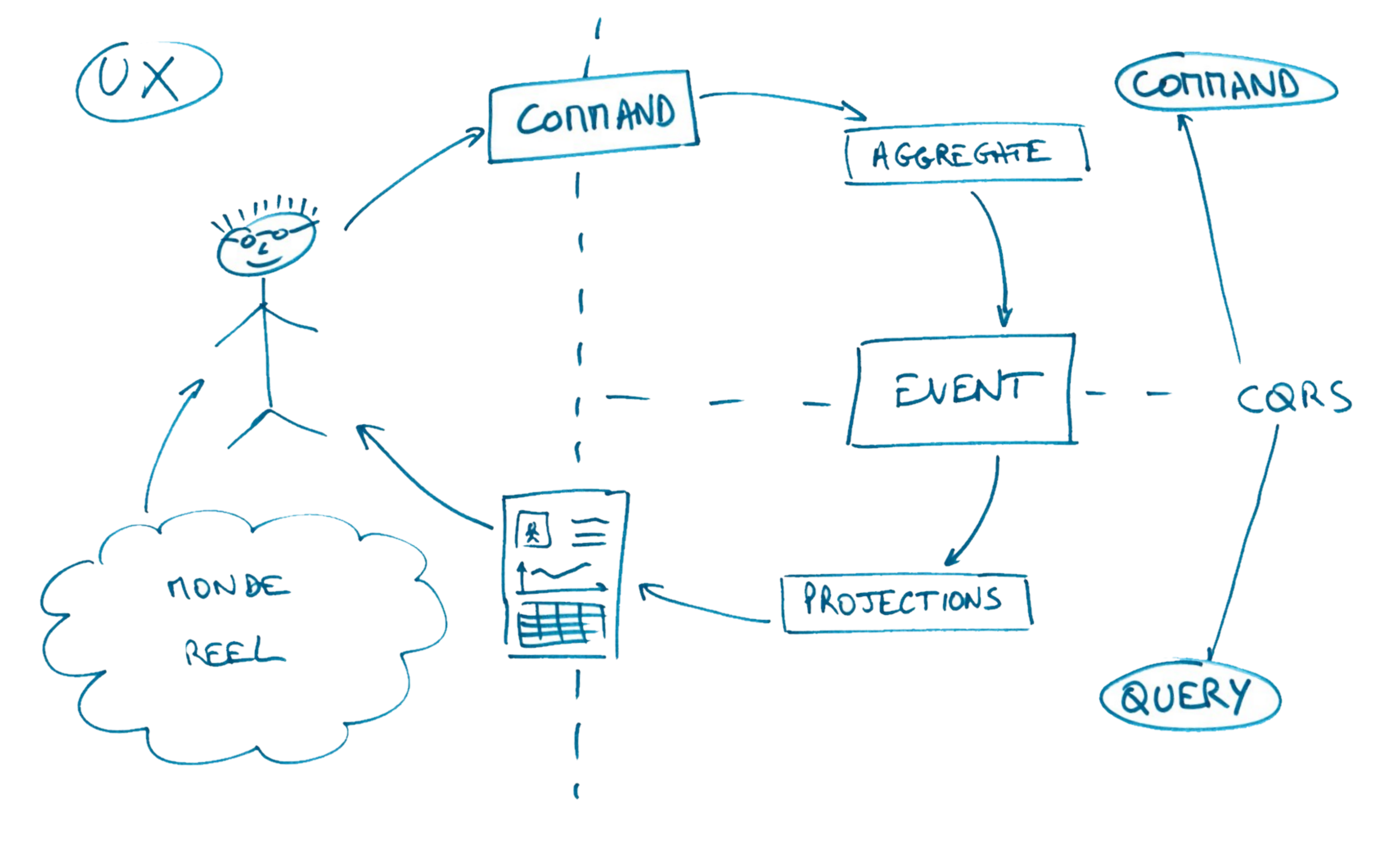
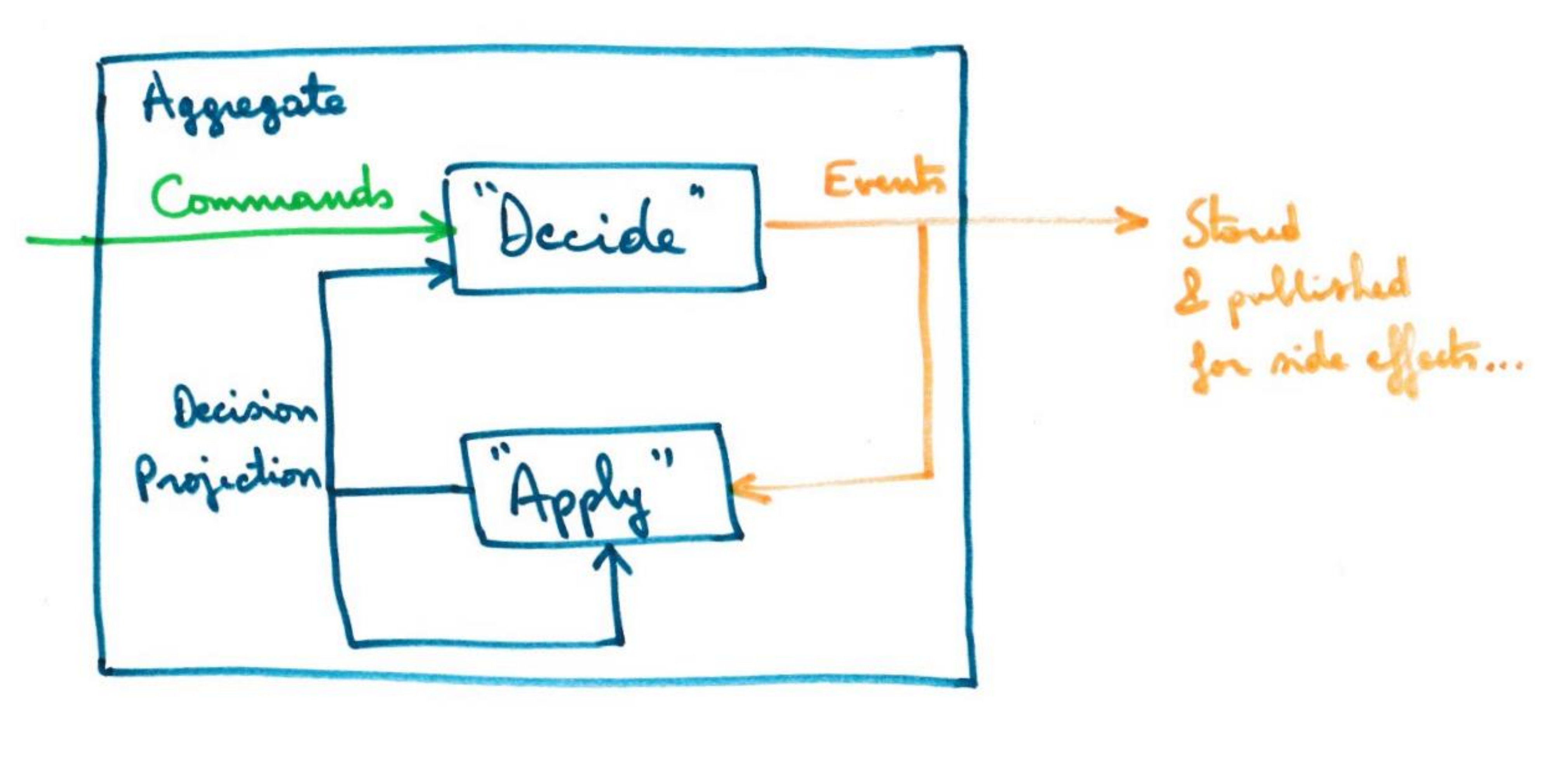
CQRS CONCEPT



Ref. "Conceptual CQRS" - Alberto Brandolini

EVENT SOURCING CONCEPT

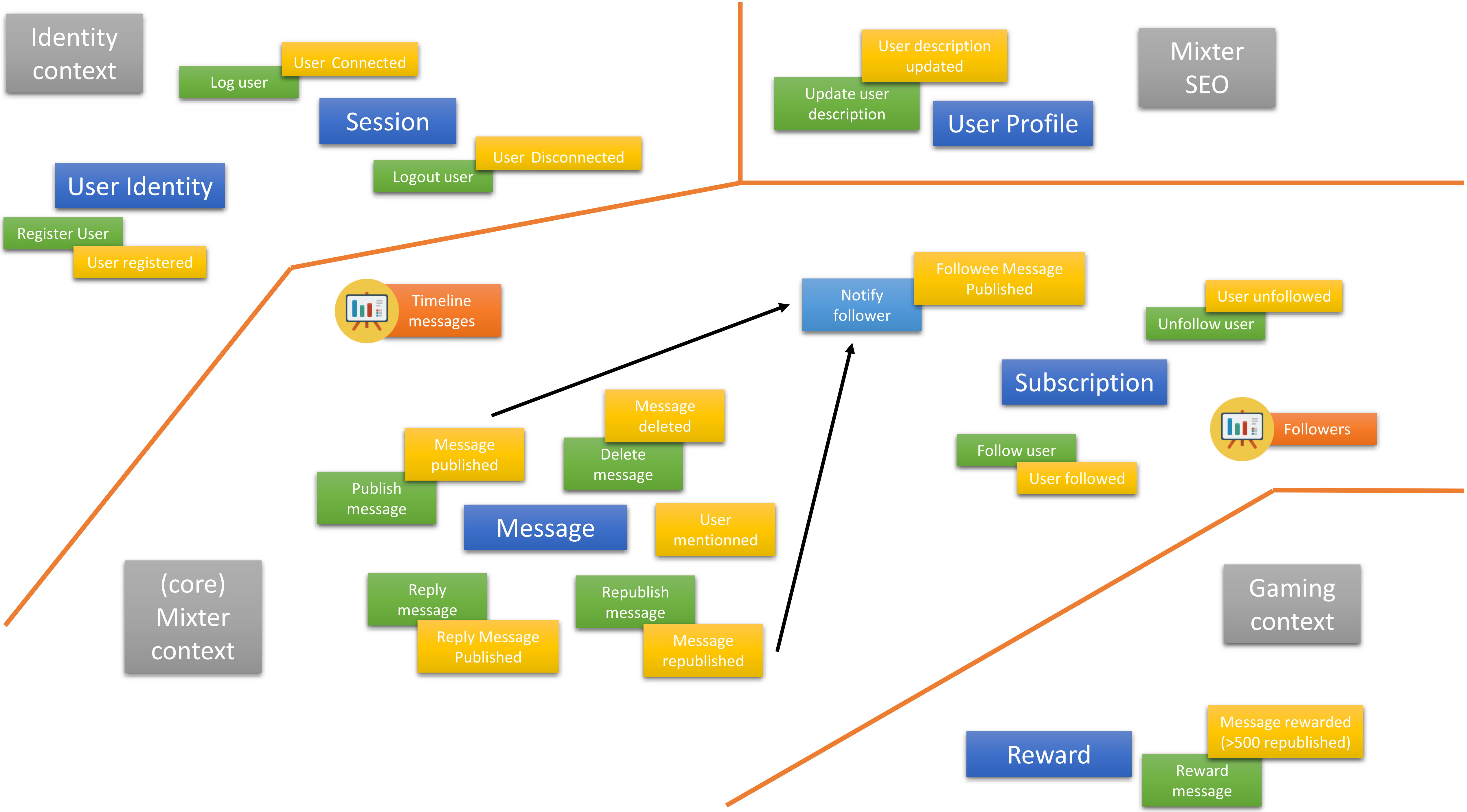


NB : DecisionProjection is also called State

Ref. Jérémie Chassaing

EVENT STORMING MIXTER

Ref. "Event Storming" - Alberto Brandolini



Identity context

Log user

User Connected

Session

Logout user

User Disconnected

User Identity

Register User

User registered

Update user description

User description updated

User Profile

Mixter SEO

Timeline messages

Publish message

Message published

Delete message

Message deleted

Message

User mentionned

Reply message

Reply Message Published

Republish message

Message republished

(core) Mixter context

Notify follower

Followee Message Published

Unfollow user

User unfollowed

Subscription

Followers

Follow user

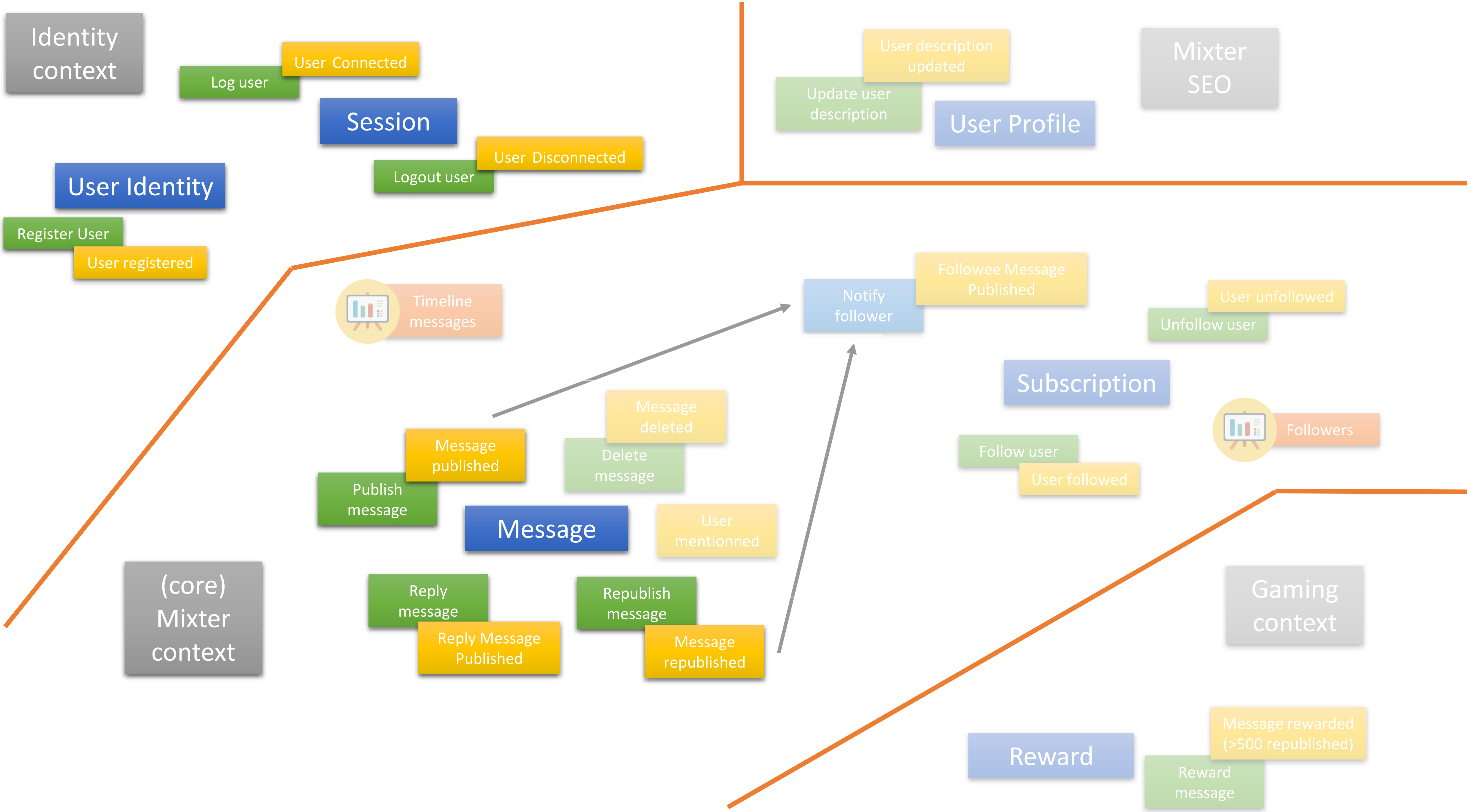
User followed

Gaming context

Reward

Reward message

Message rewarded (>500 republished)



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Notify follower

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Unfollow user

Subscription

Followers

Follow user

User followed

Message deleted

Delete message

Message published

Publish message

Message

User mentionned

(core) Mixter context

Reply message

Reply Message Published

Republish message

Message republished

Gaming context

Reward

Message rewarded (>500 republished)

Reward message

ONLY 1H30!

- IT'S SHORT !
- 4 FACILITATORS
  - ANY QUESTIONS => SIGNAL US

Clément

Emilien

Florent

Jean

TEST DRIVEN WORKSHOP

- WORKING IN PAIRS

- RED TEST => GREEN TEST
  - 1 GIT TAG BY TEST (COMMIT IF GREEN)

    => GIT MERGE [LANGUAGE]-X.Y WHERE X AND Y ARE INCREMENTED TO FOLLOW WORKSHOP (COMMIT YOUR PREVIOUS SOLUTION BEFORE MERGE !)
  - NB : THIS IS BASED ON 2 BRANCHES :
    - ONE WITH TEST ONLY (ONE BY COMMIT WITH TAG)
    - ONE WITH OUR SOLUTION (ONLY IF YOU ARE LATE)
- 3 STEPS (+2 BONUS)
  - COMMAND DELETEMESSAGE
  - QUERY TIMELINE MESSAGE
  - EVENTS IN AGGREGATE

REPOSITORY GIT

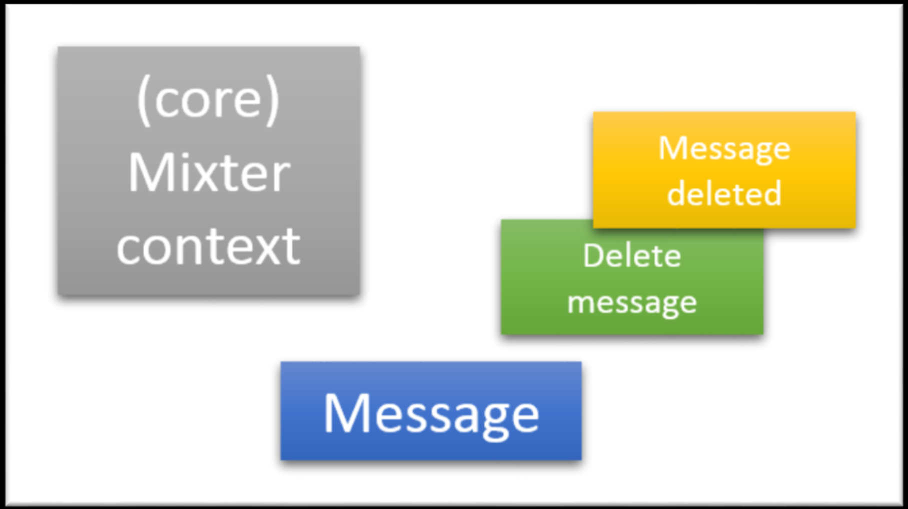
- GIT CLONE **HTTPS://GITHUB.COM/JEANTIL/MIXTER.GIT**
  - BRANCHES:
    - CSHARP-WORKSHOP (.NET 4.5.1, VS 2013)
    - JAVA-WORKSHOP (SDK8, MAVEN)
    - JS-WORKSHOP (NODE.JS)
    - PHP-WORKSHOP (5.5, COMPOSER)
- SLIDE : HTTPS://RAW.GITHUBUSERCONTENT.COM/JEANTIL/MIXTER/SLIDE/SLIDE.PDF

1. DELETE COMMAND

What we will learn

- publish events from aggregate,
- use projection for decision inside aggregate (contains only "state" for future decision, DO NOT keep all state like in an entity)
- Implement "business rules" that insure aggregate consistency (based on decision projection and command=method parameters)

In brief : the C of CQRS

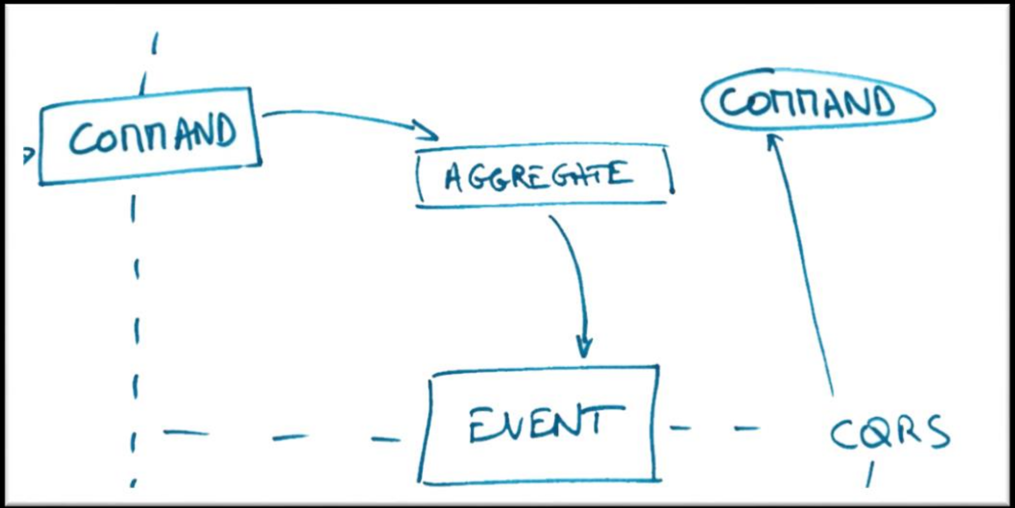


(core) Mixter context

Message deleted

Delete message

Message

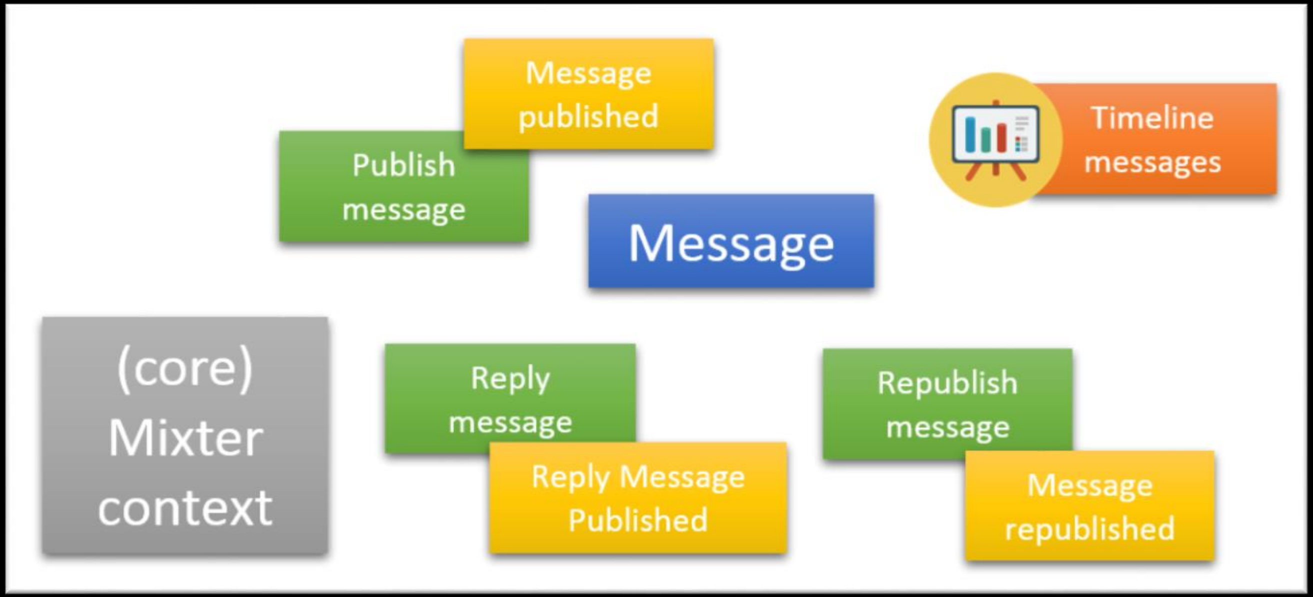


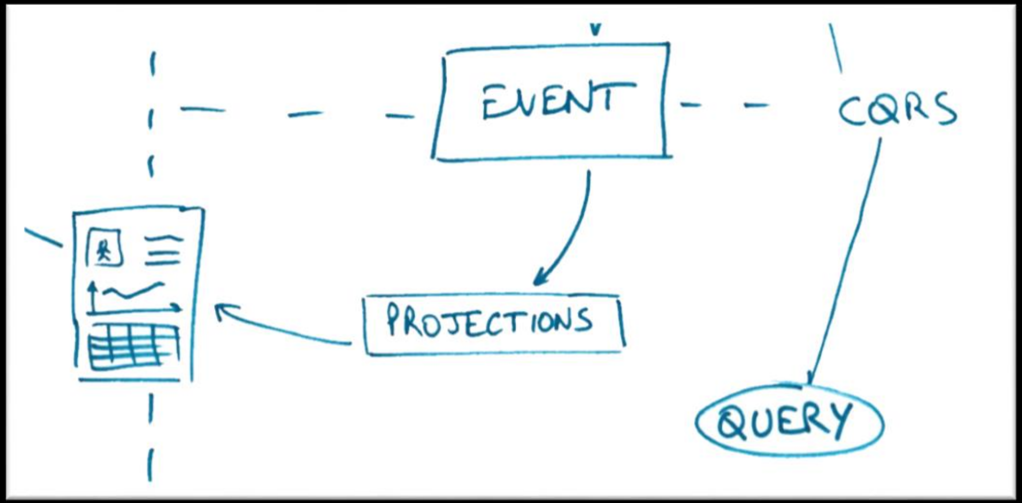
2. Timeline messages projection

What we will learn

- Create another model for Query (Projection, TimelineMessageProjection)
- Transform events in a projection model through an EventHandler
- A projection repository (in-memory) with its interface is given

In brief : Q of CQRS



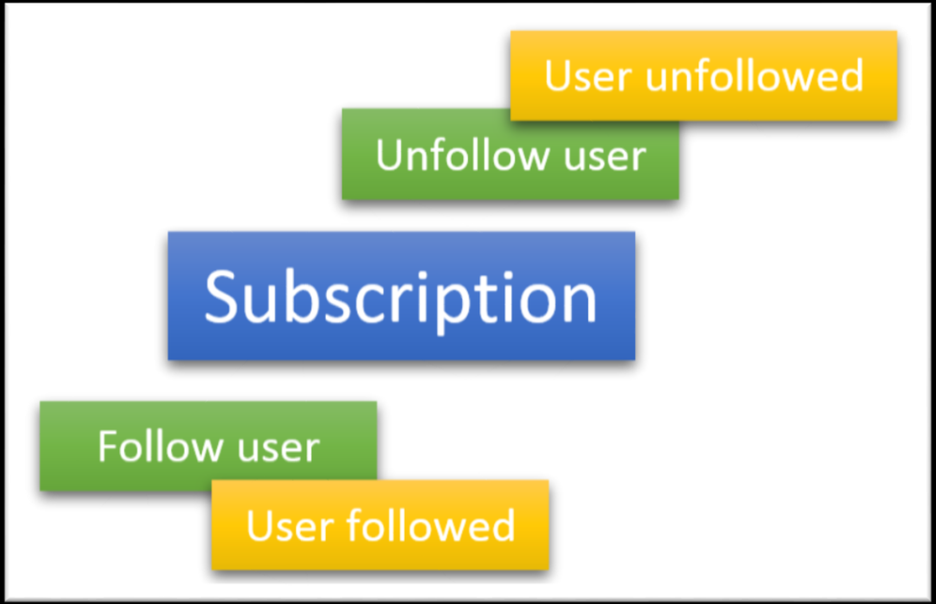


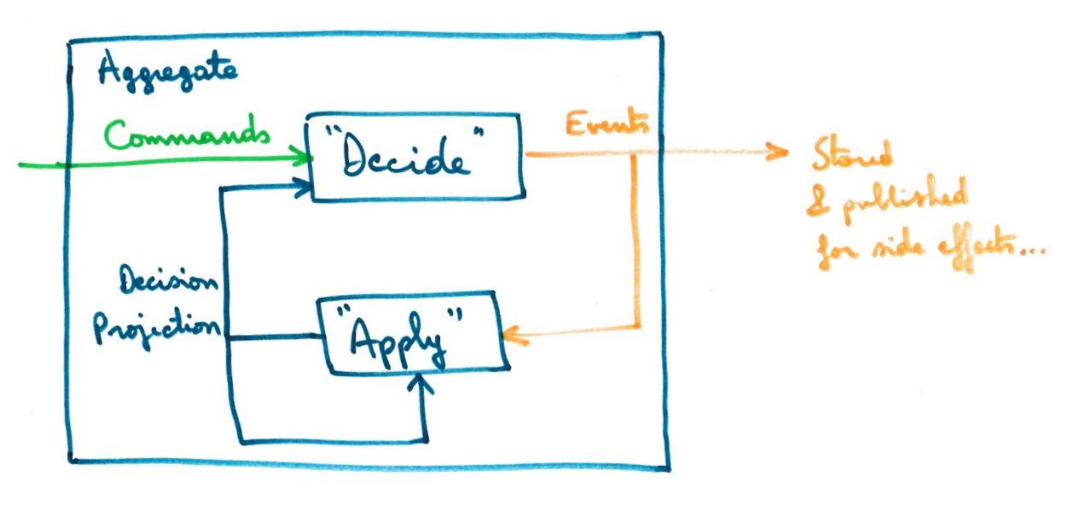
3. SUBSCRIPTION AGGREGATE

WHAT WE WILL LEARN

- CREATE A NEW AGGREGATE (SUBSCRIPTION)
- RAISE EVENTS FROM IT : USERFOLLOWED AND USERUNFOLLOWED
- CREATE A DECISION PROJECTION FOR IT
- IMPLEMENT REPLAY OF EVENTS (EVENT SOURCED AGGREGATE)

IN BRIEF : C OF CQRS + EVENT SOURCING



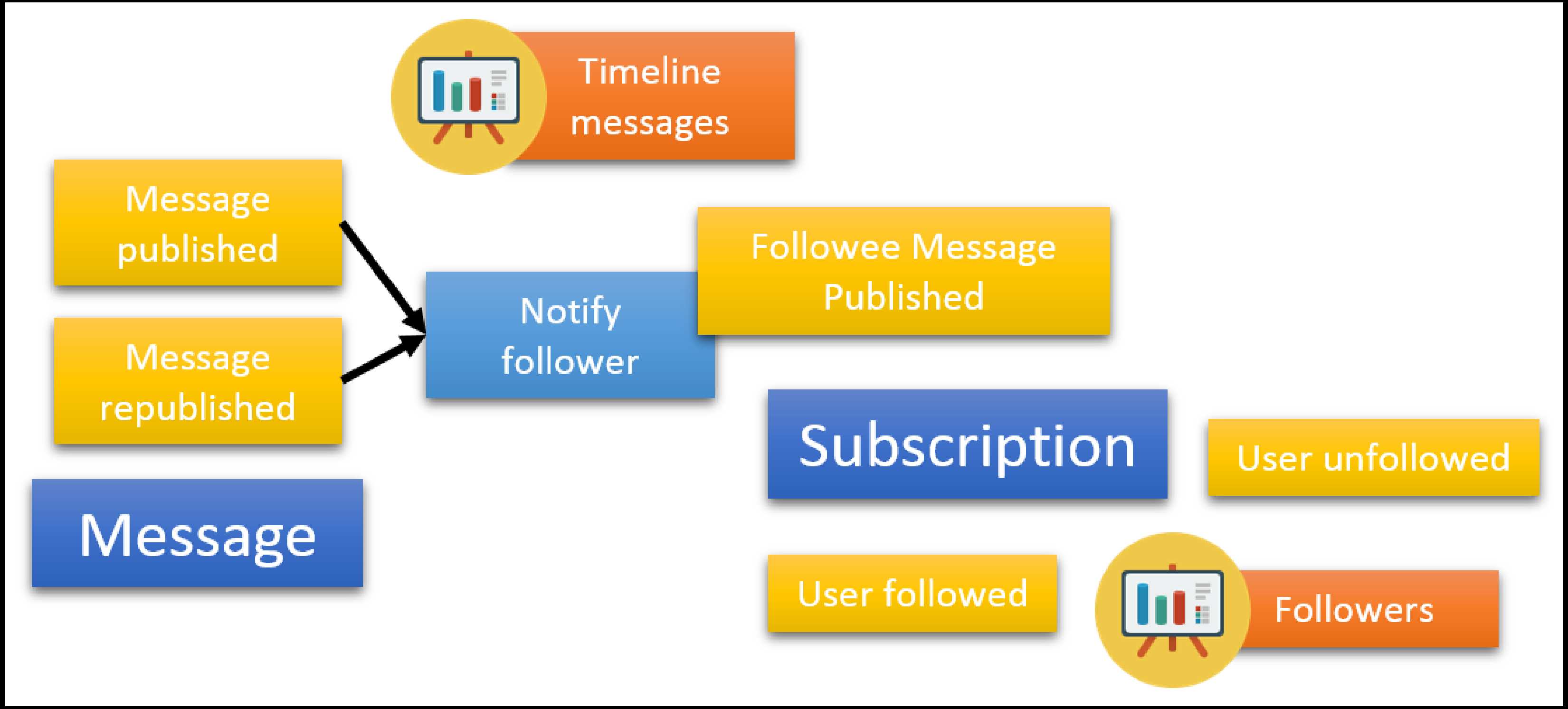


4. AGGREGATES INTERACTION

mix-IT

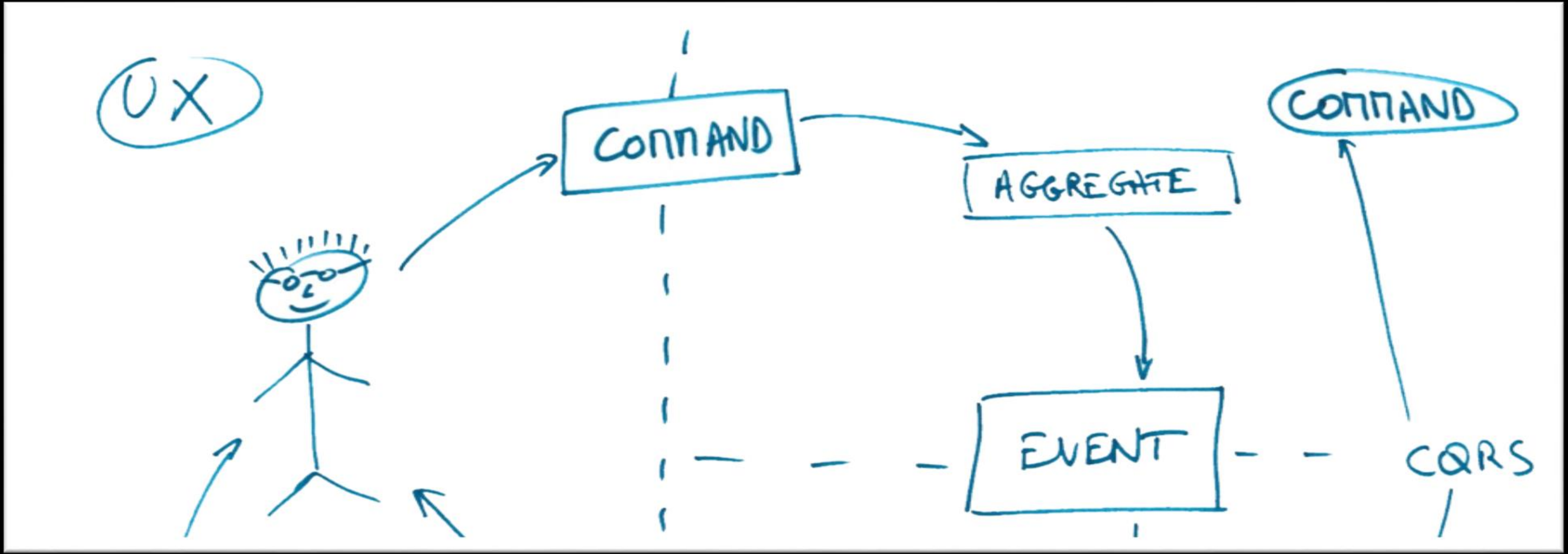
What we will learn

- Coordinate several aggregates to limit coupling
- Concept of " Eventual consistency"



5. COMMAND HANDLER

Request Rest to execute delete Message command, with session validity verification



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THANKS!

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