РАЗВОЈ СОФТВЕРА 2

Команде и упити

Command-Query Separation

Command

Does something

Should modify state

Should not return a value

Command-Query Separation

Command	Query
Does something	Answers a question
Should modify state	Should not modify state
Should not return a value	Always returns a value

Command-Query Separation

Command

Does something

Should modify state

Should not return a value *(ideally)*

Query

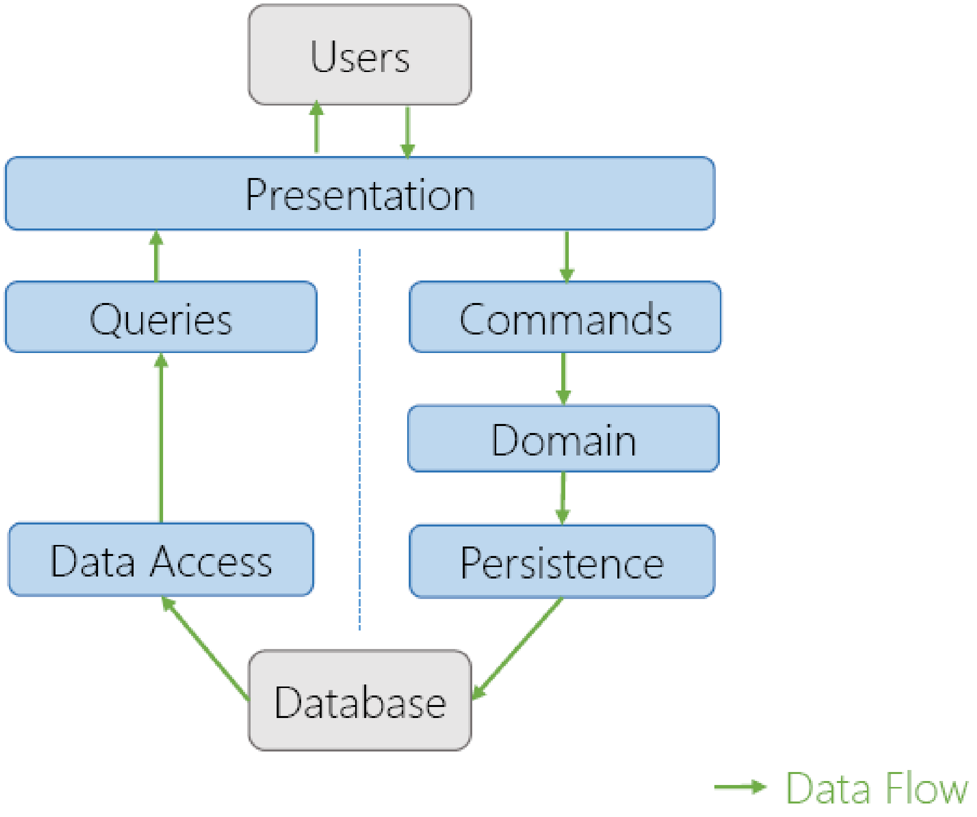
Answers a question

Should not modify state

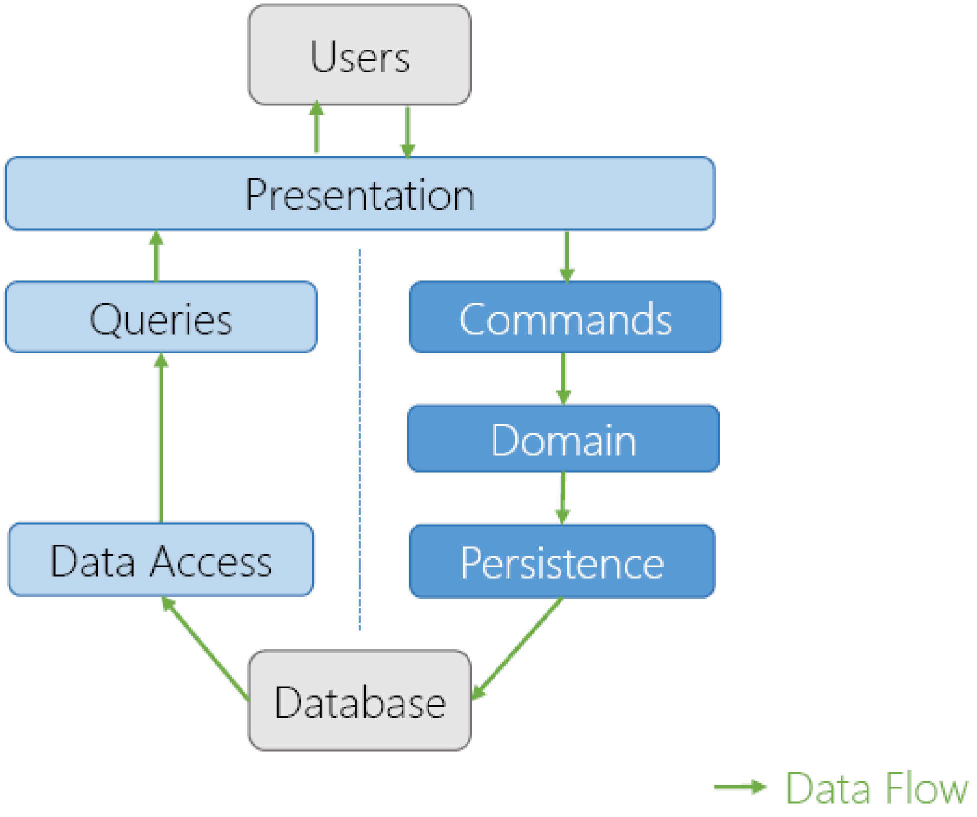
Always returns a value

Avoid mixing the two!

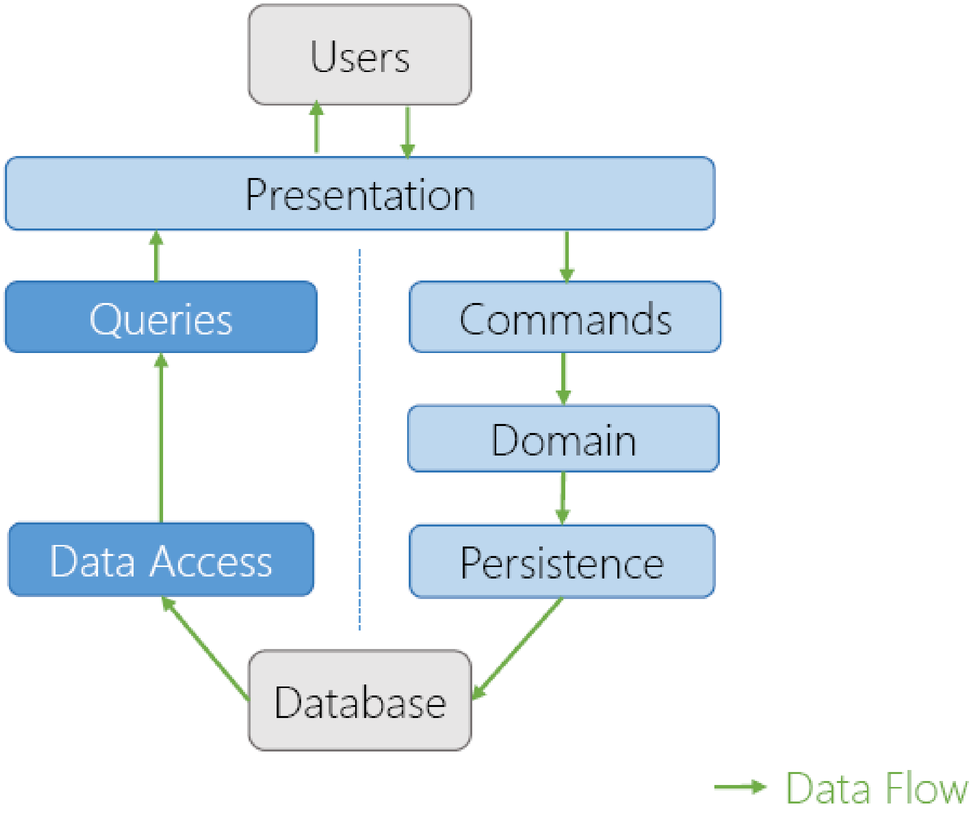
CQRS Architectures



CQRS Architectures

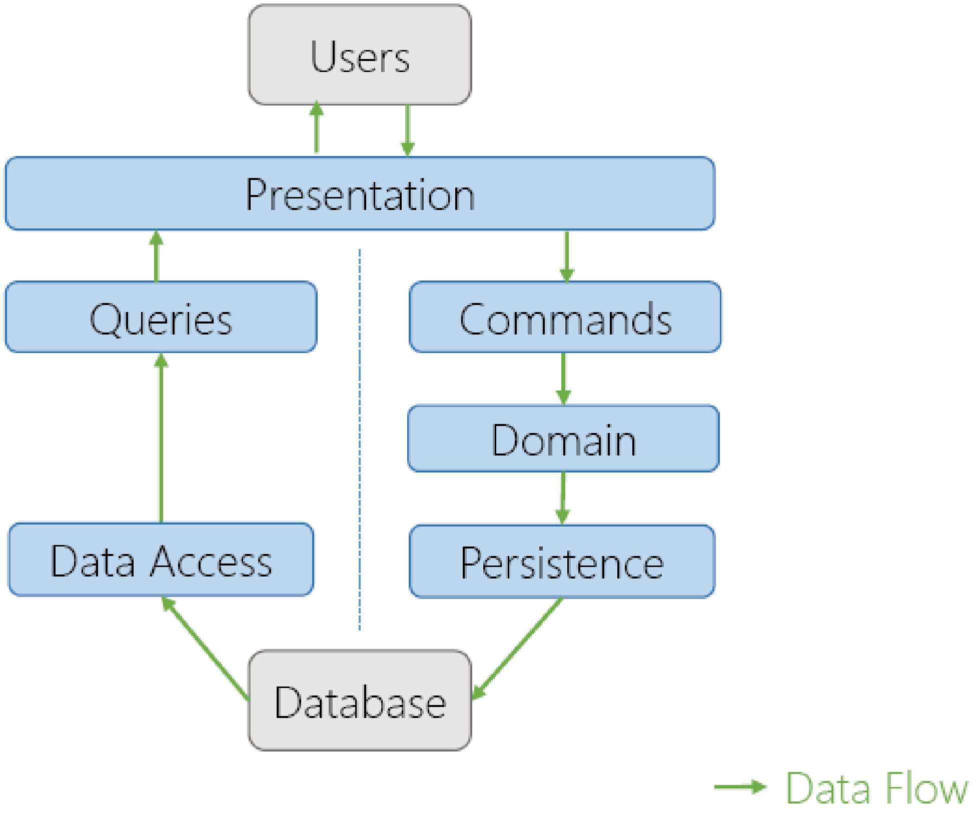


CQRS Architectures



ТИПОВИ АРХИТЕКТУРЕ СА РАЗДВАЈАЊЕМ КОМАНДИ И УПИТА

CQRS Type 1 – Single Database



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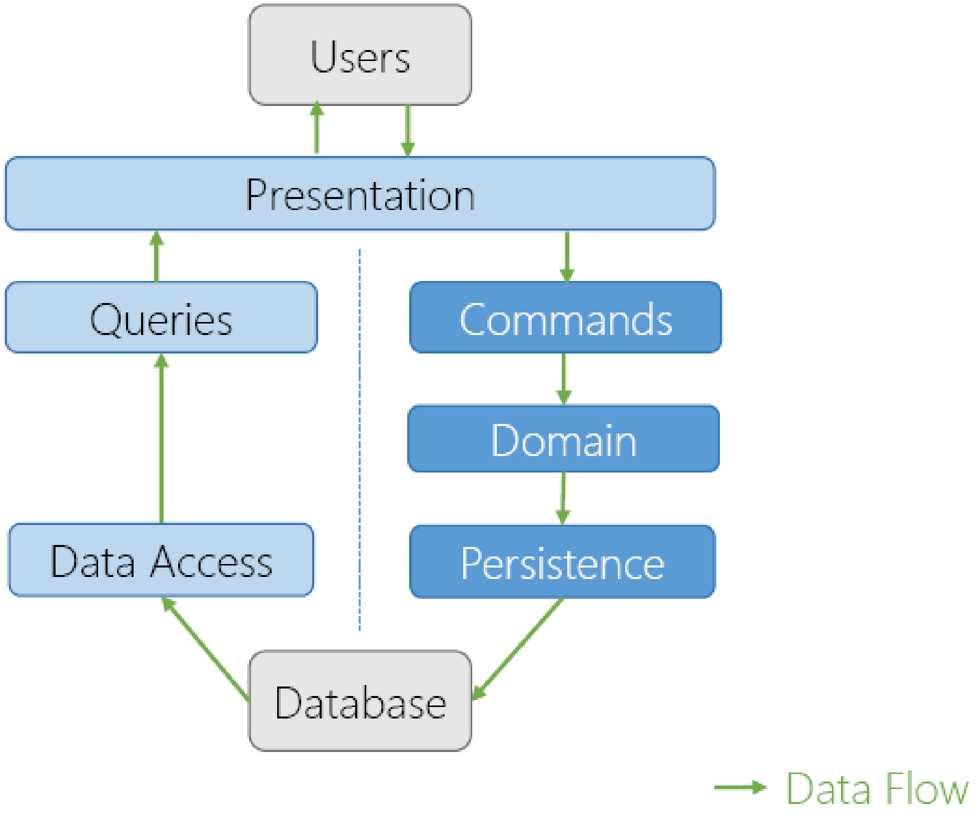
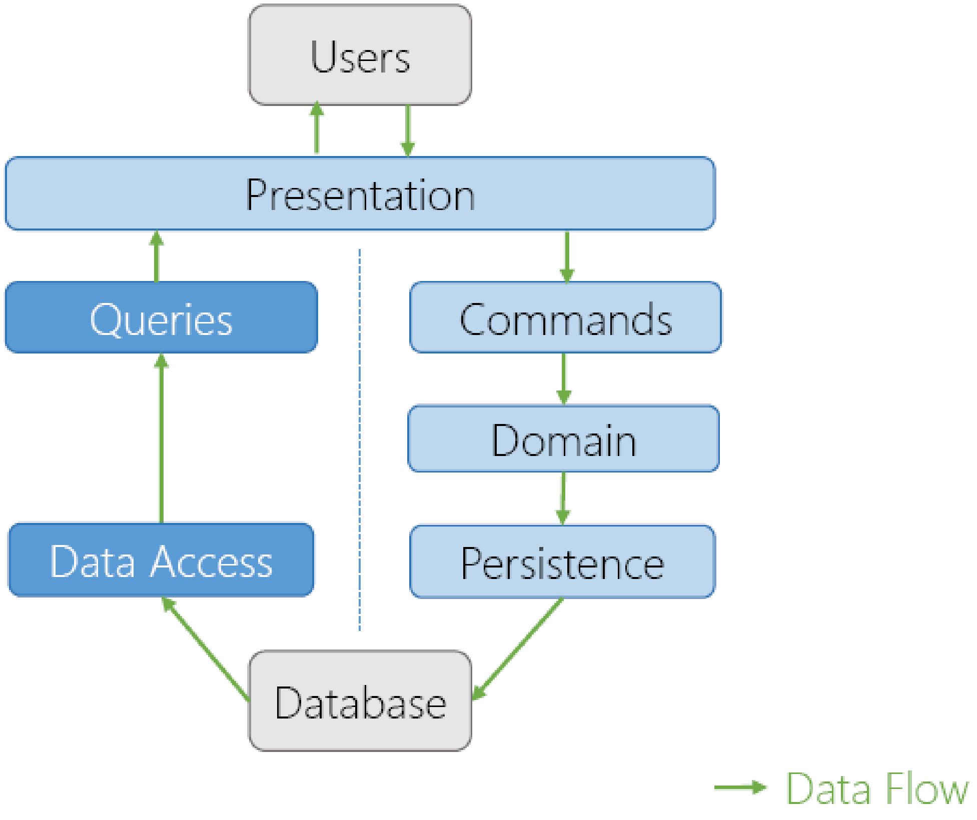
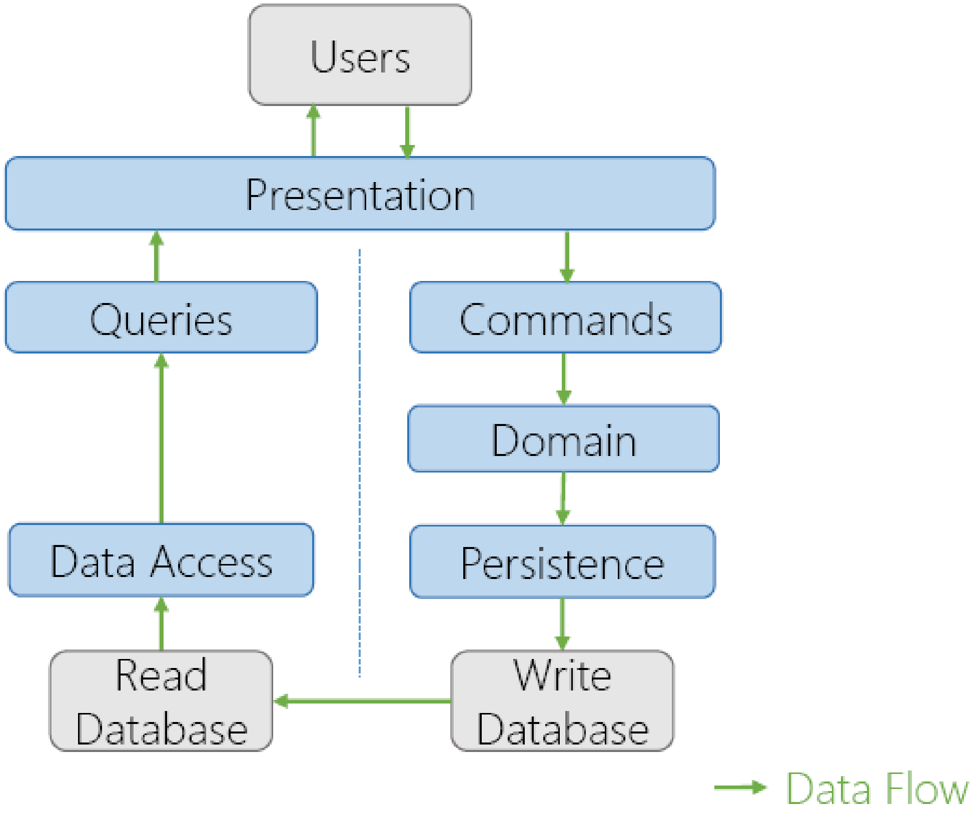


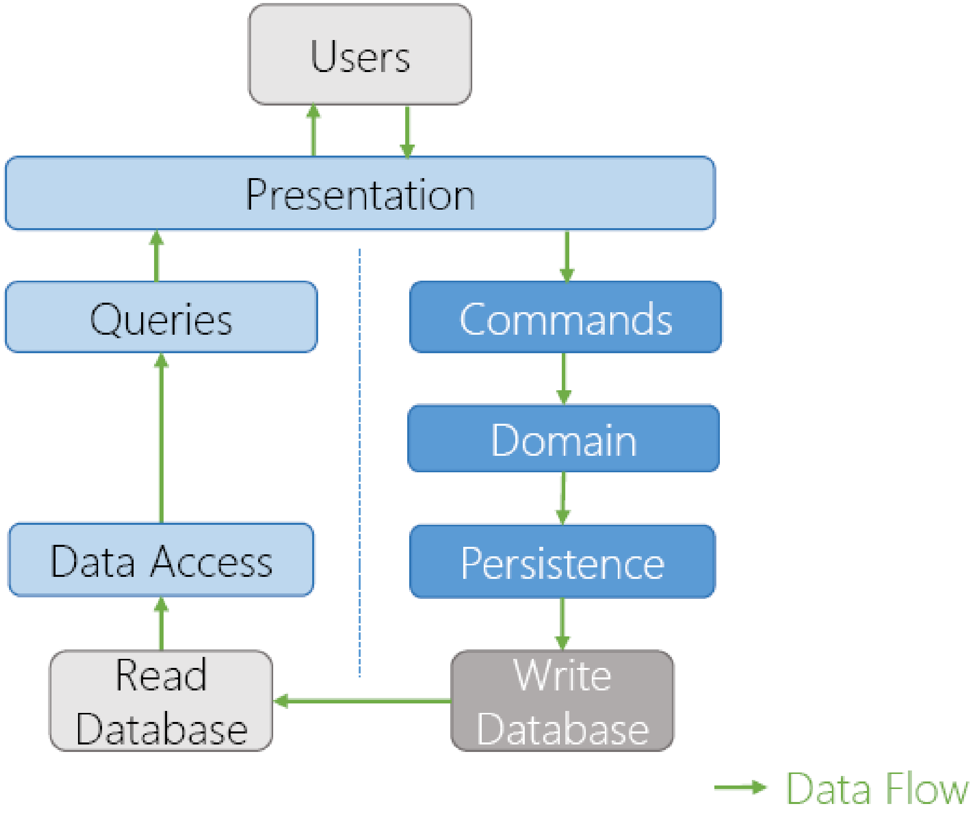
CQRS Type 1 – Single Database



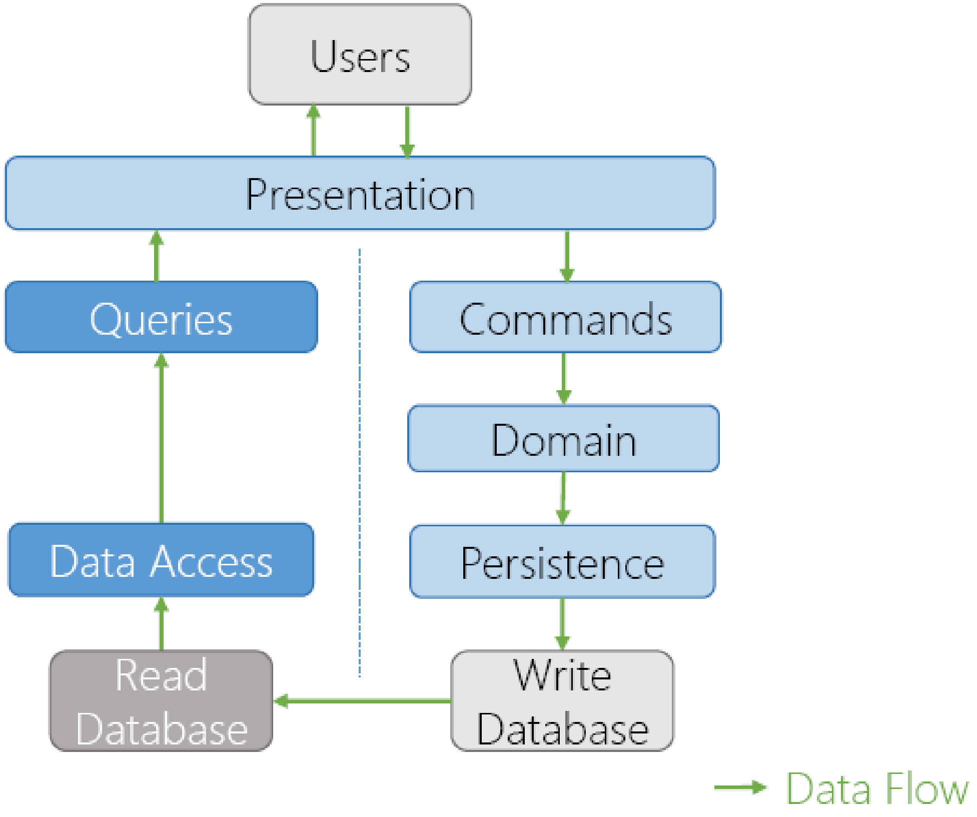
CQRS Type 2 – Read/Write Databases



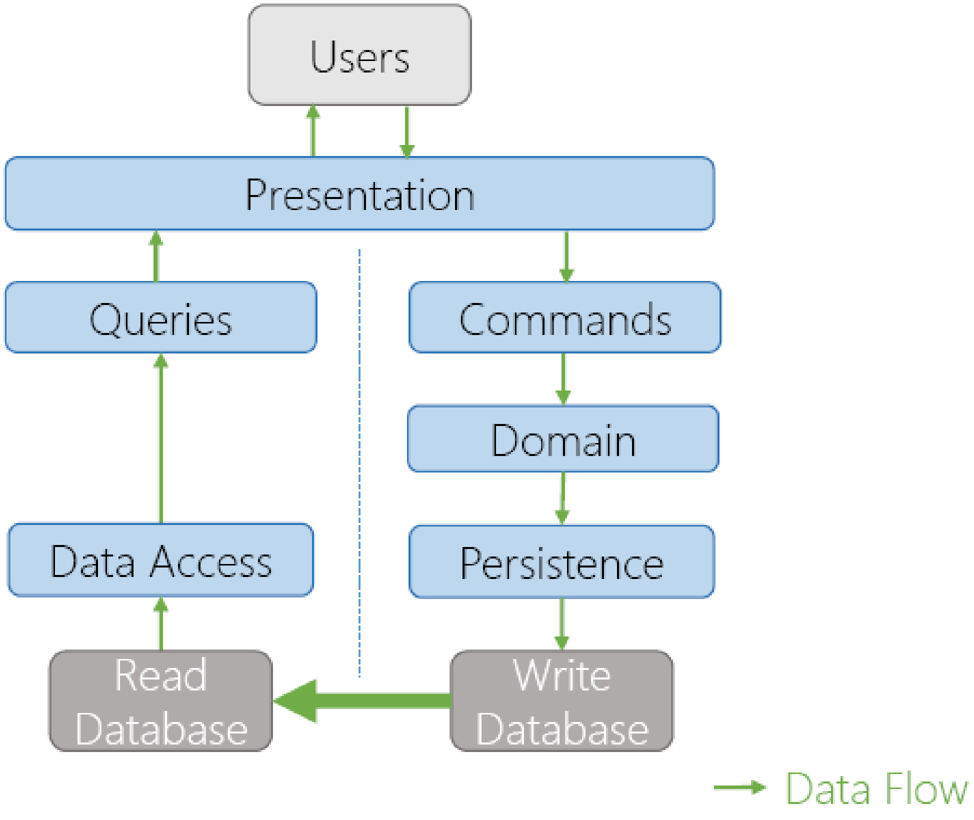
CQRS Type 2 – Read/Write Databases



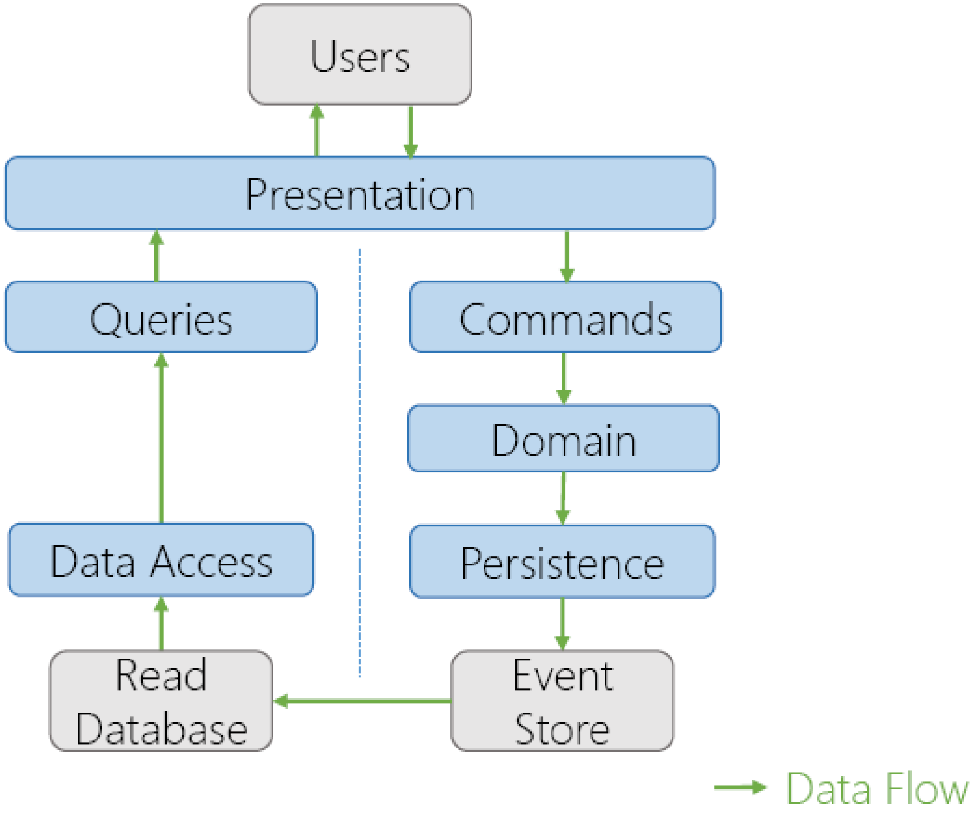
CQRS Type 2 – Read/Write Databases



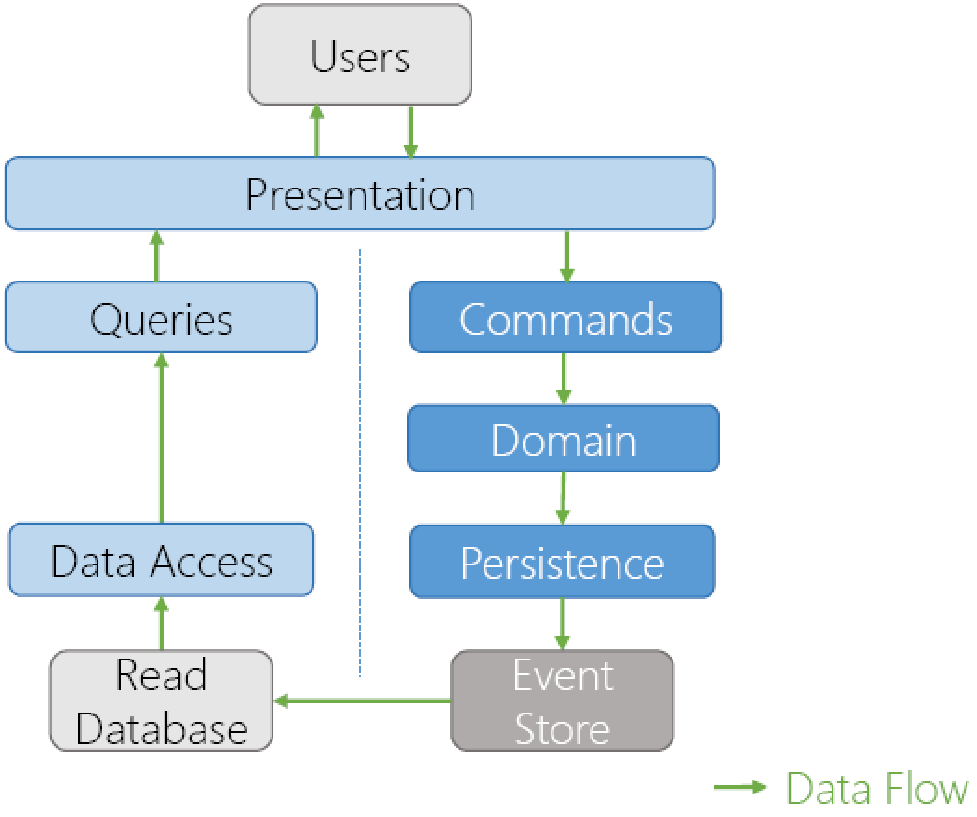
CQRS Type 2 – Read/Write Databases

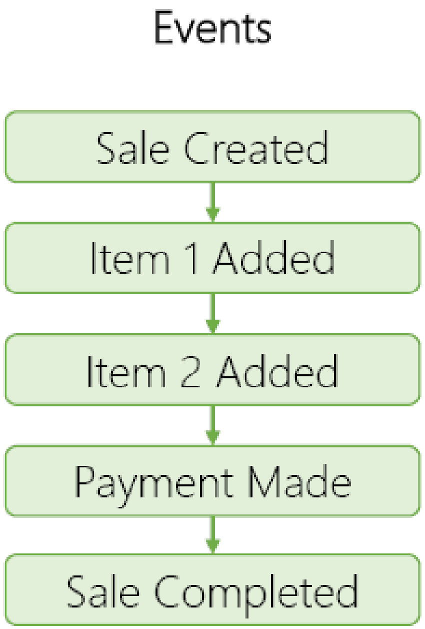


CQRS Type 3 – Event Sourcing

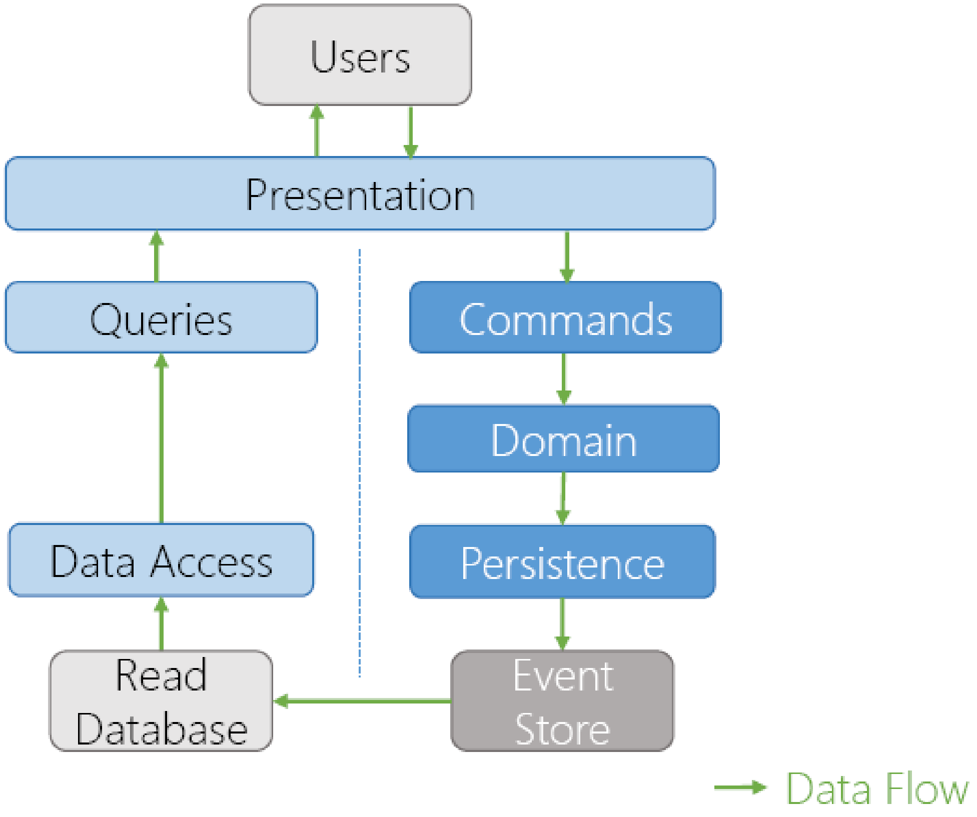


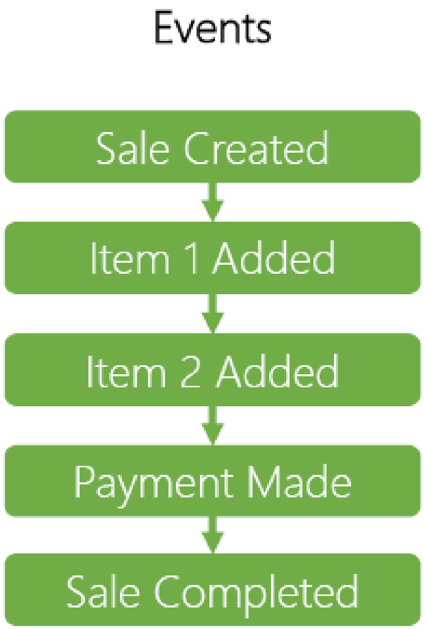
CQRS Type 3 – Event Sourcing





CQRS Type 3 – Event Sourcing





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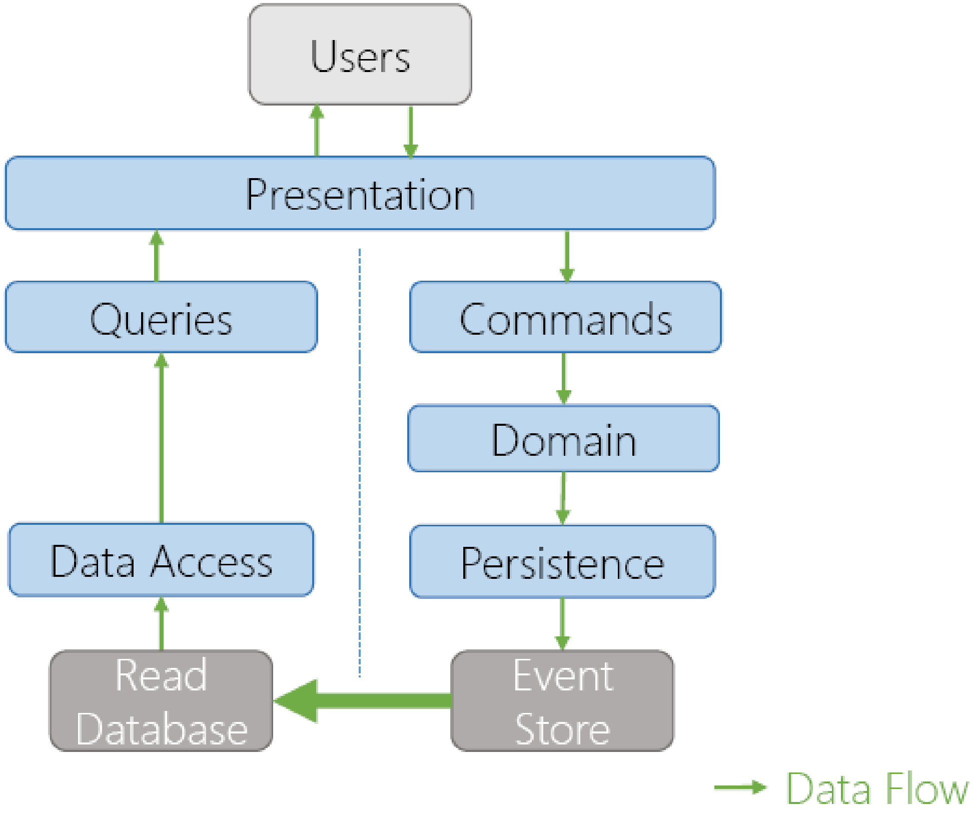


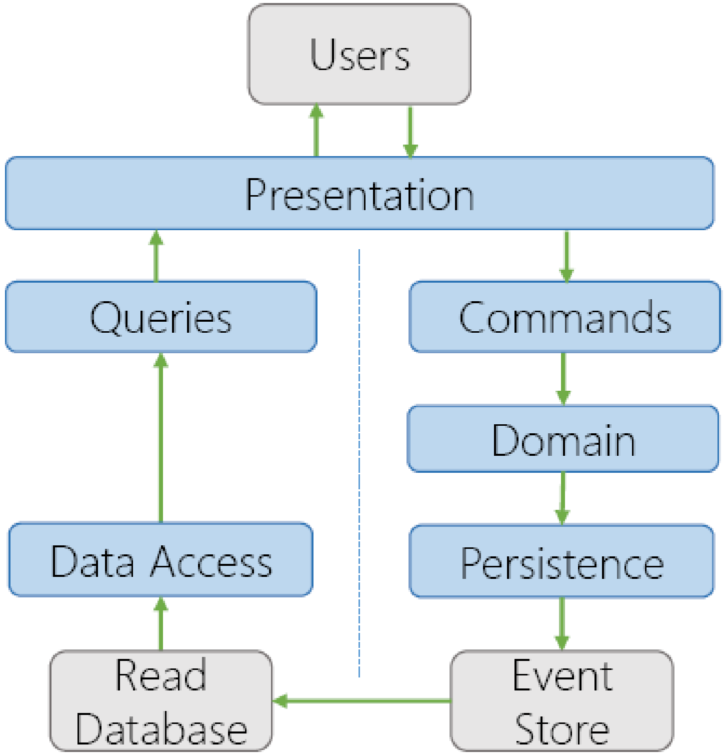
CQRS Type 3 – Event Sourcing

Complete audit trail

Point-in-time reconstruction

Replay events

Rebuild production database



ПРЕДНОСТИ И НЕДОСТАЦИ РАЗДВАЈАЊА КОМАНДИ И УПИТА

Why Use CQRS?

Pros

More efficient design

Simpler within each stack

Optimized performance

Why Use CQRS?

Pros

More efficient design

Simpler within each stack

Optimized performance

Cons

Inconsistent across stacks

Type 2 is more complex

Type 3 might be overkill