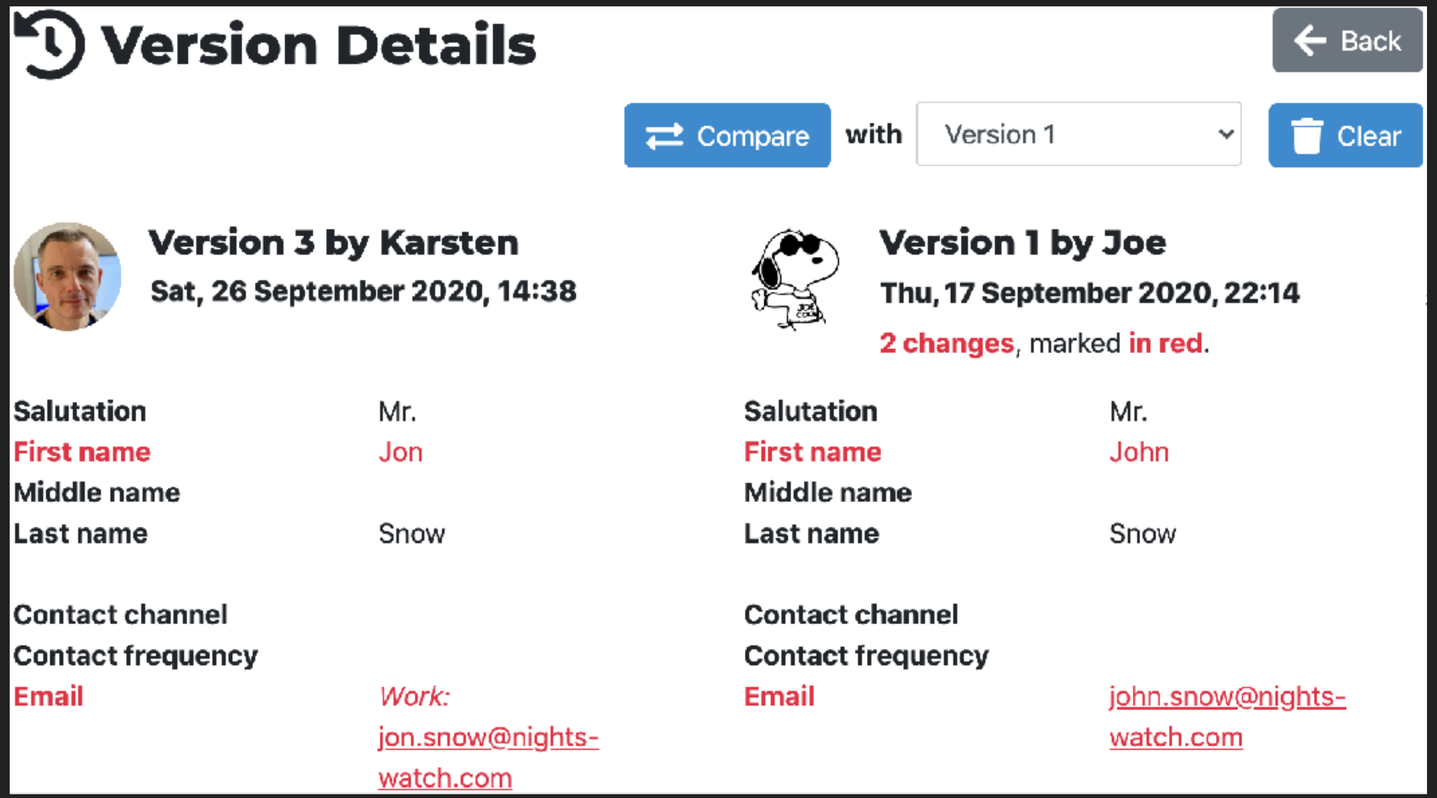
BETTER PROJECTS FASTER

event sponsored by RecWorks



KARSTEN SILZ, 2 OCTOBER 2020

JAVERS: EASY AUDIT LOGS IN JAVA

SLIDES

SAMPLE CODE

NEWSLETTER

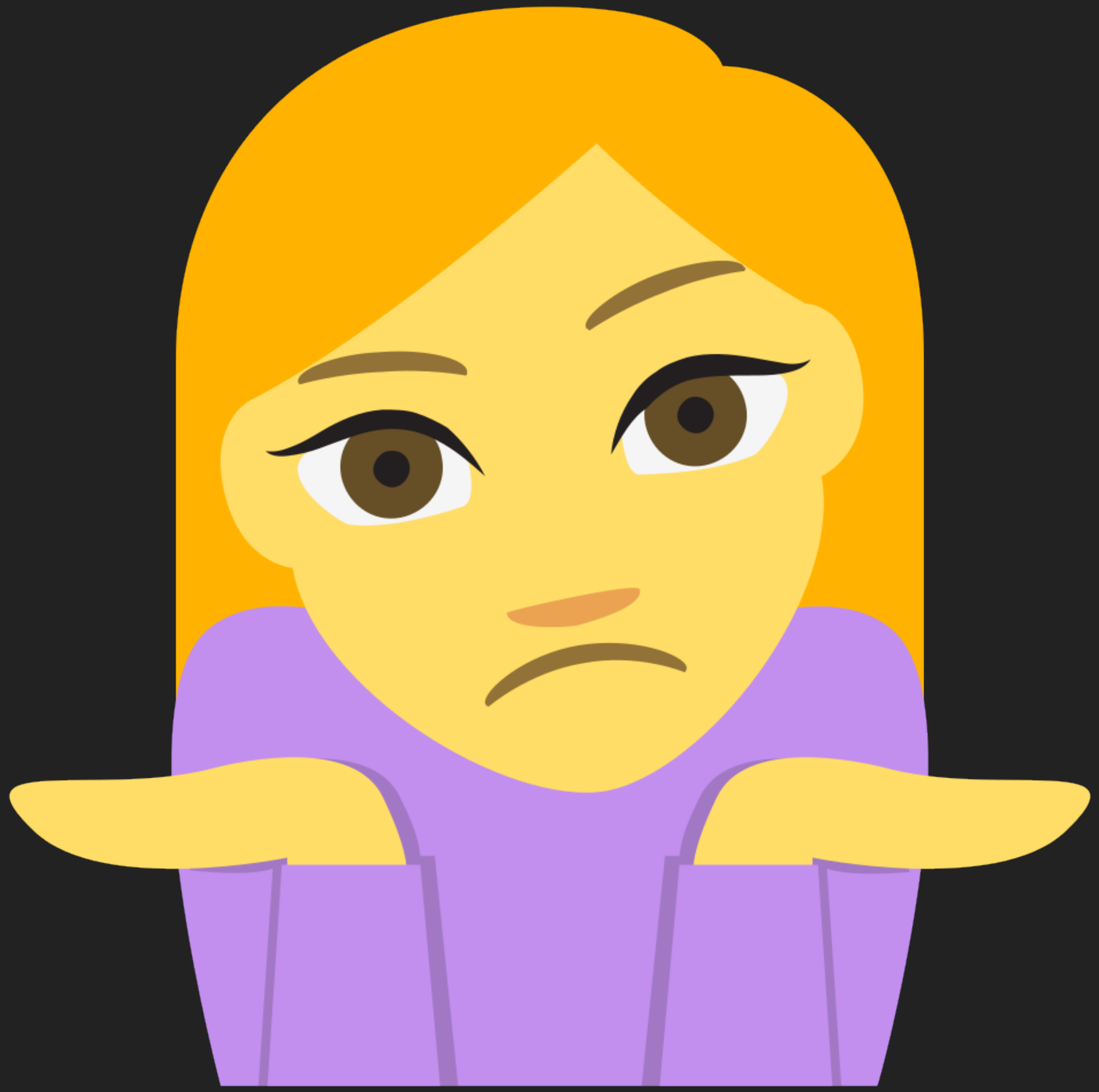
HTTPS://BPF.LI/CAT

SUFFERED FROM CHANGED DATA?

AUDIT LOG:
WHO CHANGED
WHAT WHEN HOW?

CUSTOMER: NO EMAIL

EMAIL ADDRESS: OK



AUDIT LOG

and the Quest for WHO CHANGED WHAT WHEN HOW

Version Details

Back

Compare with Version 1 Clear

Version 3 by Karsten

Sat, 26 September 2020, 14:38

Version 1 by Joe

Thu, 17 September 2020, 22:14

2 changes, marked **in red**.

Salutation	Mr.	**Salutation**	Mr.
First name	Jon	**First name**	John
Middle name		**Middle name**	
Last name	Snow	**Last name**	Snow
Contact channel		**Contact channel**	
Contact frequency		**Contact frequency**	
Email	*Work:* jon.snow@nights-watch.com	**Email**	john.snow@nights-watch.com

Version Details

Back

Clear

COMPARE 2 VERSIONS

Version 3 by Karsten

Sat, 26 September 2020, 14:38

Version 1 by Joe

Thu, 17 September 2020, 22:14

2 changes, marked **in red**.

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VERSION INFORMATION

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CUSTOMER DATA

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CHANGES BETWEEN VERSIONS

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CHANGES BETWEEN VERSIONS

WRONG!

NO EMAIL BECAUSE INITIAL EMAIL ADDRESS WRONG!

AUDIT LOGS IN JAVA?

FRONT-END

SHOW ALL VERSIONS

SHOW ONE VERSION

COMPARE 2 VERSIONS

JAVA BACK-END

CREATE VERSION

QUERY VERSIONS

COMPARE 2 VERSIONS

HARD!

JAVERS

EASY AUDIT LOGS IN JAVA

JAVERS

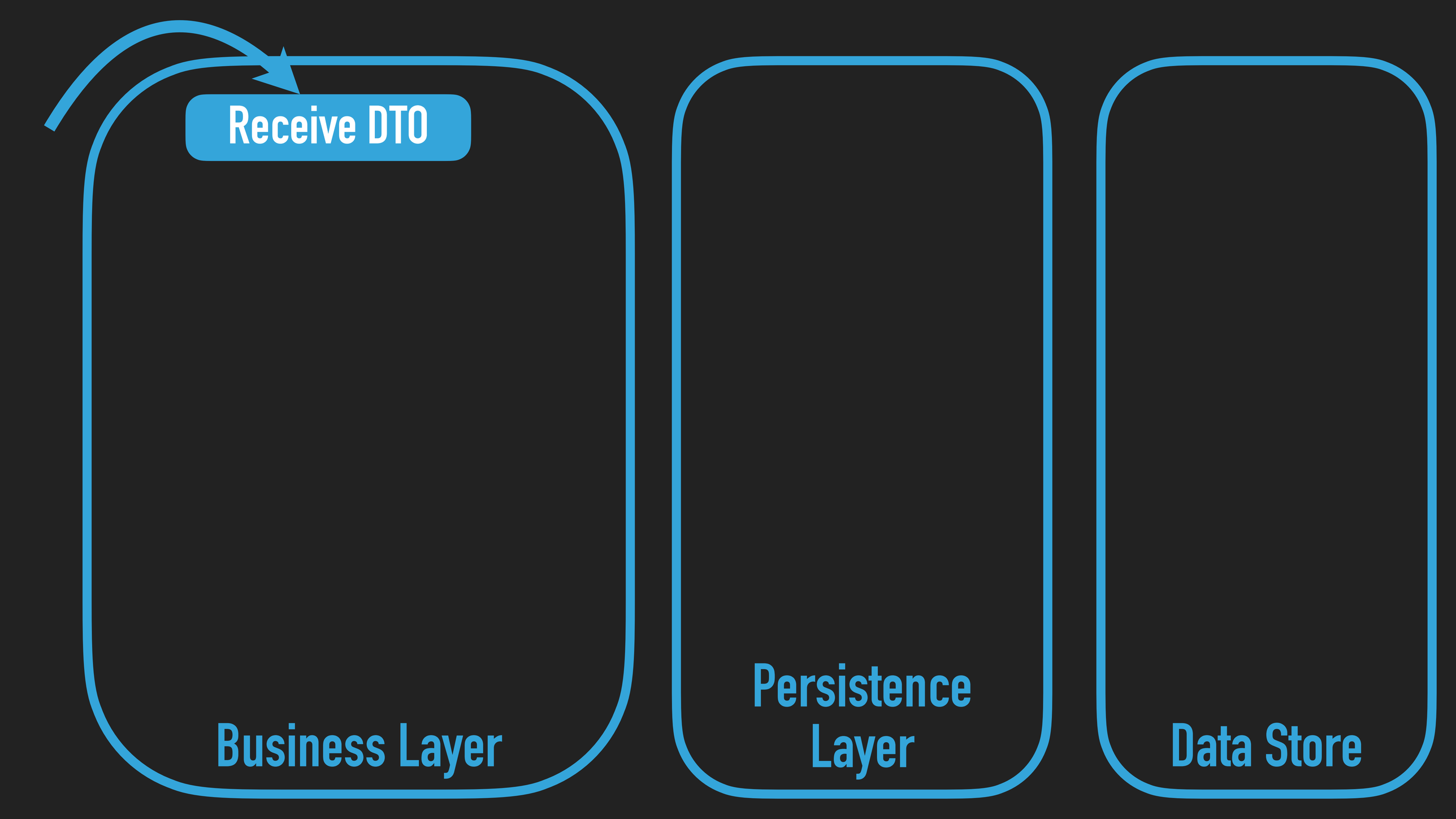
Open-source project with Apache license

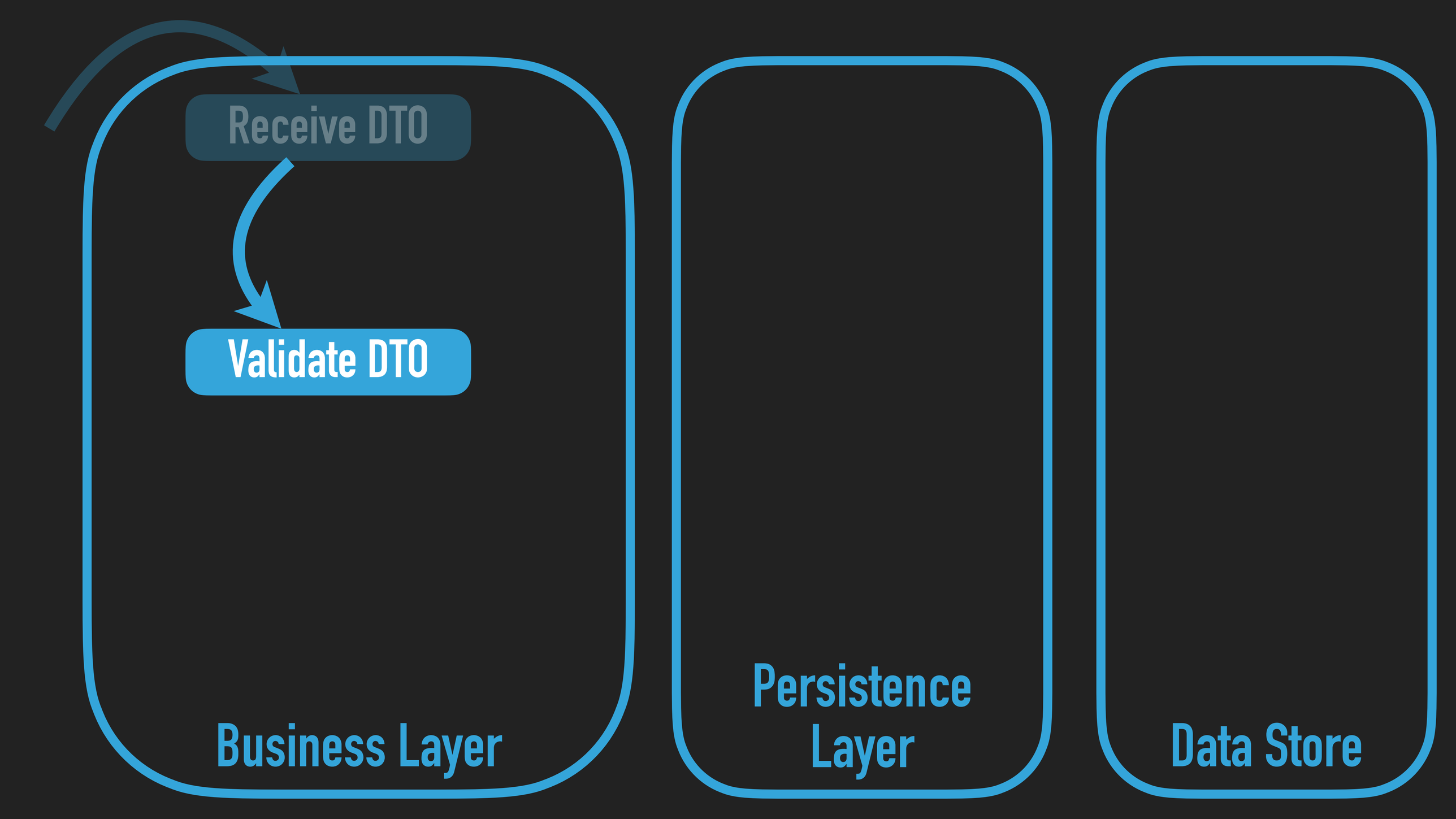
Create Version: Explicitly saves POJO graph as JSON in 4 fixed DB tables (relational or MongoDB)

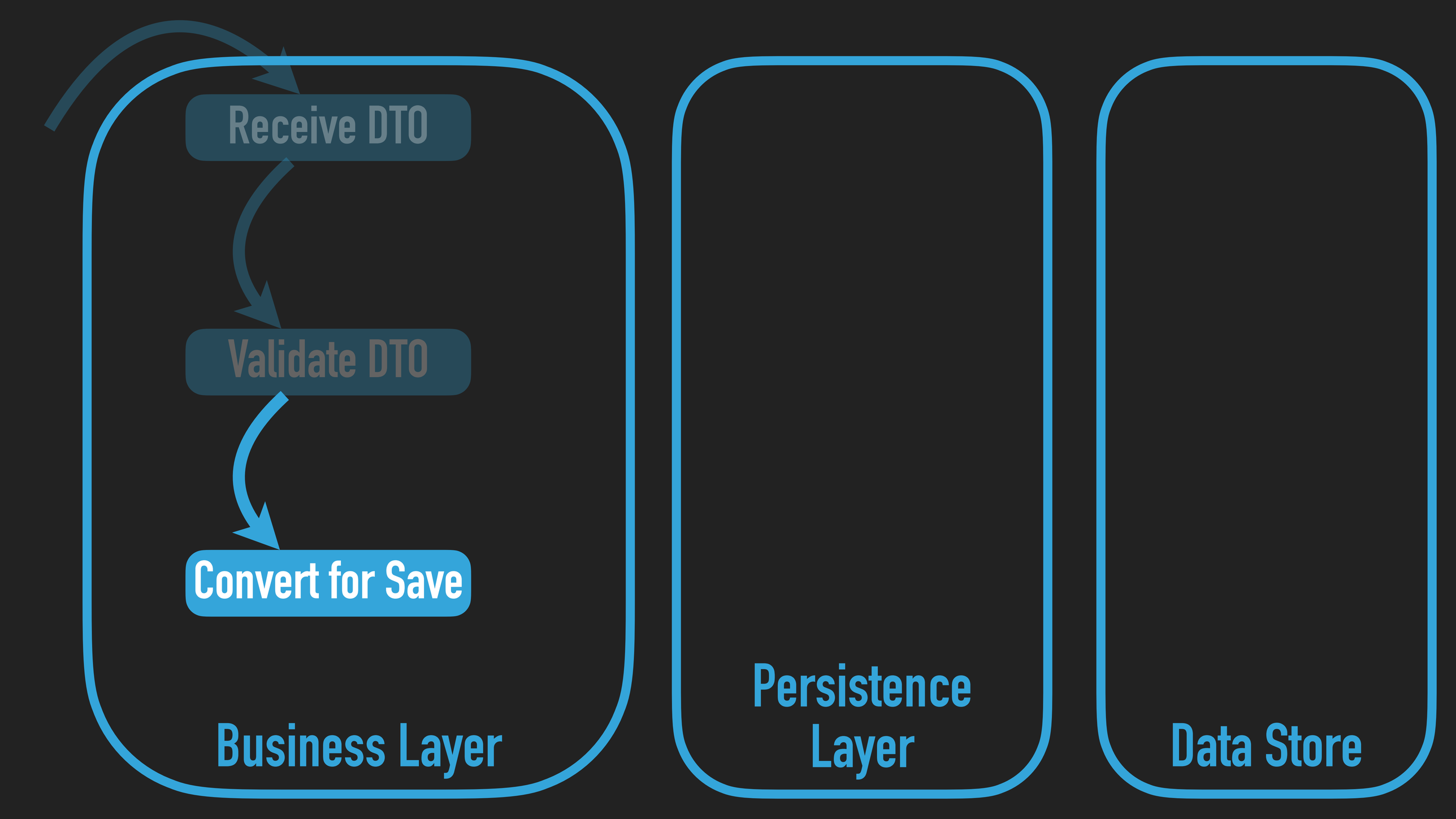
Query Versions: Query language, returns POJOs with version information

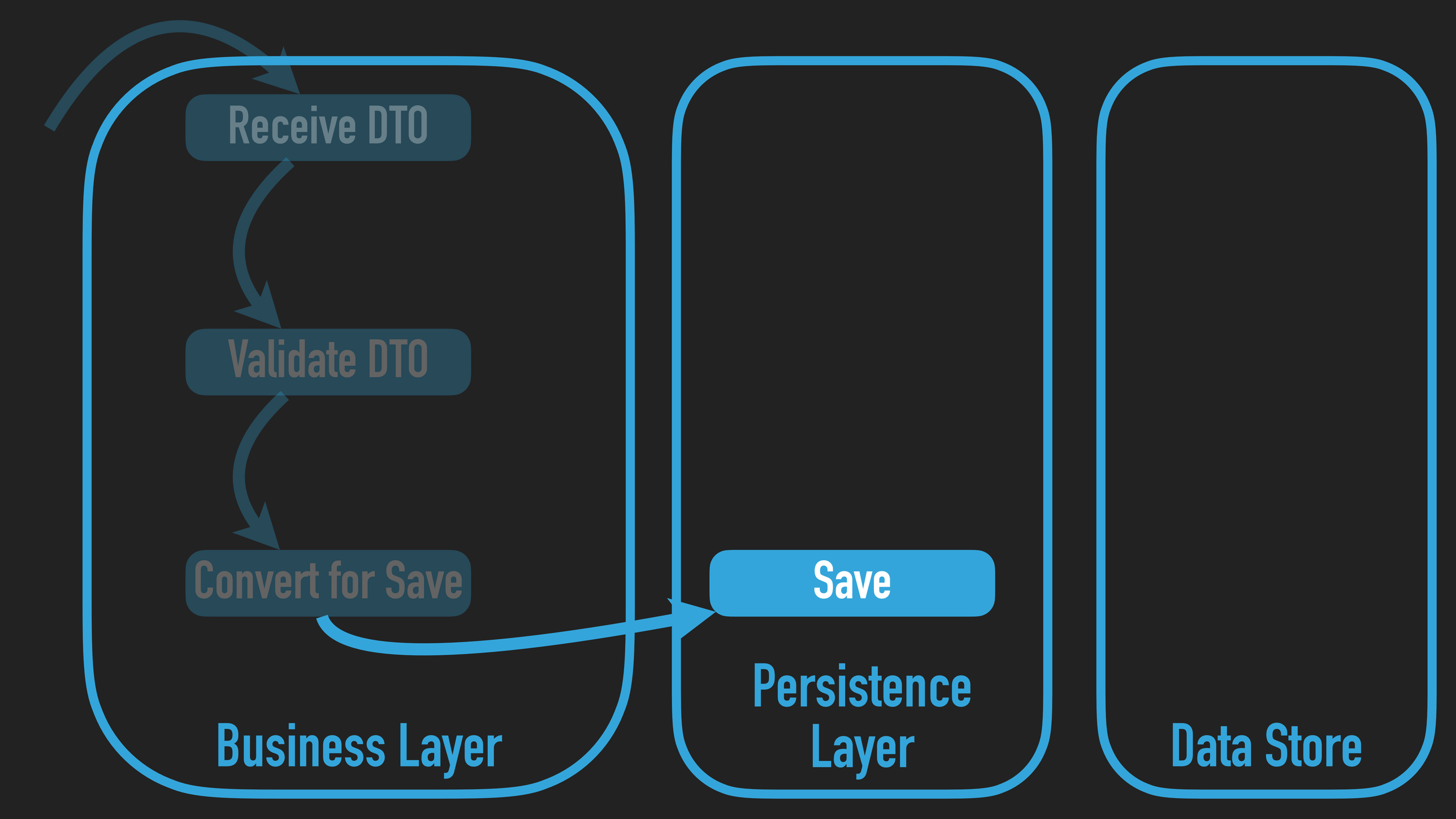
Compare 2 Versions: Computes diff of 2 POJOs

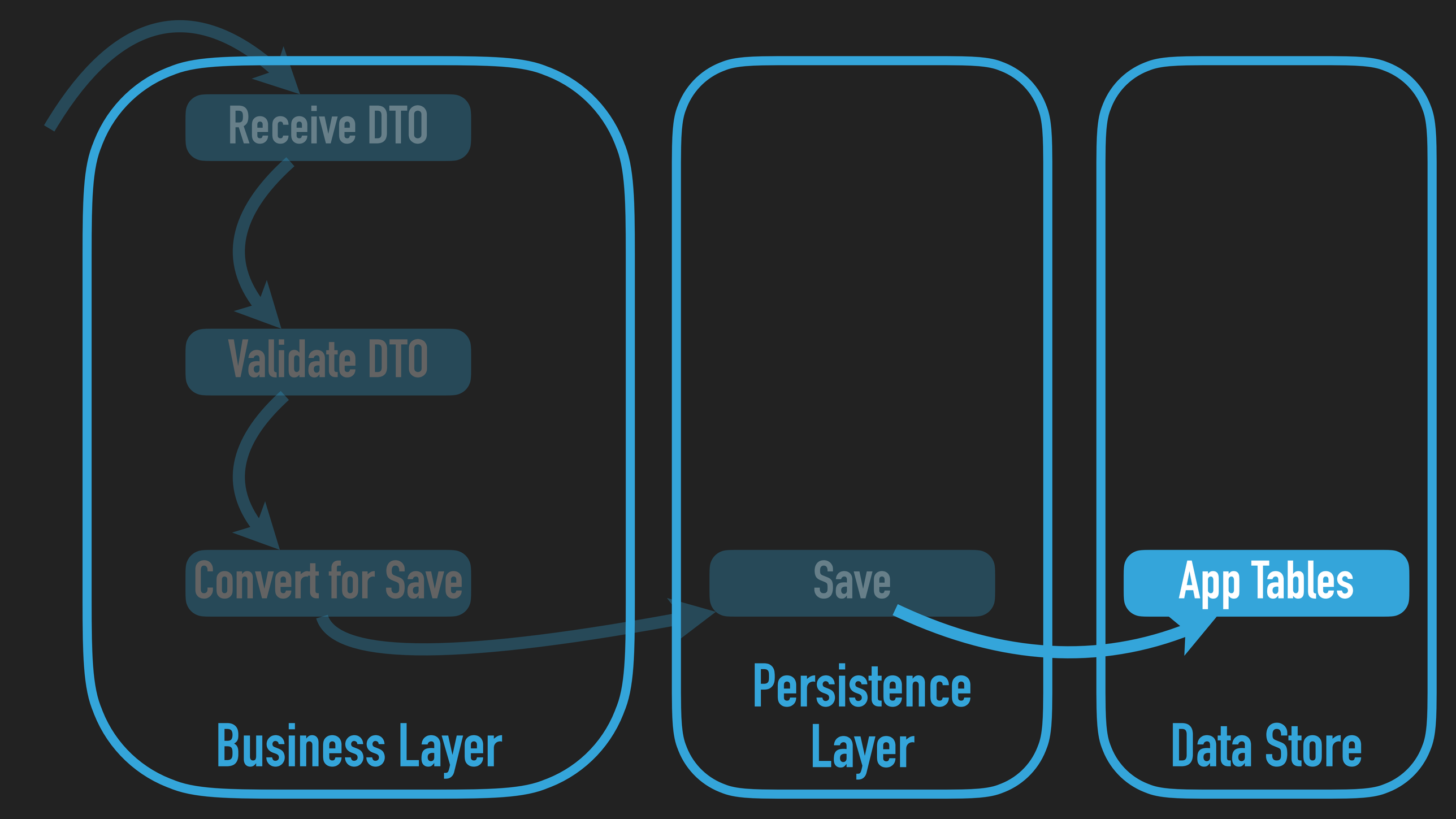
WHERE DOES "CREATE VERSION" FIT IN?

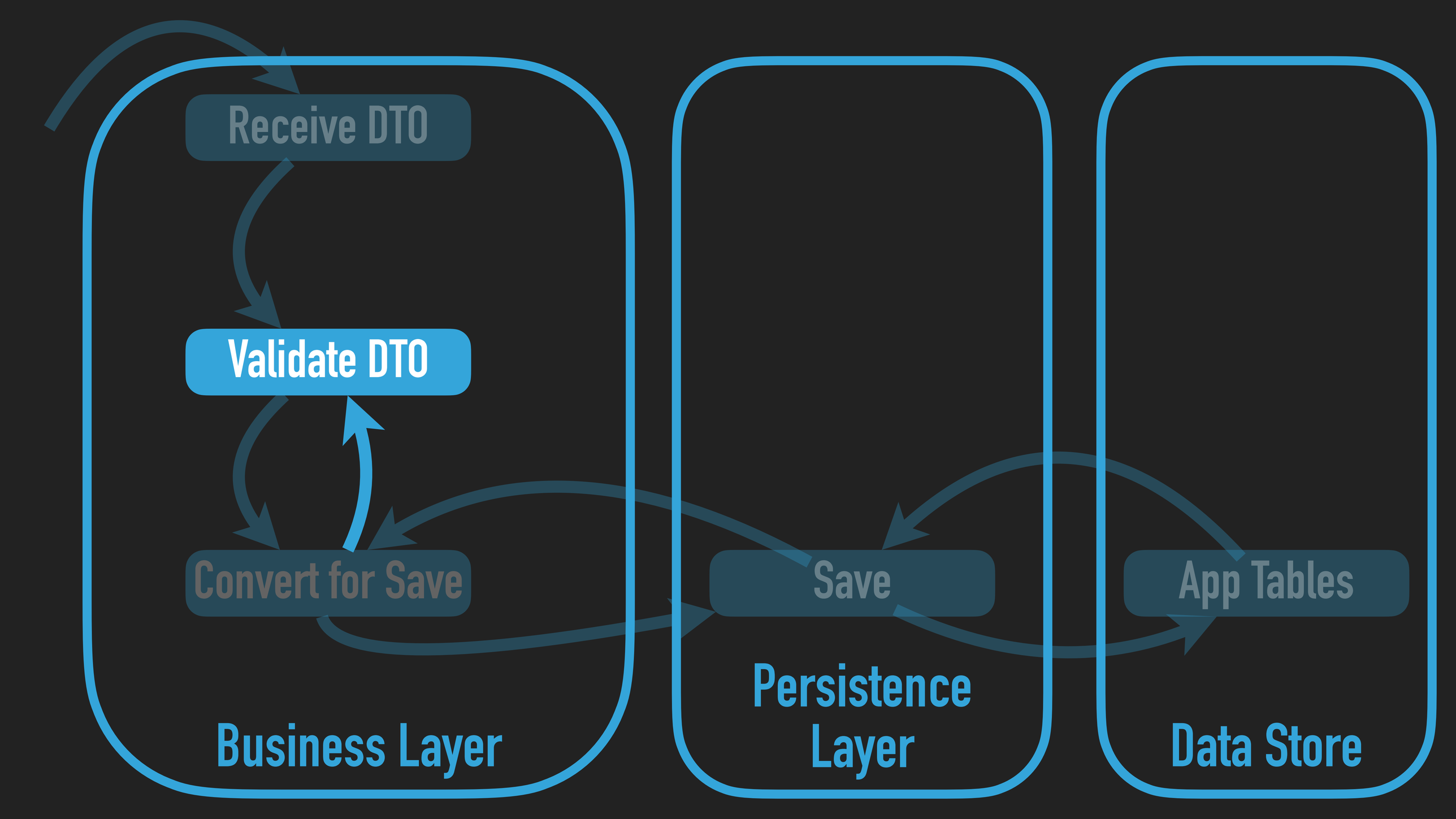

Receive DTO
Business Layer
Persistence Layer
Data Store

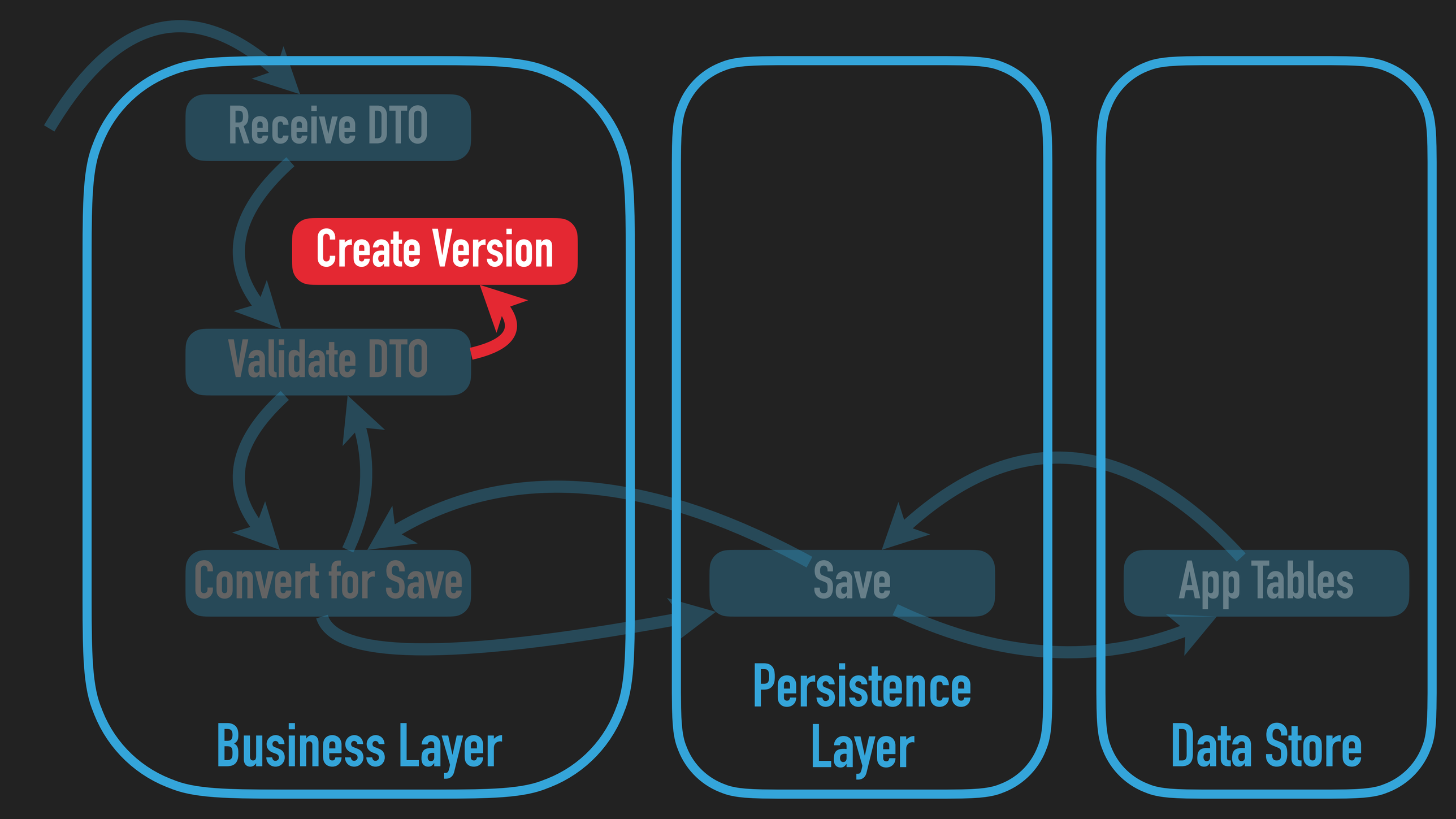

Receive DTO
Validate DTO
Business Layer
Persistence Layer
Data Store

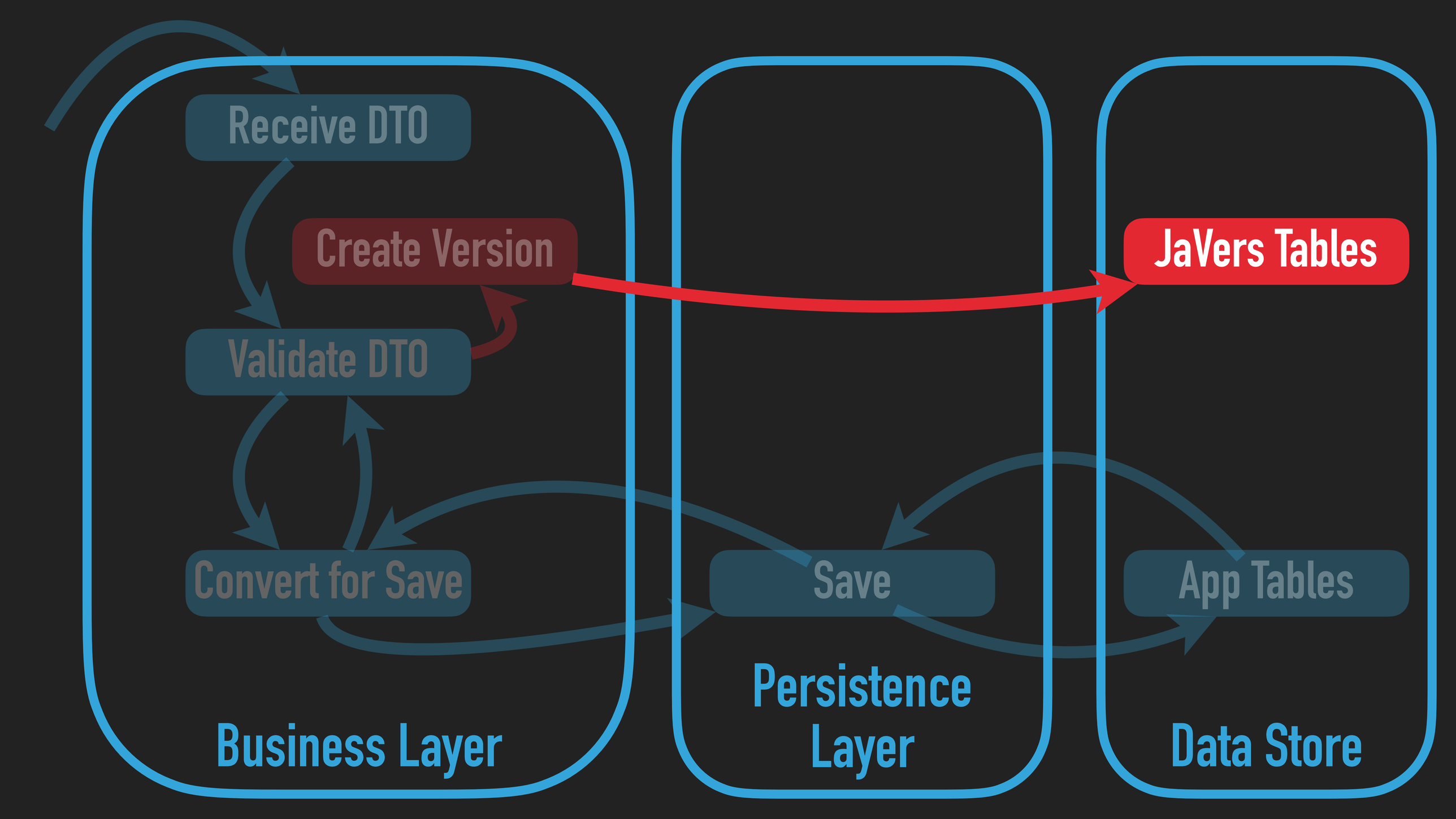

Receive DTO
Validate DTO
Convert for Save
Business Layer
Persistence Layer
Data Store

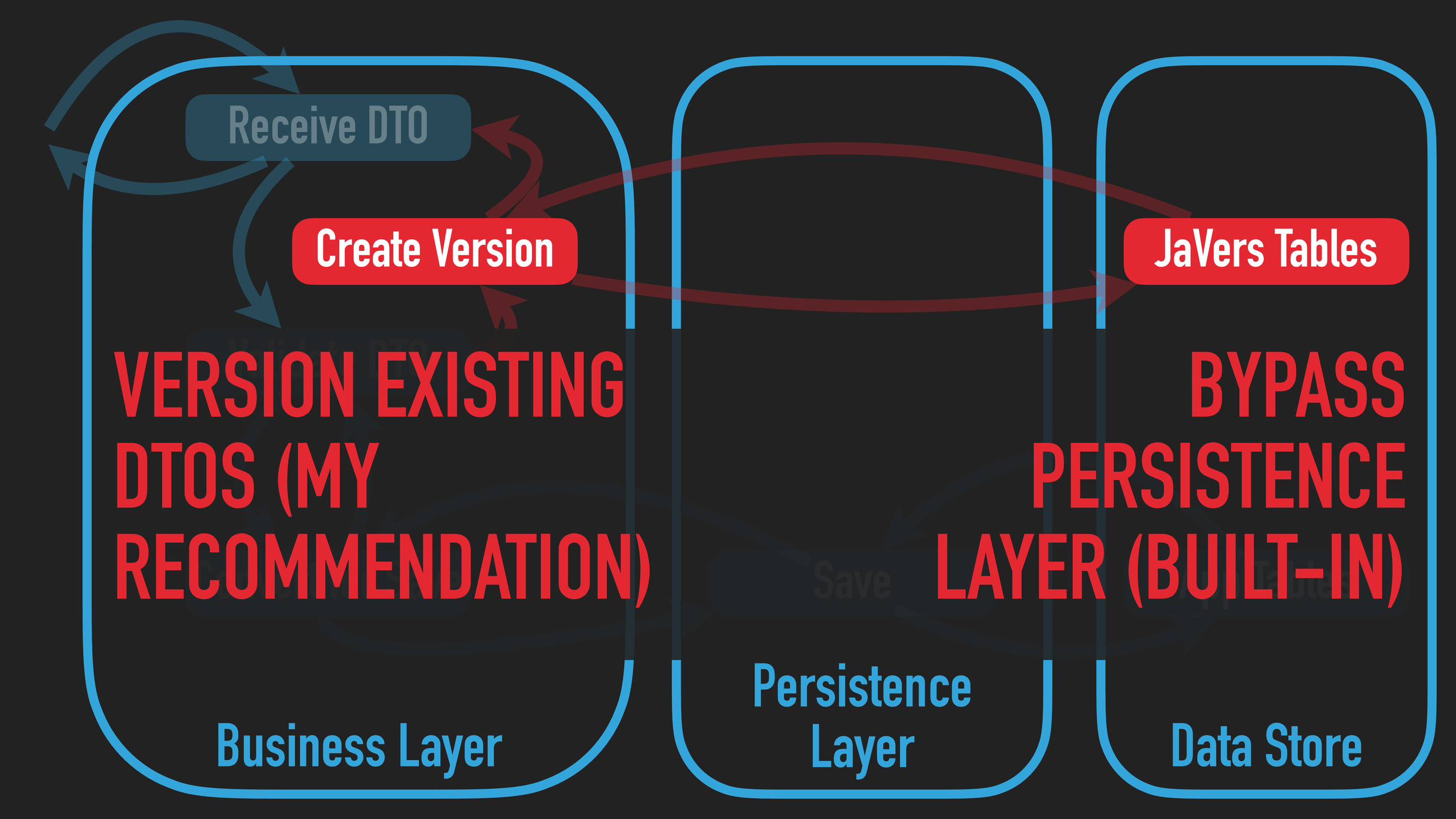

Receive DTO
Validate DTO
Convert for Save
Save
Business Layer
Persistence Layer
Data Store


Receive DTO
Validate DTO
Convert for Save
Save
App Tables
Business Layer
Persistence Layer
Data Store


Receive DTO
Validate DTO
Convert for Save
Save
App Tables
Business Layer
Persistence Layer
Data Store


Receive DTO
Create Version
Validate DTO
Convert for Save
Save
App Tables
Business Layer
Persistence Layer
Data Store


Receive DTO
Create Version
Validate DTO
Convert for Save
Save
JaVers Tables
App Tables
Business Layer
Persistence Layer
Data Store


Receive DTO
Create Version
JaVers Tables
VERSION EXISTING DTOS (MY RECOMMENDATION)
BYPASS PERSISTENCE LAYER (BUILT-IN)
Business Layer
Persistence Layer
Data Store

FRONT-END

JAVA BACK-END

SHOW ALL VERSIONS

CREATE VERSION

SHOW ONE VERSION

QUERY VERSIONS

COMPARE 2 VERSIONS

COMPARE 2 VERSIONS

FRONT-END

SHOW ALL VERSIONS

SHOW ONE VERSION

COMPARE 2 VERSIONS

JAVA BACK-END

CREATE VERSION

Customize DTO, generic

QUERY VERSIONS

COMPARE 2 VERSIONS

FRONT-END

SHOW ALL VERSIONS

SHOW ONE VERSION

COMPARE 2 VERSIONS

JAVA BACK-END

CREATE VERSION

Customize DTO, generic

QUERY VERSIONS

Generic

COMPARE 2 VERSIONS

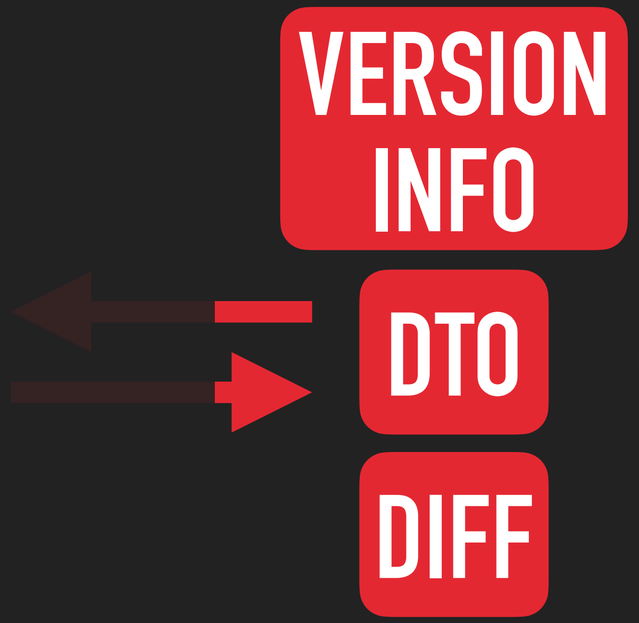
FRONT-END

SHOW ALL VERSIONS

SHOW ONE VERSION

COMPARE 2 VERSIONS

JAVA BACK-END



CREATE VERSION

Customize DTO, generic

QUERY VERSIONS

Generic

COMPARE 2 VERSIONS

Customized for DTO

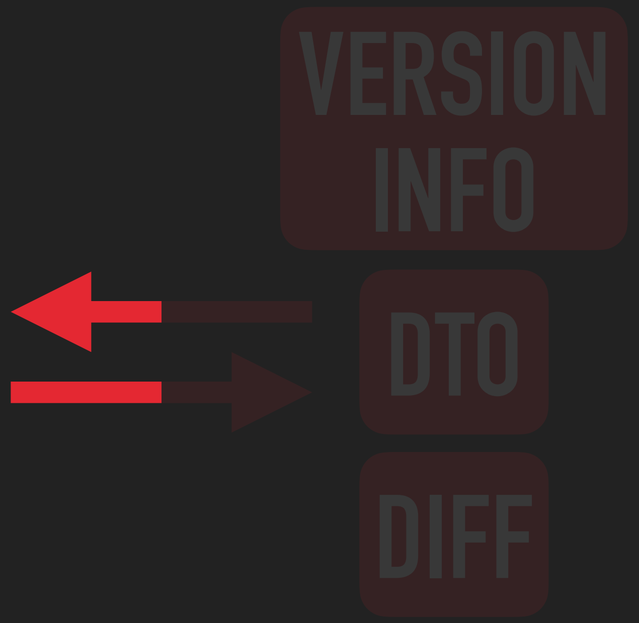
FRONT-END

SHOW ALL VERSIONS

New UI, generic with version information

SHOW ONE VERSION

COMPARE 2 VERSIONS



JAVA BACK-END

CREATE VERSION

Customize DTO, generic

QUERY VERSIONS

Generic

COMPARE 2 VERSIONS

Customized for DTO

FRONT-END

SHOW ALL VERSIONS

New UI, generic with version information

SHOW ONE VERSION

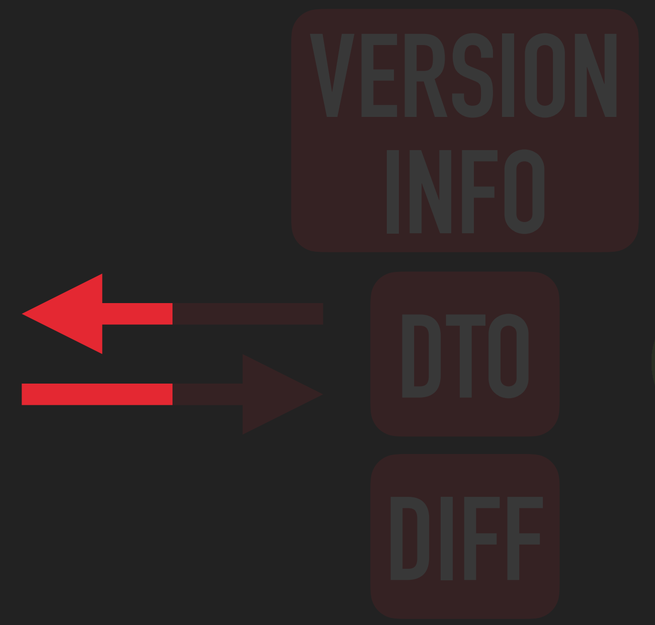
Reuses UI, version information

COMPARE 2 VERSIONS

JAVA BACK-END

CREATE VERSION

Customize DTO, generic



QUERY VERSIONS

Generic

COMPARE 2 VERSIONS

Customized for DTO

FRONT-END

SHOW ALL VERSIONS

New UI, generic with version information

SHOW ONE VERSION

Reuses UI, version information

COMPARE 2 VERSIONS

Extends UI with diff

VERSION INFO

DTO

DIFF

JAVA BACK-END

CREATE VERSION

Customize DTO, generic

QUERY VERSIONS

Generic

COMPARE 2 VERSIONS

Customized for DTO

FRONT-END

SHOW ALL VERSIONS

New UI, generic with version information

SHOW ONE VERSION

Reuses UI, version information

COMPARE 2 VERSIONS

Extends UI with diff

VERSION INFO

DTO

DIFF

JAVA BACK-END

CREATE VERSION

Customize DTO, generic

QUERY VERSIONS

Generic

COMPARE 2 VERSIONS

Customized for DTO

AUDIT LOG: WHO CHANGED WHAT WHEN HOW

SHOW AUDIT LOG TO USERS

BYPASS PERSISTENCE LAYER

VERSION EXISTING DTOS

JAVERS COMPUTES DIFF OF DTOS

Version Details

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JAVERS

EASY AUDIT LOGS IN JAVA

SLIDES

SAMPLE CODE

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