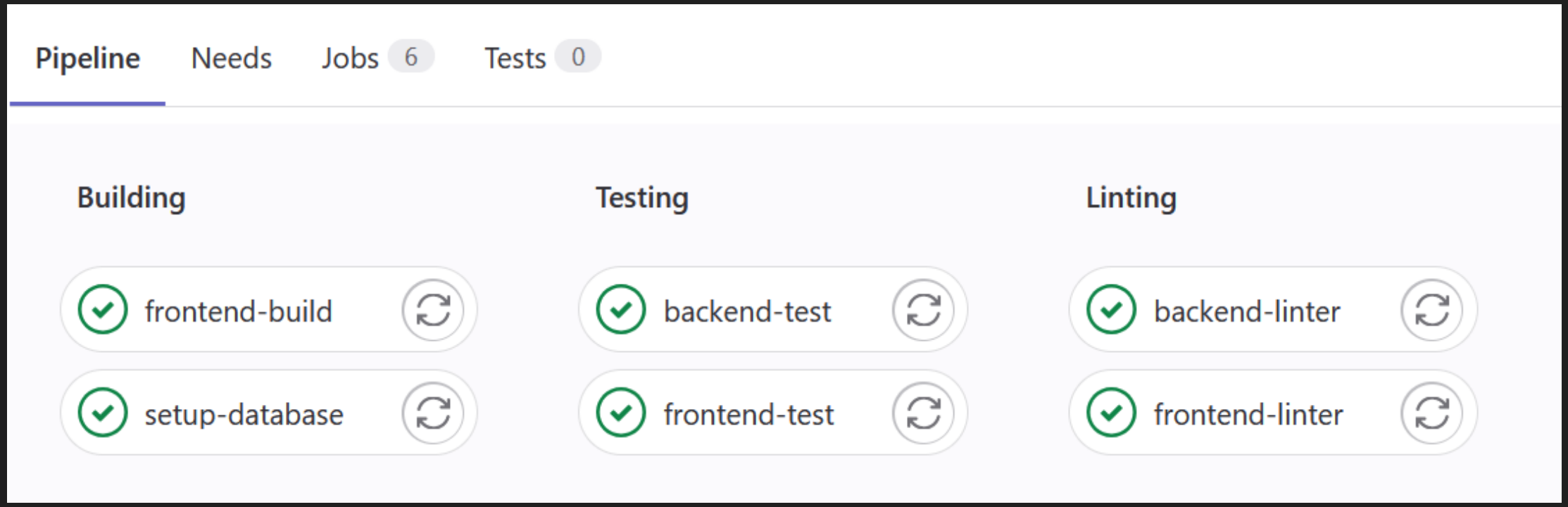
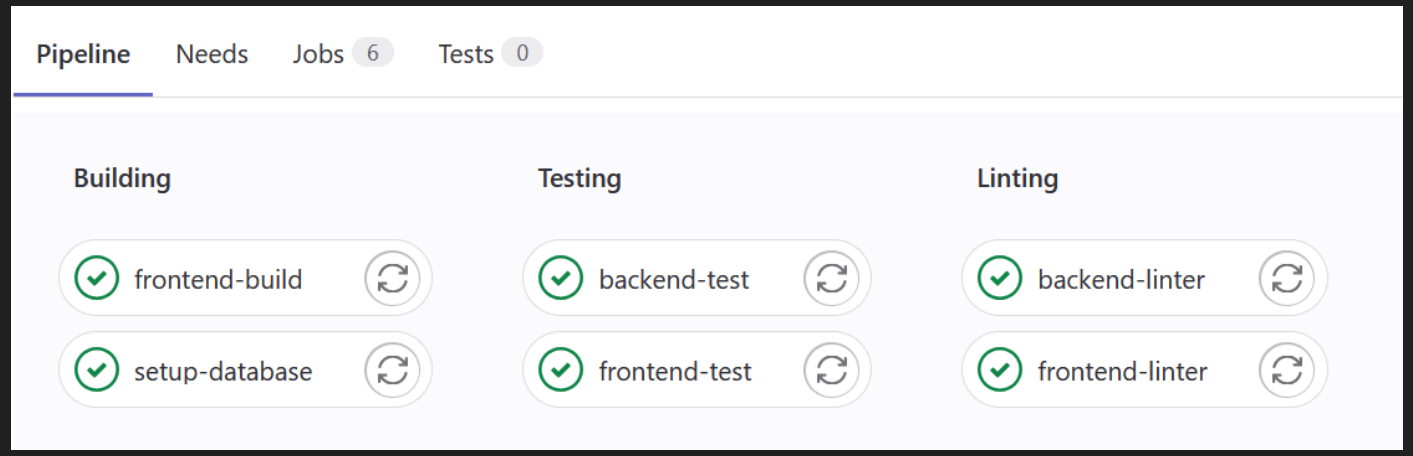
Quality Assurance

Bennet Hörmann, Salomo Hummel, Simeon Schrape, Erik Wu, Udo Zucker

CI / CD Pipeline

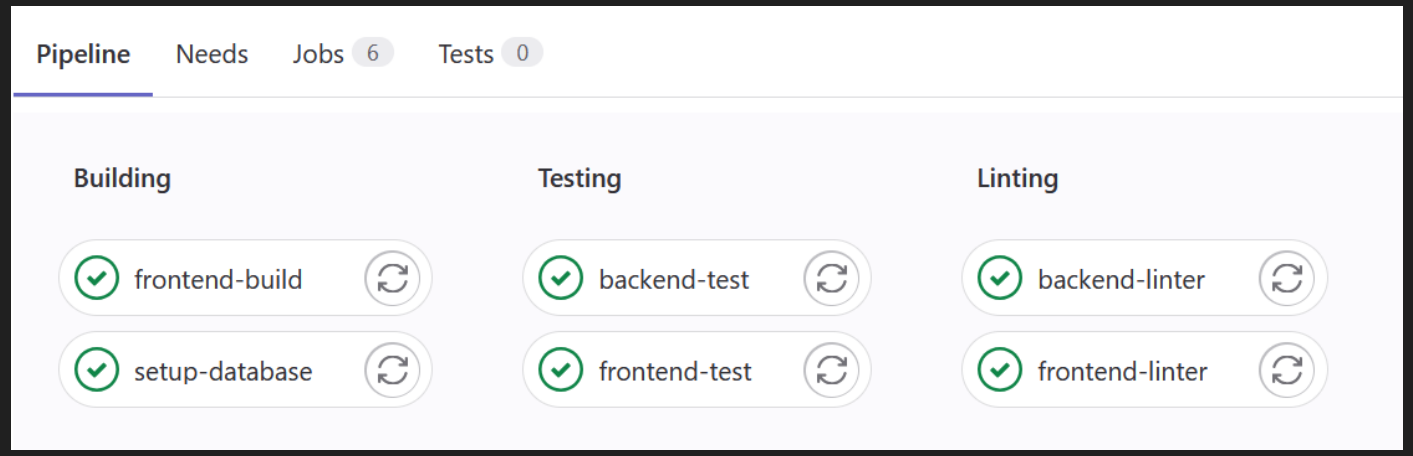


CI / CD Pipeline – Unit Testing



Frontend: Jest
Backend: Unittest with Coverage

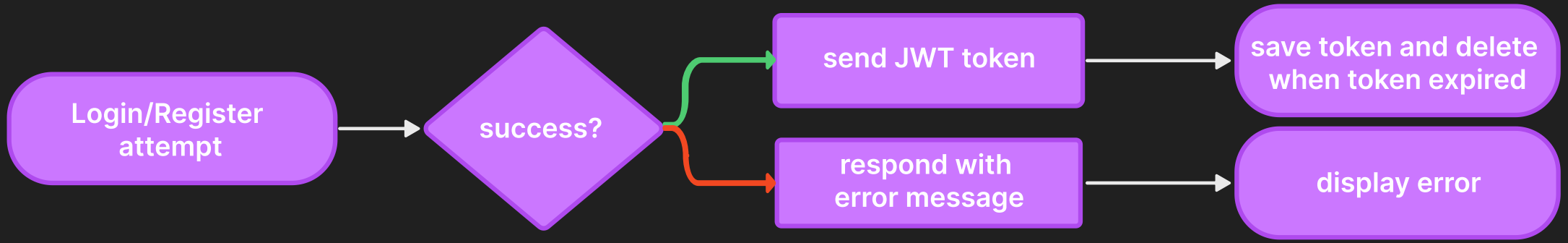
CI / CD Pipeline – Linting



Frontend: Eslint
Backend: Flake

Problem when authentication token expires

Authentication implemented using JWT tokens



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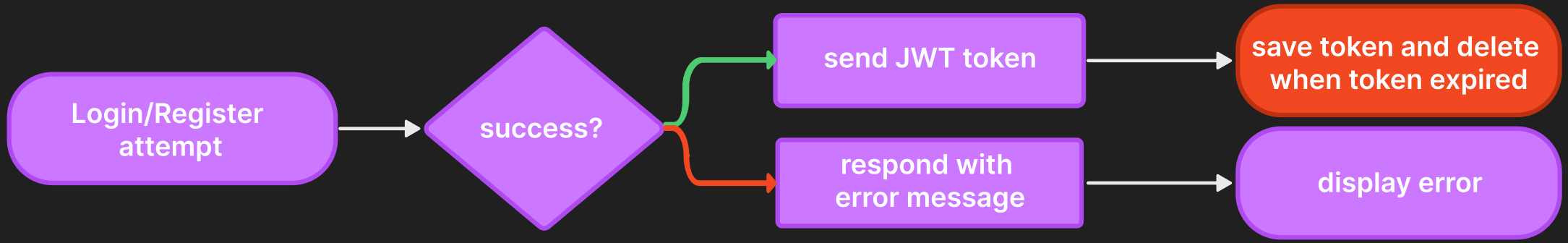
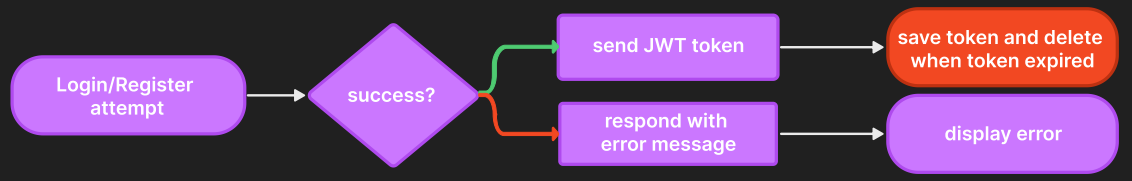


Problem when authentication token expires

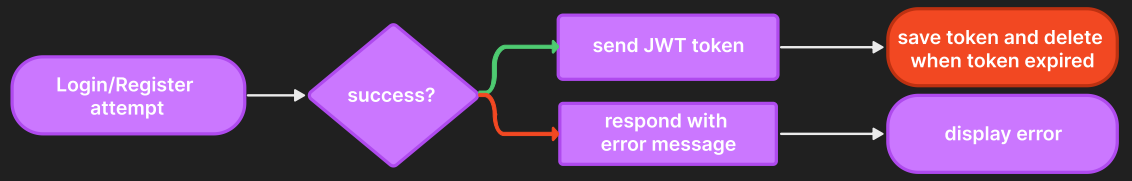
Situation Token expires whilst user on page requiring authentication



Problem when authentication token expires

Situation Token expires whilst user on page requiring authentication

Previously User remains on page, interactions have no effect



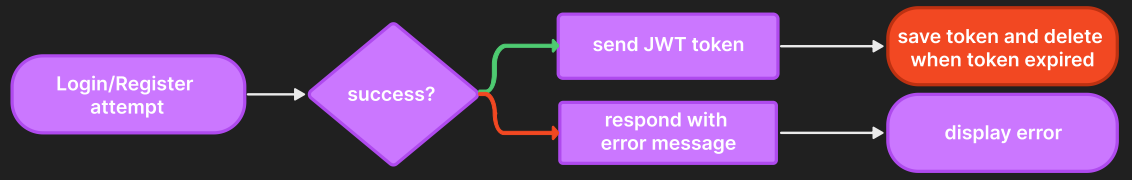
Problem when authentication token expires

Situation Token expires whilst user on page requiring authentication

Previously User remains on page, interactions have no effect

Improved and desired behaviour

- Logs user out
- Redirects user to login page



Changes made to password storage

Previously Password hashes (using SHA-256) stored in database

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Improved

- Passwords now hashed using bcrypt

id [PK] integer	name character varying	password character varying
1	TestUser1	$2b$14$pvbe1qaxqpGUowBa.TIeV.Iw7aLfkeYFKI0Tkw/QDLH.VwNGE3m1y
2	TestUser2	$2b$14$oLgWogcHF8TGJnf8iVAq9e495XtpoKfAciMg/EdWjFXcPEMBgcW...

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Previously Password hashes (using SHA-256) stored in database

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- Passwords now hashed using bcrypt
- Password now also salted

id [PK] integer	name character varying	password character varying
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⇒Increased security

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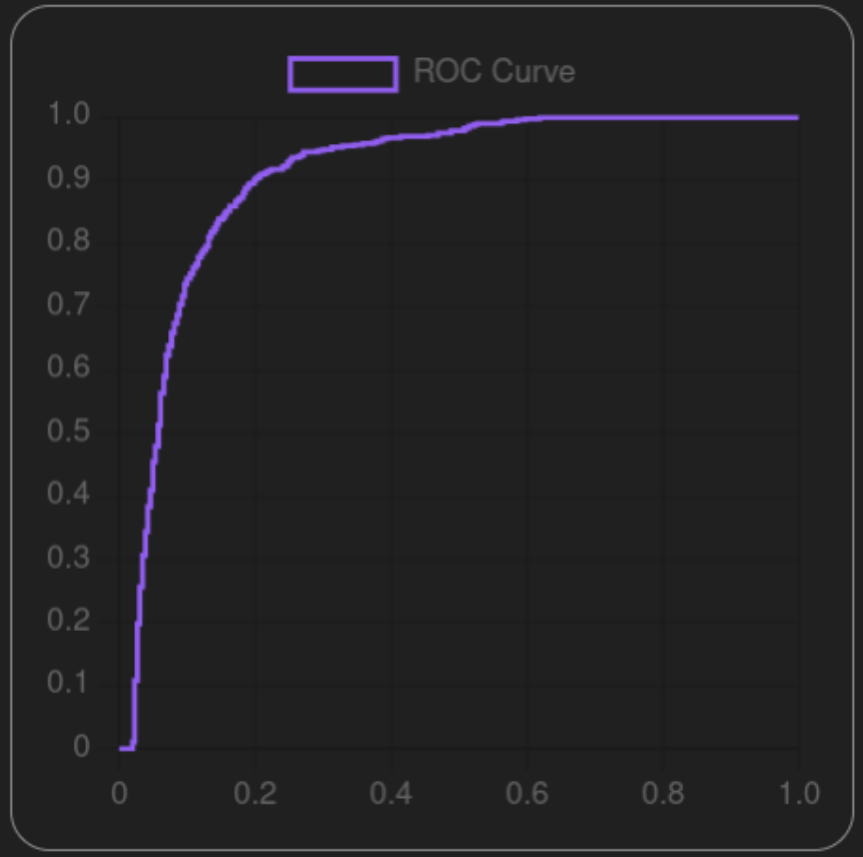
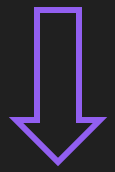
AUC and ROC Curve



Improved Subspace Logic

Previously

```
[0] or [1] or [2] and [3]
```



Interpreted as

```
[0] or ([1] or ([2] and [3]))
```

Improved

```
([0] or [1]) and ([2] or [3])
```

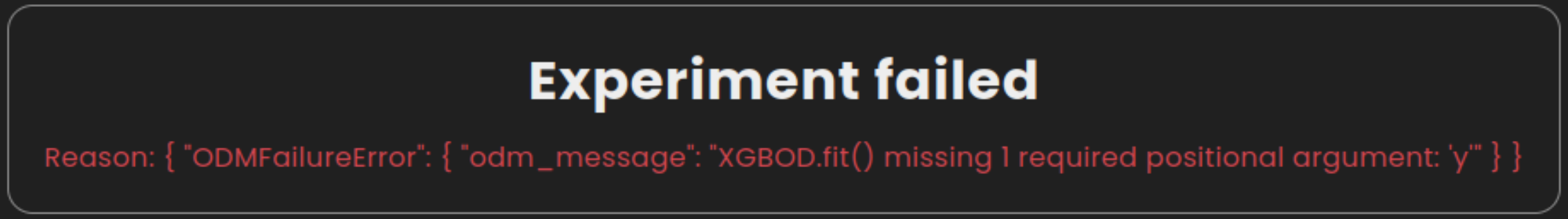
Improved ODM Error Handling

Previously Exceptions are not handled correctly

Improved Exceptions are handled and errors are displayed to the user

Unfixed Supervised ODMs

Supervised methods are available in the app but always fail



(XGBOD is semi-supervised)

Improved Date on Dashboard

- Creation Date
- Presentation as [time] ago
- => all experiments are sorted by their creation date as default

Search... Clear

Name	Dataset	ODM	Hyperparameters	Date	Accuracy
Experiment #7	breastw.csv	AnoGAN	Running ...	6s ago	
Experiment #6	ecoli.csv	AnoGAN	Failed :(	1m ago	
Experiment #5	wine.csv	ECOD	n_jobs: 1	2m ago	82.2%
Experiment #4	glass.csv	ABOD	contamination: 0.2, n_neighbors: 25, method: fast	2m ago	67.8%
Experiment #3	cover.csv	ABOD	Failed :(	3m ago	
Experiment #2	annthyroid.csv	IForest		4m ago	93.2%
Experiment #1	mnist.csv	CBLOF		4m ago	88.4%

Experiment Counting

Search... Clear

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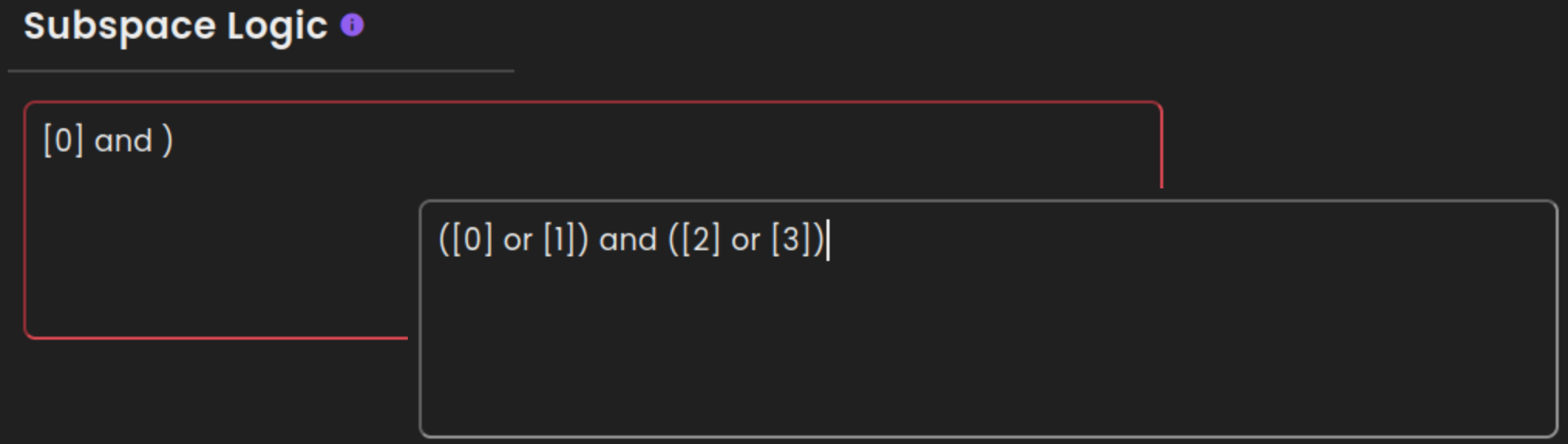
Improved Sorting on Dashboard

- Cell contains Tuple
- ([metaData] , [string representation])

- Rows are sorted by metadata of the collumn
  - example: dates are compared by their int values
- cells display the string representation

Improved Subspace Logic indicator

- Instant feedback for incorrect/incomplete subspacelolgic



Thanks for your attention!

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