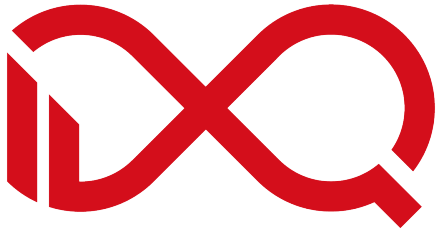

data-quest

SimpleORMap can be even better

Solving n+1, refactoring and adding new utilities

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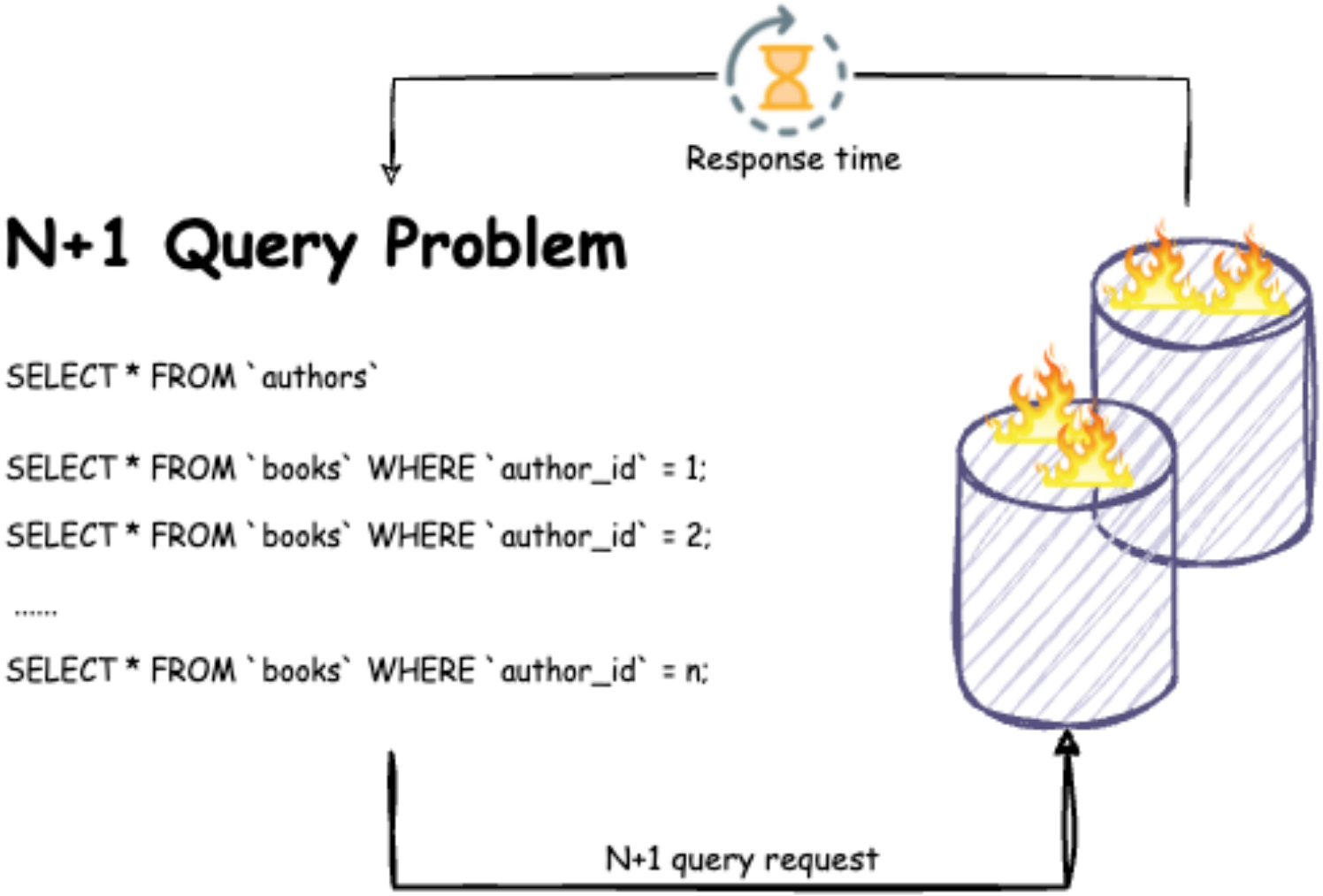
Agenda

- `SimpleORMap` issues
  - `N + 1` (Eager Loading)
  - Code Design
    - Low Abstraction/Encapsulation
    - Single Responsibility Principle
- Demo of New Methods


Response time
N+1 Query Problem
SELECT * FROM `authors`
SELECT * FROM `books` WHERE `author_id` = 1;
SELECT * FROM `books` WHERE `author_id` = 2;
.....
SELECT * FROM `books` WHERE `author_id` = n;
N+1 query request

How to fix N+1?

```
User::with( relation: 'courses')→all();

User::with(['courses', 'memberships'])→all();

User::withOut( relation: 'contactGroups')→all();
```

How to fix N+1?

```
class User extends AuthUserMd5 implements Range, PrivacyO
{
    protected array $with = ['courses', 'membership'];
    1 usage
    protected array $withOut = ['contactGroups'];
```

Low Abstraction/Encapsulation

- Client code depends on SQL syntax

```
User::findBySQL(
    sql: "perms = :perms OR vorname LIKE :vorname ORDER BY vorname DESC LIMIT 3",
    [
        'perms' ⇒ 'admin',
        'vorname' ⇒ '%Test%'
    ]
);
```

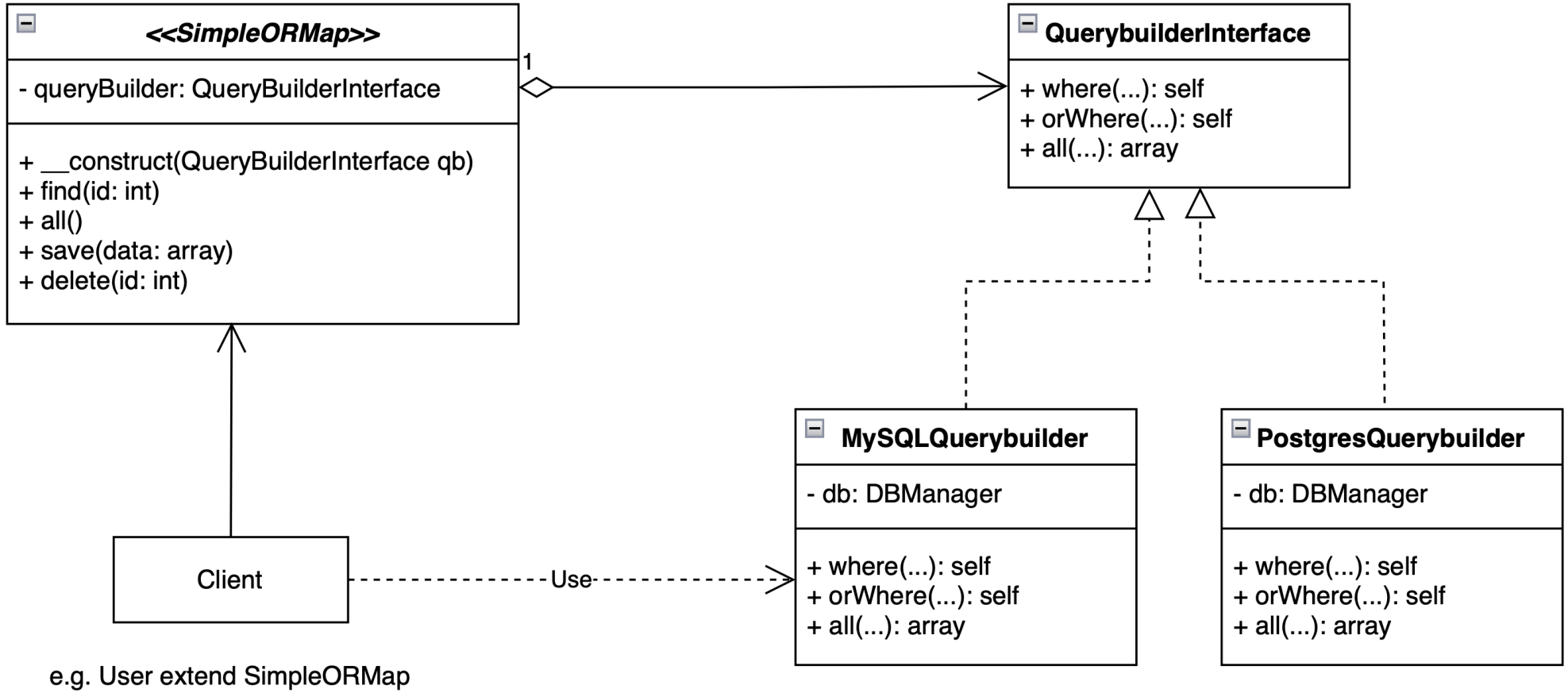
How to fix?

```
User::where( column: 'perms',  operator: 'admin')
    ->orWhere( column: 'vorname',  operator: 'LIKE',  value: '%Test%')
    ->orderBy( column: 'vorname',  direction: 'DESC')
    ->limit( number: 3)
    ->all();
```

Single Responsibility Principle (SRP)

> “A class should have only one reason to change.”
> — Robert C. Martin

New Code Design



e.g. User extend SimpleORMap

Fragen & Diskussion