MULTI-TENANCY

WITH LARAVEL

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- A full-stack developer
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  - A Calbayog based IT Company
  - We specialize in developing custom software solutions for businesses.

What is Multi-tenancy?

In multi-tenant software architecture—also called *software multitenancy*—a single instance of a software application (and its underlying database and hardware) serves multiple tenants (or user accounts).

https://www.ibm.com/think/topics/multi-tenant

Why Multi-Tenancy?

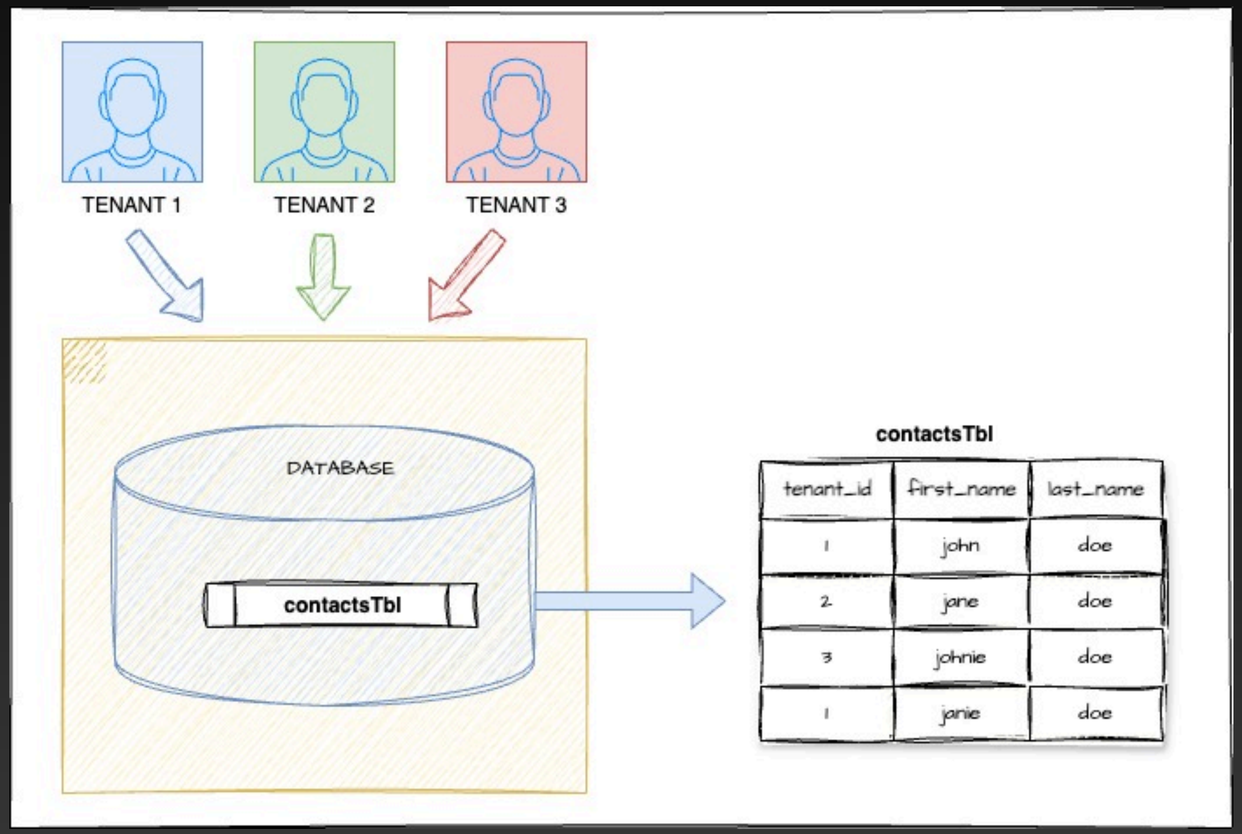
- Cost Savings
- Simplified Management
- Scalability
- Resource Efficiency
- Faster Onboarding

Multi-Tenant Applications

Multi-tenancy Approaches

Shared database - shared schema

Multi-tenancy Approaches



Pros:

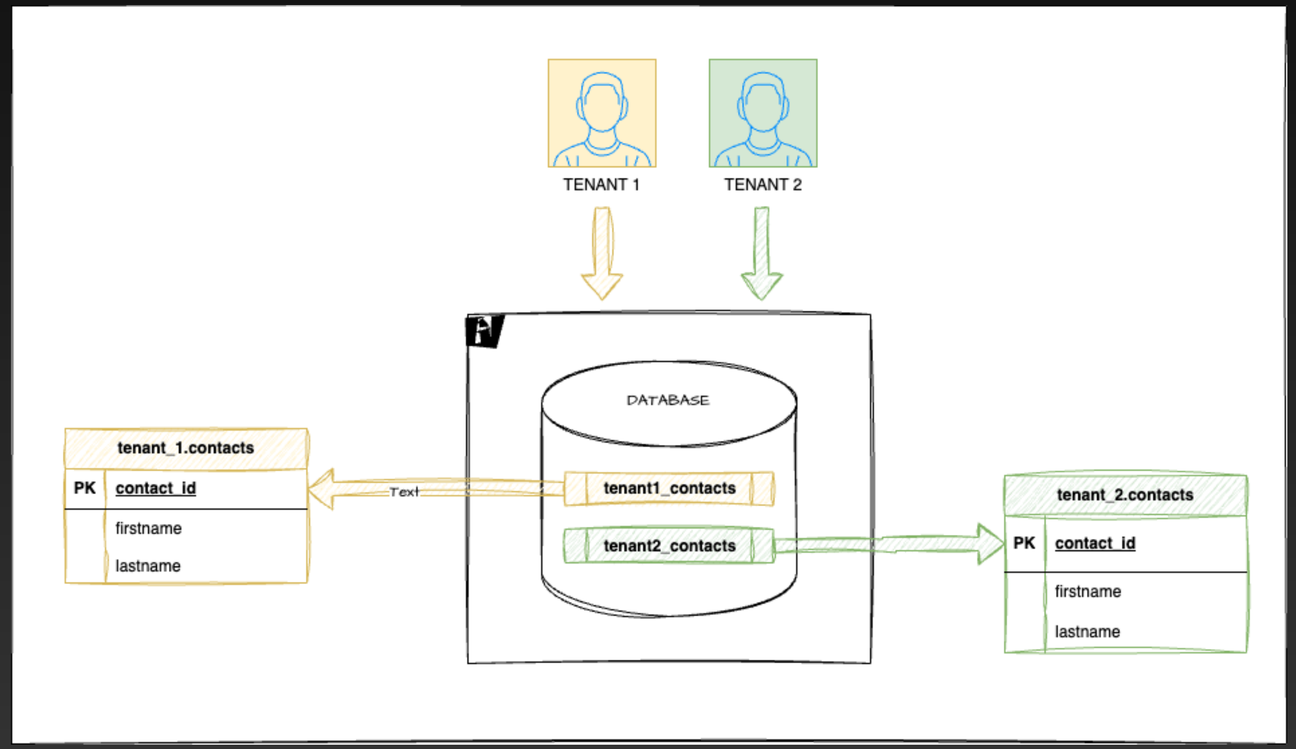
- Simplest to set up
- Most cost-effective
- Efficient resource utilization

Cons

- Complex data isolation
- Potential performance bottlenecks
- Schema changes impact all tenants
- Less secure data separation

Shared database - separate schemas

Multi-tenancy Approaches



Pros:

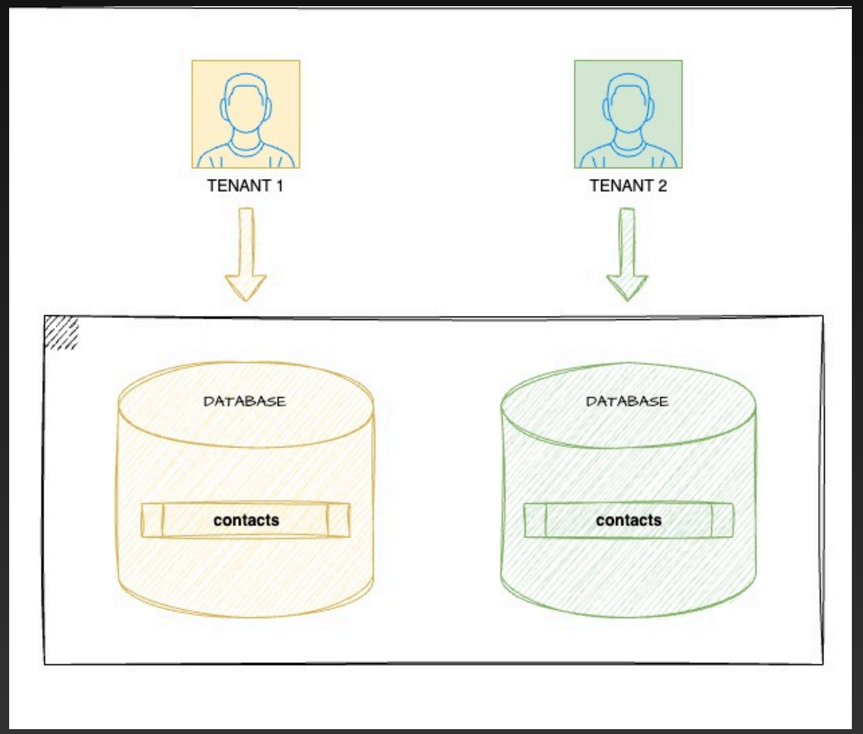
- Better data isolation
- Good balance of cost and isolation

Cons

- More complex than shared schema
- Schema management still needs careful planning
- Potential for cross-schema issues if not managed well

Separate databases

Multi-tenancy Approaches



Pros:

- Strongest data isolation
- Tenant-specific customization possible
- Enhanced security
- Performance isolation

Cons

- Highest cost
- Most complex to manage
- Resource intensive
- More overhead for tenant onboarding and management

Implementing Multi-Tenancy in Your Laravel Applications

Laravel Packages

- https://spatie.be/docs/laravel-multitenancy/v4/introduction
- https://tenancyforlaravel.com/

Laravel-multitenancy (Spatie)

This package can be installed via composer:

```
composer require "spatie/laravel-multitenancy:^4.0"
```

Laravel-multitenancy (Spatie)

You must publish the config file:

```
1 php artisan vendor:publish --provider="Spatie\Multitenancy\MultitenancyServiceProvider" --tag="multitenancy-
  config"
```

demo

DEMO

Single DB / Shared Schema

https://github.com/marlexladag/dev8-singledb-multitenancy-demo

Multi-DB

https://github.com/marlexladag/dev8-multidb-multitenancy-demo