



**Laravel Cache**



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**Meet Laravel (HCM)**

# Scopes

- ❖ Why is Caching Important?
- ❖ What is the Laravel Caching?
- ❖ Cache types in Laravel
- ❖ Laravel Cache Driver?
- ❖ Laravel Cache method?
- ❖ Problems - How to handle and manage?
- ❖ Any things else

# ❖ Why is Caching Important



Query before caching

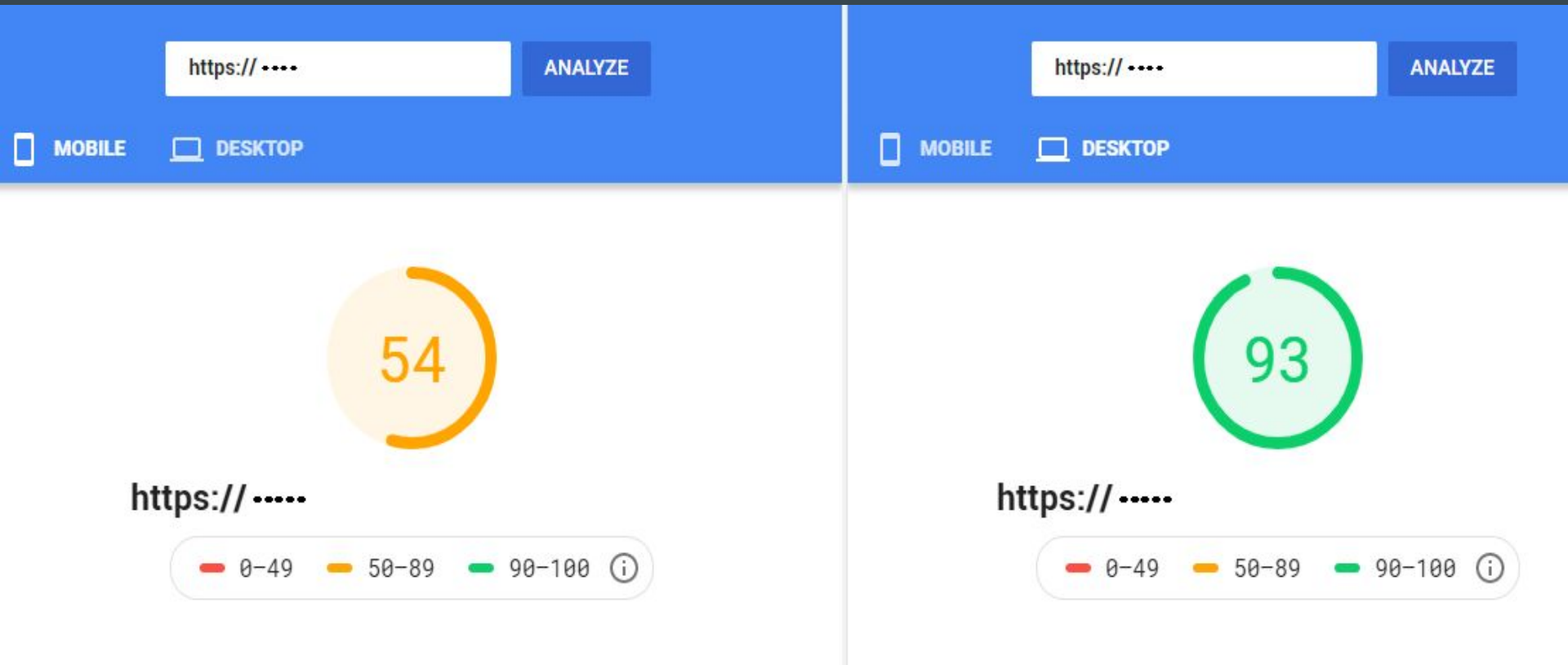
**1.3s** 🐌

Query after caching

**0.0006s** ⚡



# Why is Caching Important

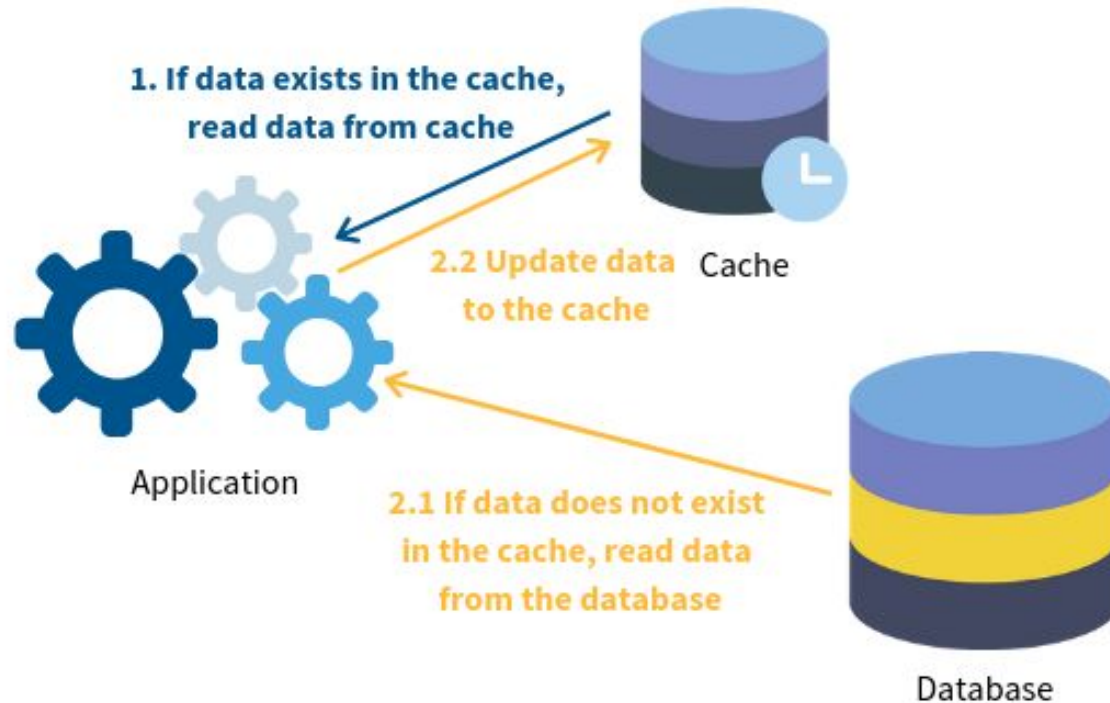


# ❖ Cache Principle

- ❑ Ensure data correctness
- ❑ Time very important



# What is Laravel Caching





# Cache Route

The screenshot shows the VS Code interface. On the left, the Explorer sidebar displays the project structure. The file `routes-v7.php` is highlighted with a blue selection bar and a red rectangle. An arrow points from this file to the main editor. The main editor shows the content of `routes-v7.php`, which is a PHP file for caching routes. The code includes a docblock with a description and a function call to `setCompiledRoutes`.

```
EXPLORER: SIT-MATCHING [Icons] ... routes-v7.php x

> app
└─ bootstrap
   └─ cache
      ├── .gitignore
      ├── config.php
      ├── packages.php
      └── routes-v7.php
      └─ services.php
└─ app.php
└─ config
   ├── api.php
   ├── app.php
   ├── auth.php
   ├── broadcasting.php
   ├── cache.php
   ├── cors.php
   ├── database.php
   ├── debugbar.php
   └── filesystems.php

bootstrap > cache > routes-v7.php
1  <?php
2
3  /*
4  |-----
5  | Load The Cached Routes
6  |-----
7  |
8  | Here we will decode and unseriali
9  | holds all of the route informati
10 | us to instantaneously load the en
11 |
12 */
13
14 app('router')->setCompiledRoutes(
15     array (
16         'compiled' =>
17         array (
18             0 => true,
19             1 =>
20             array (
```

For only  
Production





# Cache Route

```
/*
|-----
| Web Routes
|-----
|
| Here is where you can register web routes for your application. These
| routes are loaded by the RouteServiceProvider within a group which
| contains the "web" middleware group. Now create something great!
|
*/

Route::get('users', 'UserController@index')->name('users.index');
```

php artisan route:cache



```
array (
    'middleware' =>
        array (
            0 => 'web',
        ),
    'uses' => 'App\\Http\\Controllers\\UserController@index',
    'controller' => 'App\\Http\\Controllers\\UserController@index',
    'namespace' => 'App\\Http\\Controllers',
    'prefix' => NULL,
    'where' =>
        array (

```



# Cache Config

EXPLORER: SIT-MATCHING

bootstrap > cache > config.php

```
1 <?php return array (  
2     'api' =>  
3     array (  
4         'standardsTree' => 'x',  
5         'subtype' => '',  
6         'version' => 'v1',  
7         'prefix' => NULL,  
8         'domain' => NULL,  
9         'name' => NULL,  
10        'conditionalRequest' => true,  
11        'strict' => false,  
12        'debug' => false,  
13        'errorFormat' =>  
14        array (  
15            'message' => ':message',  
16            'errors' => ':errors',  
17            'code' => ':code',  
18            'status_code' => ':status_code',  
19            'debug' => ':debug',  
20        ),  
    ),  
);
```

For only  
Production

# ❖ Cache View

> app

✓ framework

> cache

> sessions

> testing

✓ views

❖ .gitignore

🐘 0ae633061453b95c5c1d982a...

🐘 0e7215aa9770135cb8be33f93...

🐘 0f5d9d5bc8e0cd251ea3bcf3c...

🐘 3d5e857bdd26b3b3e16630cb...

🐘 3e4382b2c620b7af338a2a64...

🐘 5e652e443dc642e640d1b425...

🐘 6b2302589209c0bc29191089...

🐘 6cbc45a30dc292f940b00b55...

🐘 07dd1400c8267cf2d1c408c1b...

```
<?php echo e($account['name']), ?>
```

```
<?php echo e($username); ?> 様
```

お支払いが完了しました

備品管理クラウドASSETZのご利用ありがとうございます。

登録済みのクレジットカードあてに ¥<?php echo e(\$accountBilling

料金プラン :<?php echo e(\$servicePlanName); ?>

支払いコース: <?php echo e(\$paymentTermName); ?>

支払い方法 :<?php echo e(\$paymentMethodCd); ?>

支払い方法 :<?php echo e(\$paymentMethodCd); ?>



# Cache Query

✓ framework

✓ cache

✓ data

> 1c

> 7b

✓ 8b/d7

≡ 8bd791d43ca7473a188ccc2...

> af

📁 .gitignore

📁 .gitignore

> sessions

> testing

✓ views

📁 .gitignore

🐘 0ae633061453b95c5c1d982a...

1659687814i:2;



# Cache Query

EXPLORER: SIT-MATCHING



- ▼ storage
  - > app
  - > debugbar
- ▼ framework
  - ▼ cache
    - ▼ data
      - ▼ 4d/86
        - ≡ 4d8685d8d31b70fc9c4bc8671b52f2b25014b582
      - ▼ 10/f7
        - ≡ 10f71961bd11dd33c1c95c771b98cf0e09d57b7c
      - ▼ 89/e4
        - ≡ 89e495e7941cf9e40e6980d14a16bf023ccd4c91
      - ▼ be/06
        - ≡ be0667921e0e824beb8eb07f26a126298b9938f8
    - ◆ .gitignore
    - > sessions
    - > testing
  - ▼ views



```
Cache::remember('users', $minutes, function () {  
    return User::paginate();  
})
```





# Cache Query

```
"Illuminate\Pagination\LengthAwarePaginator":11:{s:8:"0*0total";i:100;s:11:"0*0lastPage";i:10;s:8:"0*0items";
0:39:"Illuminate\Database\Eloquent\Collection":1:{s:8:"0*0items";a:10:{i:0;0:8:"App\User":28:{s:11:"0*0fillable";a:3:{i:0;s:4:"name";
i:1;s:5:"email";i:2;s:8:"password";};s:9:"0*0hidden";a:2:{i:0;s:8:"password";i:1;s:14:"remember_token";};s:8:"0*0casts";a:1:
{s:17:"email_verified_at";s:8:"datetime";};s:13:"0*0connection";s:5:"mysql";s:8:"0*0table";s:5:"users";s:13:"0*0primaryKey";s:2:"id";
s:10:"0*0keyType";s:3:"int";s:12:"incrementing";b:1;s:7:"0*0with";a:0:{s:12:"0*0withCount";a:0:{s:10:"0*0perPage";i:15;s:6:"exists";
b:1;s:18:"wasRecentlyCreated";b:0;s:13:"0*0attributes";a:8:{s:2:"id";i:12;s:4:"name";s:15:"Chanelle Murphy";s:5:"email";
s:23:"lori.daniel@example.org";s:17:"email_verified_at";s:19:"2020-07-15 02:23:31";s:8:"password";
s:60:"$2y$10$92IXUNpkj00r0Q5byMi.Ye4oKoEa3Ro9llC/.og/at2.uheWG/igi";s:14:"remember_token";s:10:"CbKVxNnggx";s:10:"created_at";
s:19:"2020-07-15 02:23:32";s:10:"updated_at";s:19:"2020-07-15 02:23:32";};s:11:"0*0original";a:8:{s:2:"id";i:12;s:4:"name";
s:15:"Chanelle Murphy";s:5:"email";s:23:"lori.daniel@example.org";s:17:"email_verified_at";s:19:"2020-07-15 02:23:31";s:8:"password";
s:60:"$2y$10$92IXUNpkj00r0Q5byMi.Ye4oKoEa3Ro9llC/.og/at2.uheWG/igi";s:14:"remember_token";s:10:"CbKVxNnggx";s:10:"created_at";
s:19:"2020-07-15 02:23:32";s:10:"updated_at";s:19:"2020-07-15 02:23:32";};s:10:"0*0changes";a:0:{s:17:"0*0classCastCache";a:0:{
s:8:"0*0dates";a:0:{s:13:"0*0dateFormat";N;s:10:"0*0appends";a:0:{s:19:"0*0dispatchesEvents";a:0:{s:14:"0*0observables";a:0:{
s:12:"0*0relations";a:0:{s:10:"0*0touches";a:0:{s:10:"0*0timestamps";b:1;s:10:"0*0visible";a:0:{s:10:"0*0guarded";a:1:{i:0;s:1:"*";
s:20:"0*0rememberTokenName";s:14:"remember_token";};i:1;0:8:"App\User":28:{s:11:"0*0fillable";a:3:{i:0;s:4:"name";i:1;s:5:"email";i:2;
s:8:"password";s:9:"0*0hidden";a:2:{i:0;s:8:"password";i:1;s:14:"remember_token";};s:8:"0*0casts";a:1:{s:17:"email_verified_at";
s:8:"datetime";};s:13:"0*0connection";s:5:"mysql";s:8:"0*0table";s:5:"users";s:13:"0*0primaryKey";s:2:"id";s:10:"0*0keyType";s:3:"int";
s:12:"incrementing";b:1;s:7:"0*0with";a:0:{s:12:"0*0withCount";a:0:{s:10:"0*0perPage";i:15;s:6:"exists";b:1;
s:18:"wasRecentlyCreated";b:0;s:13:"0*0attributes";a:8:{s:2:"id";i:13;s:4:"name";s:17:"Dr. Aracely Fadel";s:5:"email";
s:27:"hilbert.pacocha@example.com";s:17:"email_verified_at";s:19:"2020-07-15 02:23:31";s:8:"password";
s:60:"$2y$10$92IXUNpkj00r0Q5byMi.Ye4oKoEa3Ro9llC/.og/at2.uheWG/igi";s:14:"remember_token";s:10:"DIE42Hvrvh";s:10:"created_at";
s:19:"2020-07-15 02:23:32";s:10:"updated_at";s:19:"2020-07-15 02:23:32";};s:11:"0*0original";a:8:{s:2:"id";i:13;s:4:"name";s:17:"Dr.
Aracely Fadel";s:5:"email";s:27:"hilbert.pacocha@example.com";s:17:"email_verified_at";s:19:"2020-07-15 02:23:31";s:8:"password";
s:60:"$2y$10$92IXUNpkj00r0Q5byMi.Ye4oKoEa3Ro9llC/.og/at2.uheWG/igi";s:14:"remember_token";s:10:"DIE42Hvrvh";s:10:"created_at";
s:19:"2020-07-15 02:23:32";s:10:"updated_at";s:19:"2020-07-15 02:23:32";};s:10:"0*0changes";a:0:{s:17:"0*0classCastCache";a:0:{
s:8:"0*0dates";a:0:{s:13:"0*0dateFormat";N;s:10:"0*0appends";a:0:{s:19:"0*0dispatchesEvents";a:0:{s:14:"0*0observables";a:0:{
s:12:"0*0relations";a:0:{s:10:"0*0touches";a:0:{s:10:"0*0timestamps";b:1;s:10:"0*0visible";a:0:{s:10:"0*0guarded";a:1:{i:0;s:1:"*";
s:20:"0*0rememberTokenName";s:14:"remember_token";};i:2;0:8:"App\User":28:{s:11:"0*0fillable";a:3:{i:0;s:4:"name";i:1;s:5:"email";i:2;
s:8:"password";s:9:"0*0hidden";a:2:{i:0;s:8:"password";i:1;s:14:"remember_token";};s:8:"0*0casts";a:1:{s:17:"email_verified_at";
s:8:"datetime";};s:13:"0*0connection";s:5:"mysql";s:8:"0*0table";s:5:"users";s:13:"0*0primaryKey";s:2:"id";s:10:"0*0keyType";s:3:"int";
s:12:"incrementing";b:1;s:7:"0*0with";a:0:{s:12:"0*0withCount";a:0:{s:10:"0*0perPage";i:15;s:6:"exists";b:1;
s:18:"wasRecentlyCreated";b:0;s:13:"0*0attributes";a:8:{s:2:"id";i:14;s:4:"name";s:16:"Ms. Lottie Kuhic";s:5:"email";
s:28:"ziemann.angelita@example.com";s:17:"email_verified_at";s:19:"2020-07-15 02:23:31";s:8:"password";
s:60:"$2y$10$92IXUNpkj00r0Q5byMi.Ye4oKoEa3Ro9llC/.og/at2.uheWG/igi";s:14:"remember_token";s:10:"RGdDGJI7mY";s:10:"created_at";
s:19:"2020-07-15 02:23:32";s:10:"updated_at";s:19:"2020-07-15 02:23:32";};s:11:"0*0original";a:8:{s:2:"id";i:14;s:4:"name";s:16:"Ms.
Lottie Kuhic";s:5:"email";s:28:"ziemann.angelita@example.com";s:17:"email_verified_at";s:19:"2020-07-15 02:23:31";s:8:"password";
s:60:"$2y$10$92IXUNpkj00r0Q5byMi.Ye4oKoEa3Ro9llC/.og/at2.uheWG/igi";s:14:"remember_token";s:10:"RGdDGJI7mY";s:10:"created_at";
```

Content in  
cache file



# Laravel Cache Driver

```
'stores' => [  
    'array' => [  
        'driver' => 'array',  
    ],  
    'database' => [  
        'driver' => 'database',  
    ],  
    'file' => [  
        'driver' => 'file',  
        'path' => storage_path('framework/cache/data'),  
    ],  
    'memcached' => [  
        'driver' => 'memcached',  
    ],  
    'redis' => [  
        'driver' => 'redis',  
    ],  
    'octane' => [  
        'driver' => 'octane',  
    ],  
]
```

❖ **Octane build by**





# ❖ Example case with each driver

	Mean	Median
No Cache	1170ms	1169ms
File	99ms	94ms
Database	141ms	138ms
Memcached	63ms	52ms
Redis	57ms	53ms



# Laravel cache methods

```
get($key)
```

```
many(array $keys)
```

```
put($key, $value, $seconds)
```

```
putMany(array $values, $seconds)
```

```
increment($key, $value = 1)
```

```
decrement($key, $value = 1)
```

```
forever($key, $value) {}
```

```
forget($key) {}
```

```
flush() {}
```

# ❖ Easy to implement

```
Cache::remember('active-posts', now()->addSeconds(30), function () {  
    return Post::active()->get();  
});
```

# ❖ Easy to implement

**#Exam1** `Cache::put('key', 'value', now()->addMinutes(10));`

**#Exam2** `$john = Cache::tags(['people', 'artists'])->get('John');  
$anne = Cache::tags(['people', 'authors'])->get('Anne');`

**#Exam3** `cache()->remember('users', $seconds, function () {  
 return DB::table('users')->get();  
});`

# ❖ Problems - How to handle & manage

- ❑ View caching problem
- ❑ Caching pagination problem
- ❑ Caching too much
- ❑ Cache result in chunk
- ❑ Know how cache method is good?
- ❑ .....

**Q&A**

**THANKS**