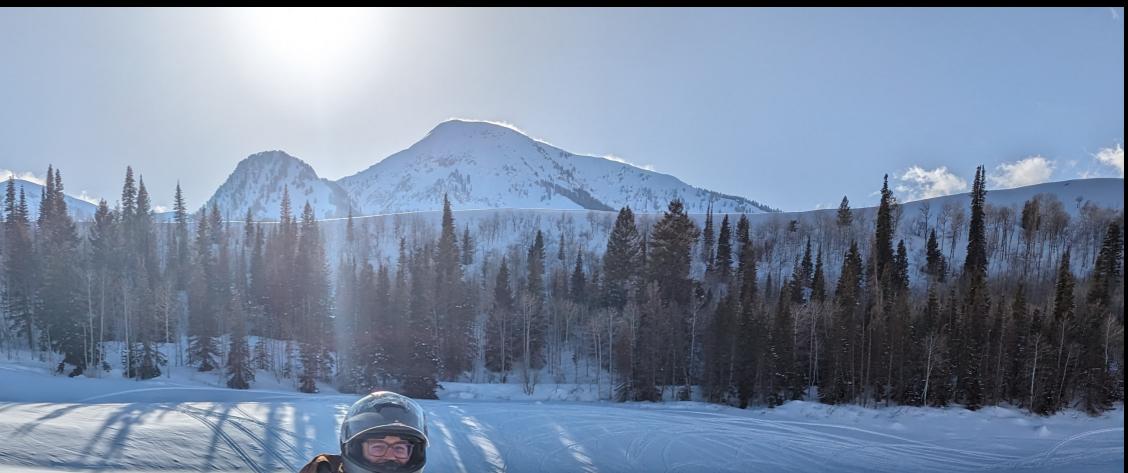


Naming Made Easier

Mark Niebergall
Dutch PHP 2024





😭 Naming is Hard!

- Just like regex

```
$regex = '/^(?!(?:(?:\x22?\x5C[\x00-\x7E]\x22?)|(?:\x22?[^\x5C\x22]\x22?)){255,})(?!(?:(?:\x22?\x5C[\x00-\x7E]\x22?)|(?:\x22?[^\x5C\x22]\x22?)){65,}@)(?:(?:[ \x21\x23-\x27\x2A\x2B\x2D\x2F-\x39\x3D\x3F\x5E-\x7E]+)|(?:\x22(?:[ \x01-\x08\x0B\x0C\x0E-\x1F\x21\x23-\x5B\x5D-\x7F])|(?:\x5C[\x00-\x7F]))*\x22))(?:\.(?:[ \x21\x23-\x27\x2A\x2B\x2D\x2F-\x39\x3D\x3F\x5E-\x7E]+)|(?:\x22(?:[ \x01-\x08\x0B\x0C\x0E-\x1F\x21\x23-\x5B\x5D-\x7F])|(?:\x5C[\x00-\x7F]))*\x22))*@(?:(?:(?:(?!.*[^.]{64,}))(?:(?:(?:xn--)?[a-z0-9]+(?:-[a-z0-9]+)*\.){1,126}){1,} (?:(?:[a-z][a-z0-9]*)|(?:(?:xn--)?[a-z0-9]+)) (?:-[a-z0-9]+)*)|(?:\[(?:IPv6:(?:(?:[a-f0-9]{1,4}(?::[a-f0-9]{1,4}){7})|(?:(?!.*[a-f0-9][:\]]){7,})(?:[a-f0-9]{1,4}(?::[a-f0-9]{1,4}){0,5}))?::(?:[a-f0-9]{1,4}(?::[a-f0-9]{1,4}){0,5})?)))|(?:(?:IPv6:(?:(?:[a-f0-9]{1,4}(?::[a-f0-9]{1,4}){5}):)|(?:(?:(?!(?:.*[a-f0-9]):){5,})(?:[a-f0-9]{1,4}(?::[a-f0-9]{1,4}){0,3})?::(?:[a-f0-9]{1,4}(?::[a-f0-9]{1,4}){0,3}:)?)))?:(?:25[0-5])|(?:2[0-4][0-9])|(?:1[0-9]{2})|(?:[1-9]?[0-9])))(?:\.(?:25[0-5])|(?:2[0-4][0-9])|(?:1[0-9]{2})|(?:[1-9]?[0-9]))){3}))\]))$/iD';
```

```
$matches = preg_match(  
    $regex,  
    $email  
) ;
```

 Objective

- Make naming things in code easier
- Establish patterns for naming



Overview

- Why naming is difficult
- Naming strategies

Why Naming is Difficult

Why Naming is Difficult

- Opinions

Why Naming is Difficult

- Inconsistencies

Why Naming is Difficult

- Many words to describe similar or same thing

Why Naming is Difficult

- Indecisiveness
 - Long term impact
 - Avoid future refactoring

Why Naming is Difficult

- Incomplete understanding
 - Changing or incomplete requirements
 - Undefined domain



Naming Strategies



Naming Strategies

- Naming is opinionated



Naming Strategies

- General Rules
- Logical Groups
- Domain Drive Design (DDD)
- Indicators
- Coding Standards
- Grammatical Terminology



Naming Strategies

- General Rules
 - Ask someone!
 - ▶ Discuss
 - ▶ Debate
 - ▶ Agree



Naming Strategies

- General Rules
 - Establish a pattern



Naming Strategies

- General Rules
 - Clear
 - ▶ \$iceCreamCone
 - Not \$c or \$icc
 - Concise
 - ▶ \$sprinkles
 - Not \$colorfulTastyDeliciousSprinklesOnIceCream
 - Accurate
 - ▶ \$carmel
 - Not \$syrup or \$liquidTopping



Naming Strategies

- General Rules
 - Group variable declarations
 - Class variables and constants at top of the class



Naming Strategies

- Logical Groups
 - Keep related classes together



Naming Strategies

- DDD
 - Logical categorization
 - Organized code base
 - Know where to find things



Naming Strategies

- DDD
 - Use Business terminology
 - Establish terminology dictionary



Naming Strategies

- DDD
 - High level Domains
 - ▶ All classes belong in subdomains*

The screenshot shows a file explorer window with a dark theme. The directory structure is as follows:

- src
- └─ IceCream
- └─ Cone
- └─ Waffle
- └─ © WaffleConeEntity.php
- └─ © WaffleConeRepository.php
- └─ © WaffleConeService.php

The files are represented by blue circular icons with a white '©' symbol.

* few exceptions



Naming Strategies

- Indicators
 - isX for bool
 - xld for unique identifiers



Naming Strategies

- Indicators
 - End of class name indicates class type
 - ▶ IceCreamRepository
 - ▶ IceCreamService
 - ▶ IceCreamEntity
 - ▶ IceCreamCollection
 - ▶ IceCreamFactory
 - ▶ FreezerAdapter
 - ▶ SoftServeFacade



Naming Strategies

- Indicators
 - End of class name indicates class type (continued)
 - ▶ ScooplceCreamWorker
 - ▶ PaymentLogger
 - ▶ IceCreamServeDto
 - ▶ IceCreamVo



Naming Strategies

- Coding Standards
 - PEAR standards are obsolete
 - ▶ `iProductId`
 - ▶ `$snake_case`
 - ▶ `private $_secret;`



Naming Strategies

- Coding Standards
 - PSR
 - ▶ PSR-1
 - ▶ PSR-12
 - PER
 - ▶ PER-CS
 - 1.0
 - 2.0



Naming Strategies

- Coding Standards
 - BowlInterface
 - IceCreamAbstract



Naming Strategies

- Coding Standards
 - \$iceCreamFlavor



Naming Strategies

- Grammatical Terminology
 - Noun: Person, place or thing (ice cream, venue)
 - Adjective: modify or describe a noun (fast, cold)
 - Verb: action (insert, update)



Naming Strategies

- Grammatical Terminology
 - Function names: verbNoun
 - ▶ insertIceCream
 - ▶ handleRequest

 Discussion

 Discussion

- Other naming strategies?
- Handling changing terminology?
- When to refactor/rename vs leave as-is?
- Resolve differences?
- Keeping names short enough yet clear?
- When to decide and go with naming?



Review



Review

- Why naming is difficult
- Naming strategies
 - Talk with others
 - Establish a pattern
 - Use best practices and standards

Mark Niebergall @mbniebergall



- PHP since 2005
- Masters degree in MIS
- Staff Software Engineer, Team Lead
- Vulnerability Management company (security scans)
- Utah PHP Co-Organizer, FIG Secretary
- CSSLP, SSCP Certified and Exam Developer
- Endurance sports, outdoors



Naming Made Easier

- Questions?



References

- Email regex: <https://emailregex.com/index.html>
- PHP-FIG PER CS: <https://www.php-fig.org/per/coding-style/>