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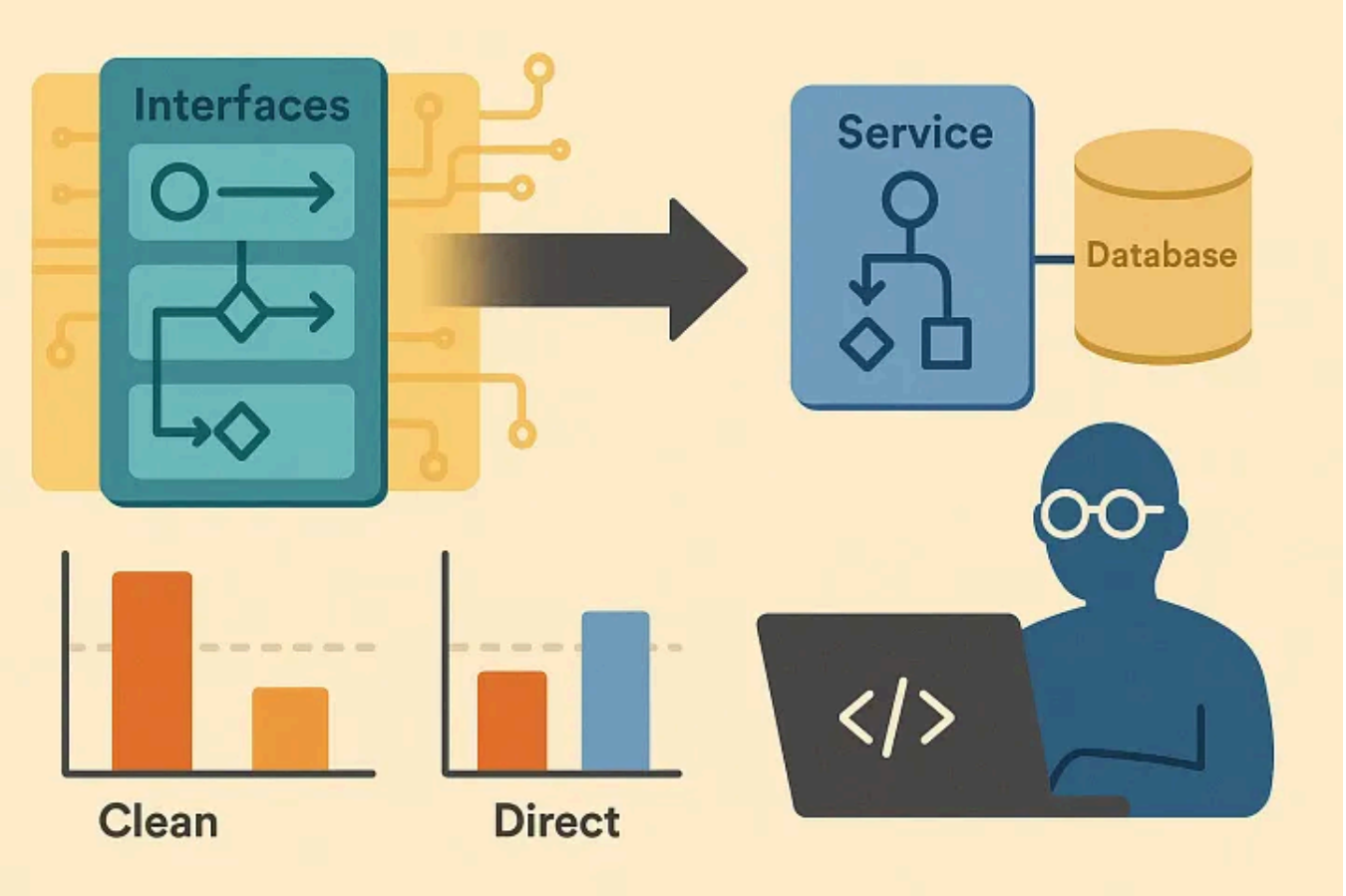
Why I Stopped Using Clean Code (And You Should Too)

4 min read · Aug 21, 2025

The Latency Gambler

After four years of building production systems and wrestling with legacy codebases, I've come to a controversial conclusion: the Clean Code movement has done more harm than good to our industry. Don't get me wrong , I used to be a zealot. I'd refactor perfectly working code just to make it "cleaner," create elaborate abstractions for simple problems, and judge colleagues who dared to write a 15-line method.



> *But real-world software development taught me harsh lessons that Robert Martin's book never prepared me for.*

The Over-Abstraction Trap

Clean Code preaches that abstraction is always good. More layers, more interfaces, more indirection. Here's what I used to write:

```
// "Clean" version - looks professional, right?
interface PaymentProcessor {
  process(amount: Money): Promise<PaymentResult>;
}

class StripePaymentProcessor implements PaymentProcessor {
  async process(amount: Money): Promise<PaymentResult> {
    return this.gateway.charge(amount);
  }
}
class PaymentService {
  constructor(private processor: PaymentProcessor) {}

  async processPayment(order: Order): Promise<void> {
    const result = await this.processor.process(order.total);
    if (!result.isSuccess) {
      throw new PaymentFailedException(result.error);
    }
```

```
  }
}
```

Versus what I write now:

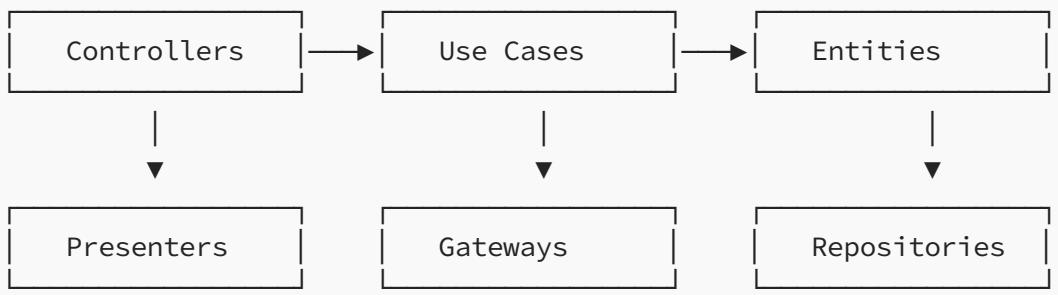
```
// Pragmatic version
class PaymentService {
  async processStripePayment(order: Order): Promise<void> {
    const result = await stripe.charges.create({
      amount: order.total.cents,
      currency: 'usd',
      source: order.paymentToken
    });

    if (!result.paid) {
      throw new Error(`Payment failed: ${result.failure_message}`);
    }
  }
}
```

> *The second version is immediately understandable. A junior developer can debug it in seconds. The first version? Good luck tracing through three layers of abstraction when Stripe's API changes.*

Architecture Reality Check

Here's how Clean Code advocates think systems should look:



Here's what actually works in most applications:

> *Three layers. That's it. Every successful startup I've worked with follows this pattern. The ones that tried Clean Architecture? They're still refactoring while their competitors ship features.*

The Performance Penalty

Clean Code's obsession with small functions and excessive abstraction has real costs. I benchmarked this simple operation on Node.js 20:

```
// Clean Code approach
function calculateTotal(items) {
  return items
    .map(item => item.price)
    .filter(price => isValid(price))
    .reduce((sum, price) => sum + price, 0);
}

function isValid(price) {
  return price > 0;
}
// Direct approach
function calculateTotalDirect(items) {
  let total = 0;
  for (let i = 0; i < items.length; i++) {
    if (items[i].price > 0) {
      total += items[i].price;
    }
  }
  return total;
}
```

Benchmark results (1M items):

- Clean approach: 847ms
- Direct approach: 23ms

> *That's a 37x performance difference. In a checkout flow processing thousands of transactions per minute, this matters.*

When "Readable" Code Isn't

Clean Code claims shorter functions are more readable. But context switching between functions destroys comprehension. Compare these:

```
# "Clean" version
def process_user_registration(user_data):
    validate_user_data(user_data)
    user = create_user_entity(user_data)
    save_user_to_database(user)
    send_welcome_email(user)
    log_registration_event(user)

def validate_user_data(data):
    if not data.get('email'):
        raise ValidationError('Email required')
    # ... more validation
def create_user_entity(data):
    return User(
        email=data['email'],
        password=hash_password(data['password'])
    )
# ... 3 more functions
```

Versus:

```
# Pragmatic version
def process_user_registration(user_data):
    # Validate input
    if not user_data.get('email'):
        raise ValidationError('Email required')
    if not user_data.get('password'):
        raise ValidationError('Password required')

    # Create user
    user = User(
        email=user_data['email'],
        password=bcrypt.hashpw(user_data['password'].encode(), bcrypt.gensalt()
    )

    # Save to database
    db.session.add(user)
    db.session.commit()
```

```
    # Send welcome email
    email_service.send_template('welcome', user.email, {'name': user.name})

    # Log the event
    logger.info(f'New user registered: {user.email}')
```

> *The second version tells a complete story. I can understand the entire flow without jumping between functions. When debugging a registration failure at 2 AM, which would you prefer?*

The Pragmatic Alternative

After years of fighting over-engineered codebases, here's what I've learned works:

1. **Write boring code** — If a junior developer can't understand it in 30 seconds, it's too clever
2. **Optimize for debugging** — Code is read during crises, not casual browsing
3. **Embrace redundancy** — DRY is less important than locality of behavior
4. **Measure before abstracting** — Most abstractions solve problems you don't have

Real-World Evidence

The most successful codebases I've maintained follow these principles:

```
GitHub (Ruby on Rails):     Monolithic, straightforward
Stack Overflow (ASP.NET):   Pragmatic, performance-focused
Shopify (Ruby):             Modular but not over-abstracted
```

> *Meanwhile, every project that strictly followed Clean Code principles became an unmaintainable mess of interfaces and abstractions.*

Conclusion

Clean Code isn't evil, but treating it as gospel is dangerous. It optimizes for the wrong things: making code look professional rather than making it work reliably. After four years of maintaining production systems, I've learned that readable, performant, debuggable code matters more than architecturally pure code.

> *Your future self, debugging a critical issue at 3 AM, will thank you for writing obvious code instead of clean code.*

The best code isn't clean , it's pragmatic.

Clean Code | Design Patterns | Software Development | Programming | Software Engineering

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Responses (69)

Bgerby

What are your thoughts?

Wchasroth
Aug 21

OK, them's fightin' words! :-)

Seriously, though, the whole argument is a "strawman" logical fallacy. Any methodology taken to ridiculous extremes will be bad. So what?

But when you say "Clean Code preaches that abstraction is always good", that's... more

415 5 replies Reply

Luiz Armesto
Aug 24

> I'd refactor perfectly working code just to make it "cleaner," create elaborate abstractions for simple problems, and judge colleagues who dared to write a 15-line method.

At least you made it clear from the beginning of the post that you had no idea what you were doing.

174 2 replies Reply

Bruce Rosner
Aug 24

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