

# FIVE COUNTER- INTUITIVE FACTS ABOUT PROGRAMMING

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**Adding more  
developers can slow  
down software delivery**

Adding more people to a software project will typically slow it down due to the increased complexity and communication overhead.

## **Brooks' Law**

New team members of a software project often slow down productivity as their training consumes time and pulls existing developers away from their tasks.

## **Ramp-up time**

# 2

## **Less is more: fewer lines of codes is often better**

Simpler, shorter code  
enhances readability, easing  
future developments and  
reducing potential for errors.

**Less Code, More Clarity**

Concise and modular code  
not only speeds up execution  
but also fosters component  
reusability across projects.

## **Efficiency and Reusability**

# 3

## **Premature optimization is the root of all evil in programming**



*“Programmers waste enormous amounts of time thinking about, or worrying about, the speed of noncritical parts of their programs”*

**Donald E. Knuth**

# 9 times out of 10: Forget small efficiencies

Premature optimization  
leads to complex, hard-to-  
maintain code without  
delivering substantial  
benefits.

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**Complex  
implementations  
are almost never good**

The simplest explanation or hypothesis is often the best one....

## Occam's Razor

... so is the simplest code

## Always simplify

Lean towards the simplest solution that solves the problem effectively.

Also less complexity often leads to slimer, more maintainable code.

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**Don't plan too much  
time buffer for your  
development**

*“Work expands to fill the  
time available for its  
completion.”*

## **Parkinson's Law**

## Hofstadter's Law

*“It always takes longer than  
you expect, even when you  
take into account  
Hofstadter's Law.”*



## Overcoming these 2 laws

Set the deadline before you start planning a project ...

... and work backwards, pruning out the secondary and lengthy ideas.



**Bonus:**  
**Specifications**  
**always change**

## Specifications uncertainty

As projects progress and stakeholders gain more information, the initial uncertainty surrounding requirements often leads to the realization of the need for adjustments.

Use Agile methodologies, such as Scrum to gain flexibility and adaptability during your programming projects.

**Embracing the change**



## Stakeholder communication

Schedule regular meetings, feedback sessions, and clear documentation to help manage changes timely and effectively.