Cognitive Load and Programming

1 minds.md/zakirollins/cognitive

- Cognitive Load → how much we need to think to understand and complete a Task
- We have limited working Memory: The more there is to keep in mind, the higher the load and the confusion.
- Tasks have an inherit complexity, nothing we can do about that part. But we can reduce the extra complexity sorrounding them..

Examples of extra complexity:

- Ifs with multiple complex conditions
- Complex Inheritance
- Global Variables updated in different places
- Shallow and non-descriptive methods
- Many concatenated methods or methods as parameters
- Too many dependencies with little use

```
if (condition1 && (condition2 || condition3)
    && !condition4){
```

⇒ Clearer Options

- Nested Ifs
- Intermidiate variables for the conditions

- Abstraction & Methods should hide complexity not simply redirect it or split it.
- Smart and clever implementations usually make things more complex for anyone not familiar with that decision. That clever Trick is something else to learn and keep in mind.
- Being familiar with the code doesn't mean it is clear or well written, just That you currently know your way around your mess
  → This way you might end up with "stopid" looking code, but a code that people can work with!