Anton Martyniuk • Following

Microsoft MVP | Helping 30K+ Software Engineers Improve .NET Skills and Craft Better Software | Techni...

View my newsletter

16h • 🌐

SOLID – the only roadmap you need to build better software

Whether you write in C#, Java, TypeScript, or any other language - these rules make your codebase better.

Single Responsibility - One job. One reason to change

Open / Closed - Extend ✅, modify ❌

Liskov Substitution - Subclasses must act like their base.

Interface Segregation - Small, purpose-built contracts.

Dependency Inversion - Depend on abstractions, not concretes.

🟧 1. **Single Responsibility Principle** (**SRP**)

A class, module, or function should do one job and have one reason to change. Logging, database persistence, sending emails — not all three.

Smaller pieces = easier testing & easier maintanance.

🟧 2. **Open / Closed Principle** (**OCP**)

Your code should be open for extension (add new behavior) but closed for modification (core stays intact).

Extract an interface, use decorators or inheritance to plug new features without touching working code.

🟧 3. **Liskov Substitution Principle** (**LSP**)

If Child extends Base, every place that expects Base must be happy with Child.

Penguins can't fly? Then **Bird.Fly**() doesn't belong in class Bird, make a FlyingBird interface instead.

🟧 4. **Interface Segregation Principle** (**ISP**)

Expose focused interfaces (IReadableStream, IWritableStream) rather than bloated "god" interfaces.

Clients consume only the methods they need — no more, no less.

🟧 5. **Dependency Inversion Principle** (**DIP**)

High-level modules shouldn't import low-level details. Both depend on abstractions (ILogger, IPaymentGateway).

Switch implementations (console ↔ Seq, mock ↔ real) without touching business logic and dependent classes.

Start simple with Single Responsibility and Dependency Inversion. Add other SOLID principles as the code grows. Your future self (and your teammates) will thank you.

Which principle do you struggle with the most?

✅ If you like this post - **repost** to your network and **follow** me

✅ 10 seconds to join **6,000**+ readers in my free newsletter to improve your .NET skills and learn how to craft better software: https://lnkd.in/gKzH8232