



مهم جدأ

هذا الملف للمراجعة السريعة واخذ الملاحظات عليه فقط ،لانه يحتوي على اقل من 20٪ مما يتم شرحه في الفيديوهات الاستعجال والاعتماد عليه فقط سوف يجعلك تخسر كميه معلومات وخبرات كثيره

يجب عليك مشاهدة فيديو الدرس كاملا

لاتنسى عمل لايك ومشاركة القناة لتعم الفائدة للجميع لا تنسونا من دعائكم

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SOLID PRINCIPLES

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Interface Segregation Principle (ISP)





5 Solid Principles







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SOLID PRINCIPLES

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Analogies



Analogy 1: Restaurant Menu.



Imagine a restaurant menu where all the food and drink options are on one page. It includes breakfast, lunch, dinner, snacks, desserts, and beverages. If you only want breakfast, you'd have to sift through a lot of irrelevant options.



Now Imagin:









Now imagine the same restaurant with separate menus for each category: one for breakfast, one for drinks, etc. This way, you see only what's relevant to you.



Interface Segregation Principle (ISP)

In software, ISP works similarly by ensuring that clients only interact with the specific functionality they need, without being forced to deal with unnecessary details.



Analogy 2: Gym Membership.



Imagine a gym where everyone is forced to buy an all-inclusive membership, covering <u>swimming</u>, <u>yoga</u>, <u>weightlifting</u>, and <u>aerobics</u>.

Even if you only want to lift weights, you're stuck paying for services you don't use.



Now Imagin:









Now, imagine a gym where you can choose a plan tailored to your needs just weights or just swimming. You get exactly what you need without extras.



Interface Segregation Principle (ISP)

ISP follows this logic by creating smaller, more specific interfaces so that clients use only the methods they need.



Analogy 3: All-In-One Remote.



Imagine you have an all-in-one remote that controls your <u>TV</u>, <u>sound</u> <u>system</u>, <u>DVD player</u>, and <u>even lights</u>. However, if all you want to do is change the TV channel, it can be overwhelming to use a remote filled with buttons for features you don't need.



Now Imagin:



Now imagine you have separate remotes for each device each one has just the buttons needed for that specific task.



Interface Segregation Principle (ISP)

The ISP is like having those separate remotes each interface should offer only what the client needs, not a bloated list of unrelated methods. It's about breaking big, bulky interfaces into smaller, focused ones so that clients can use just what they need.



What is ISP?

- Clients should not be forced to depend on interfaces they do not use.
- Instead of one large interface, you should break down the interface into smaller, more specific ones.
- This allows clients to depend only on the methods they need, rather than being forced to implement unused methods.



