

Week 7 Research

1. Research the SOLID principles of Object Oriented Programming (OOP) as introduced by Robert Martin

S – Single-Responsibility Principle

O – Open Closed Principle

L – Liskov Substitution Principle

I – Interface Segregation Principle

D – Dependency Inversion Principle

The purpose of the SOLID principles is to formalize and organize your program. These principles will result in a flexible, maintainable, correct program, and makes your code easier to read and follow.

Single Responsibility Principle: “Every class should have only one responsibility.”

- Organized; easy to understand; classes written quickly; easy to test changes.

Open Closed Principle: “Developers should be able to extend class behavior, without modifying it.”

- Interfaces clear and well defined; reduces amount of testing; documentation and comments more likely to remain accurate and unchanged.

Liskov Substitution Principle: “Derived classes must be substitutable for their base classes.”

- Easy to understand interfaces; inheritance model is clear, obvious, and simplifies code; reduces amount of testing required.

Interface Segregation Principle: “Many client-specific interfaces are better than one general-purpose interface.”

- Clean interface; avoids unnecessary work; inheritance model is easy to explain and understand; avoids generating cluster of corner case test cases.

Dependency Inversion Principle: “Depend on abstractions, not on concretions.”

- Promotes modularity between components; eliminates necessity to change code in many places; reduces testing required; more change resistant.

2. What are the wildcards in MySQL? How are they useful?

The wildcards of MySQL are % and _. Where % represents zero or more characters and _ represents a single character and can have different uses depending on how you use them

%kevin% would take in my name and would select based on that name

Kevin% would select starting with the name Kevin

_evin would select starting with any character followed by everything after _.

3. What is your favorite thing you learned this week?

My favorite thing I learned this week is getting hands on using DBeaver and Maven in eclipse. There were a lot of new terms this week and it was a bit confusing when trying to take it all in. Definitely getting hands on with those definitely helped me understand the material a bit more.

Citing

“MySQL Wildcards.” *MySQL Wildcard Characters*,

https://www.w3schools.com/mysql/mysql_wildcards.asp#:~:text=MySQL%20Wildcards,-%E2%9D%AE%20Previous%20Next&text=A%20wildcard%20character%20is%20used,specified%20pattern%20in%20a%20column. Accessed Oct 22. 2022

Novotny, Jeff. “SOLID Principles of Object-Oriented Programming.” *Linode Guides & Tutorials*, Linode, 4 Mar. 2022, <https://www.linode.com/docs/guides/solid-principles-programming/>. Accessed Oct 22. 2022