visual programming

Modularity

Bachelor of Information Systems
Institut Teknologi Del

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Learning Objective(s)

This material should address the following question(s).

- What is modularity?
- Does modularity make better solutions?

Discussion Point

Modularity:
The Core Concepts.

Common Processes in Resto

taking order

cooking

serving

having meal

payment

Each process is independent from the others.

Traditional Resto

cooking

having meal

taking order

serving

payment

Convenience Resto

Modular processes, where a process is **independent** to the others.
A process may be **changed** or **replaced** without affecting others.

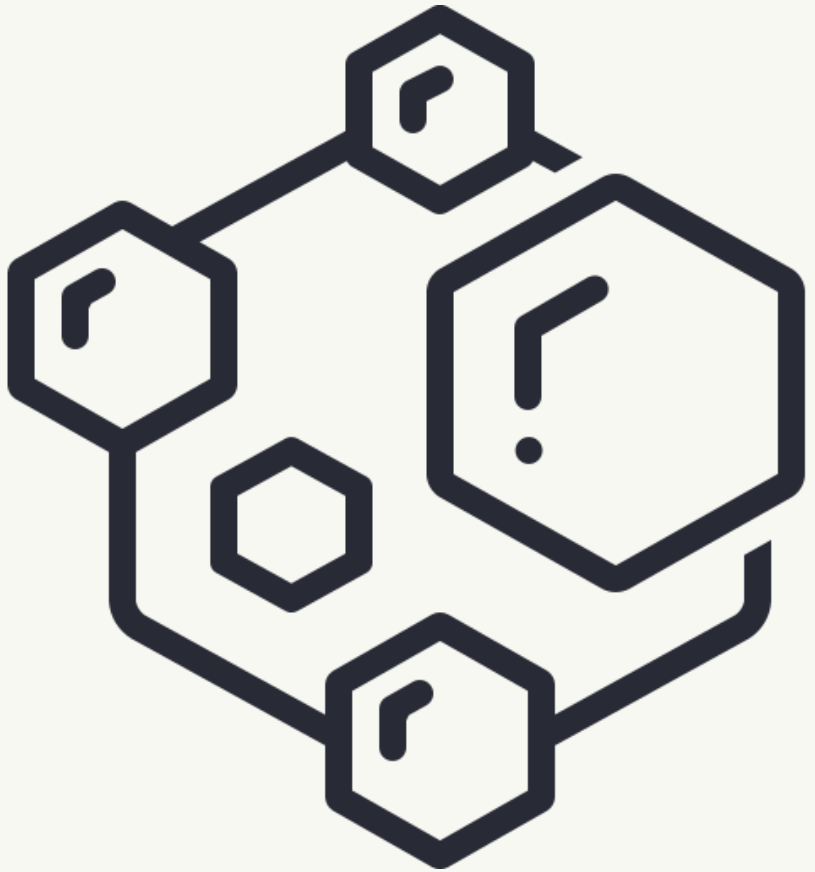
e.g. adding a new payment method or new dishes into the menu
should not affect how new orders are taken.

Definition

Modularity *indicates the degree to which densely connected compartments within a system can be decomposed into smaller independent units.*

Modularity

- Benefits:
  - Higher degree of flexibility.
  - More reusable.
  - Better maintainability.
  - Cost-effective.
  - Chance for scalability.



Modular Solution

- In programming, these modular units are written as:
  - Functions/procedures.
  - Classes.
  - Modules/libraries/packages.

Final **Thoughts.**

Conclusion

1. Modularity is about an ability to decomposing a solution into smaller independent units.
2. It brings a handful of benefits.
   - Flexibility, reusability, maintainability, and reducing cost.

References

Wassberg, J. (2020). Computer Programming for Absolute Beginners. Packt.

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