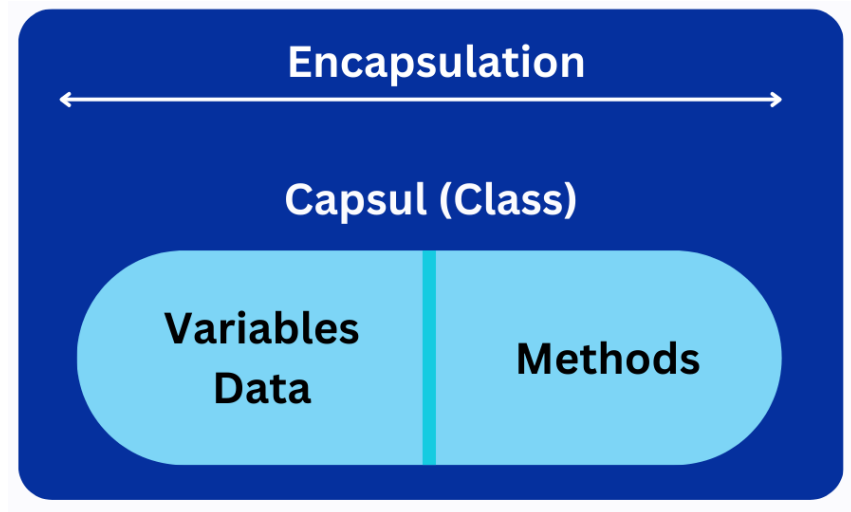


Encapsulation in Java



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What is Encapsulation?

- One of the fundamental OOP concepts
- Wrapping data (variables) and methods into a single unit (class)
- Also known as **data hiding**
- **Fields are made private**
- **Access is provided through public methods (getters/setters)**

Benefits of Encapsulation

- Protects internal state of the object
- Maintains control over the data
- Increases code maintainability and flexibility
- Improves security and prevents misuse
- Easier to test and debug individual components

Summary

- Use **private** to hide fields
- Use **public** methods to control access
- Encapsulation makes code secure, reusable, and easier to manage
- Keywords: **private, public, get, set**

Student Activity

- Create a class 'Employee' with:
 - fields: name, salary, department
 - getter and setter methods
 - Set values in main method and display output