

# oops through java

## oops

1. datahiding
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## 1 data hiding

Data hiding is a software development technique specifically used in object-oriented programming (OOP) to hide internal object details (data members). Data hiding ensures exclusive data access to class members and protects object integrity by preventing unintended or intended changes by declaring data member variable as private we can achieve

## 2 abstraction

Hiding internal implementation and just highlighting a set of services what we are offering is the concept of abstraction

- security because we are not highlighting our internal implementation
- By using abstraction, we can separate the things that can be grouped to another type.
- Frequently changing properties and methods can be grouped to a separate type so that the main type need not undergo changes. This adds strength to the OOAD principle - "Code should be open for Extension but closed for Modification".
- Simplifies the representation of the domain models.

### 3 encapsulation

the process of binding data members and corresponding methods into a single unit is nothing but encapsulation

```
class Test
{
    private double balance;
    public double get balance()
    {
        ....
        \mbox{    return balance;}
    }
    public void set balance (double balance)
    {
        validation ..
        this.balance=balance;
    }
}
```