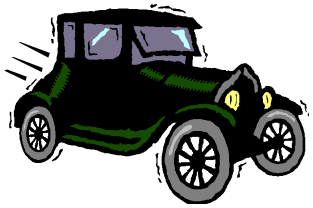
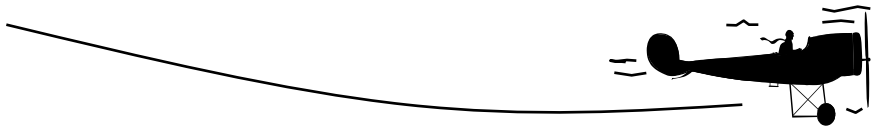




Architecture des Systèmes d'Information

Software Architecture

Traduction en cours

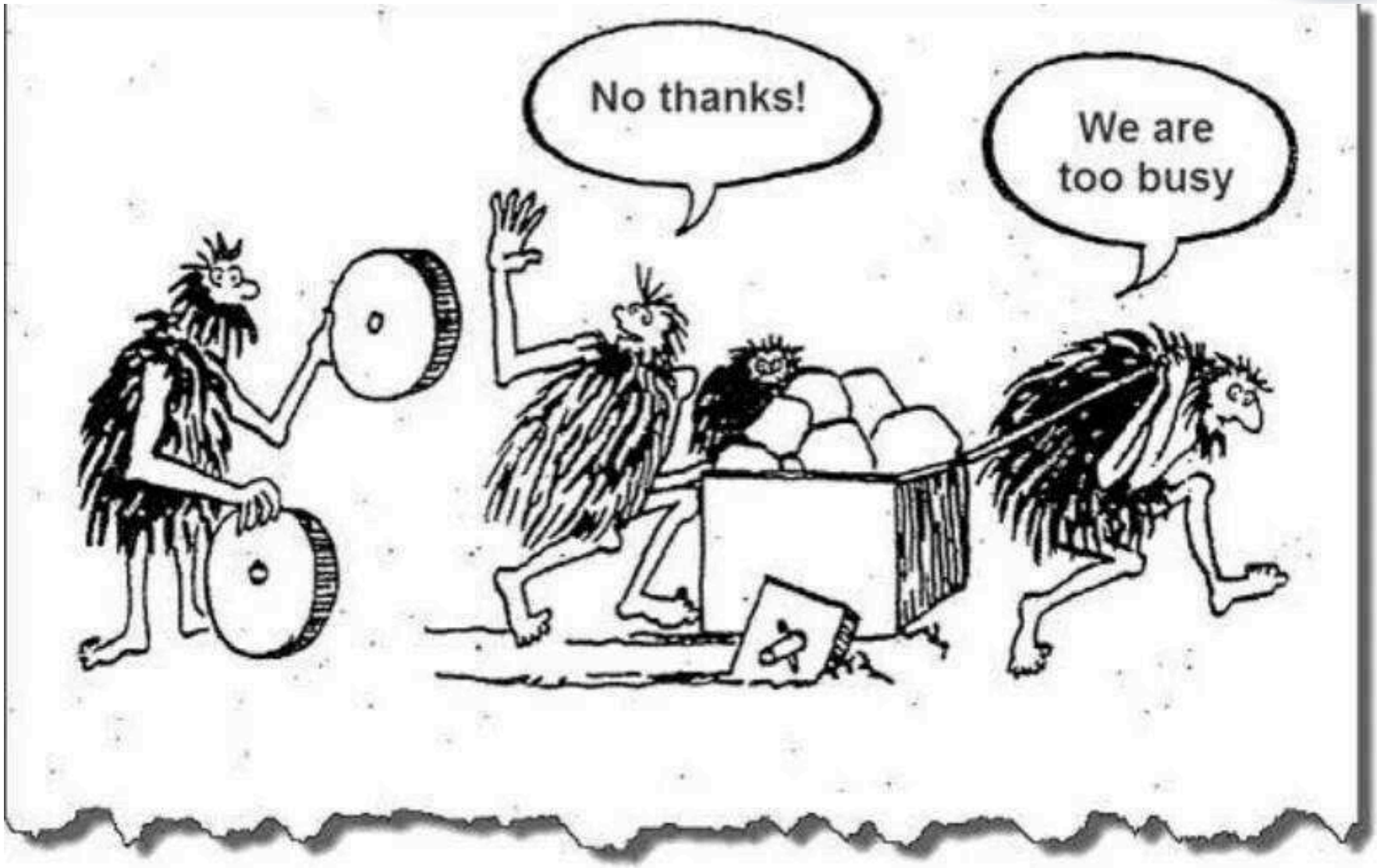
Changes Request : flexible solution

Initial Request

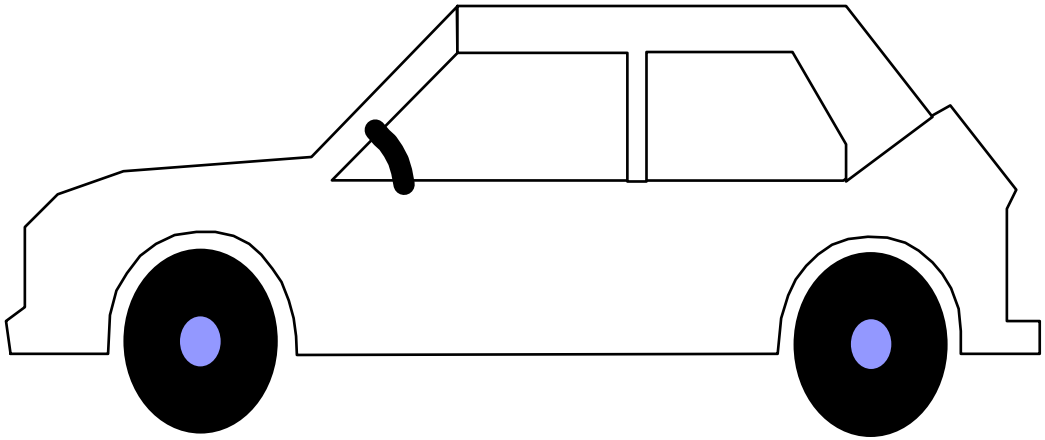
1 Day After

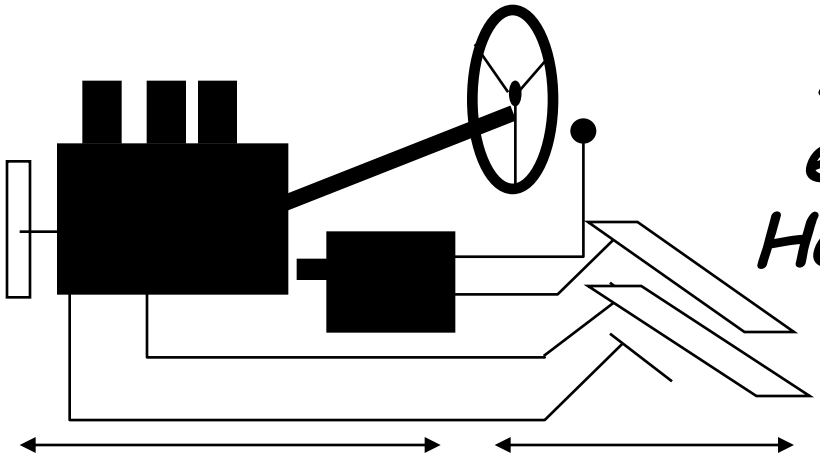
1 Week After

Changes Request : flexible solution


No thanks!
We are too busy

Object analogy





A driver doesn't care of engine's internal working. He only knows the interface

The problem is in the User Input

Replace case and enum by object .

```
enum Color {

    Black,
    Brwn,
    Red,
    Orange,
    Yellow,
    Green,
    Blue,
}
```

structural switch

```
static void printsColor(int Value) {

        switch(Value) {

                case Black :
                        processing 1
                case Brown:
                        processing 2
                case Red:
                        processing 3
                case Orange:
                       processing 4
                case Yellow:
                        processing 5
                case Green:
                        processing  6
                case Blue:
                        processing  7
        }
}
```

structural switch

```
static void flightUpdate(int status) {
        switch(status) {
                case NIL_EXIT_STATE :
                        processing 1
                case FLIGHT_ACTIVATION_PROPOSAL:
                        processing 2
                case FLIGHT_ACTIVATION_ALARM:
                        processing 3
                case FLIGHT_ACTIVATION_CONFIRMED:
                        processing 4
                case HANDOVER_TRANSFERED,
                        processing 5
                case COORDINATION_TERMINATED,
                        processing  6
                case  UNKNOWN_EXIT_STATE
                        processing  7
        }
}
```

Software Module A

```
static void flightUpdate(int status) {
        switch(status) {
                case NIL_EXIT_STATE :
                        processing 1
                case FLIGHT_ACTIVATION_PROPOSAL:
                        processing 2
                case FLIGHT_ACTIVATION_ALARM:
                        processing 3
                case FLIGHT_ACTIVATION_CONFIRMED:
                        processing 4
                case HANDOVER_TRANSFERED,
                        processing 5
                case COORDINATION_TERMINATED,
                        processing  6
                case  UNKNOWN_EXIT_STATE
                        processing  7
        }
}
```

Software Module B

```
atic void flightUpdate(int status) {
        switch(status) {
                case NIL_EXIT_STATE :
                        processing 1
                case FLIGHT_ACTIVATION_PROPOSAL:
                        processing 2
                case FLIGHT_ACTIVATION_ALARM:
                        processing 3
                case FLIGHT_ACTIVATION_CONFIRMED:
                        processing 4
                case HANDOVER_TRANSFERED,
                        processing 5
                case COORDINATION_TERMINATED,
                        processing  6
                case  UNKNOWN_EXIT_STATE
                        processing  7
        }
}
```

Software Module C

Software Module D

Software Module E

```
static void flightUpdate(int status) {
        switch(status) {
                case NIL_EXIT_STATE :
                        processing 1
                case FLIGHT_ACTIVATION_PROPOSAL:
                        processing 2
                case FLIGHT_ACTIVATION_ALARM:
                        processing 3
                case FLIGHT_ACTIVATION_CONFIRMED:
                        processing 4
                case HANDOVER_TRANSFERED,
                        processing 5
                case COORDINATION_TERMINATED,
                        processing  6
                case  UNKNOWN_EXIT_STATE
                        processing  7
        }
```

Replace case and enum by object .

```
enum Color {

    Black,
    Brwn,
    Red,
    Orange,
    Yellow,
    Green,
    Blue,
    NewColor,
}
```

structural switch

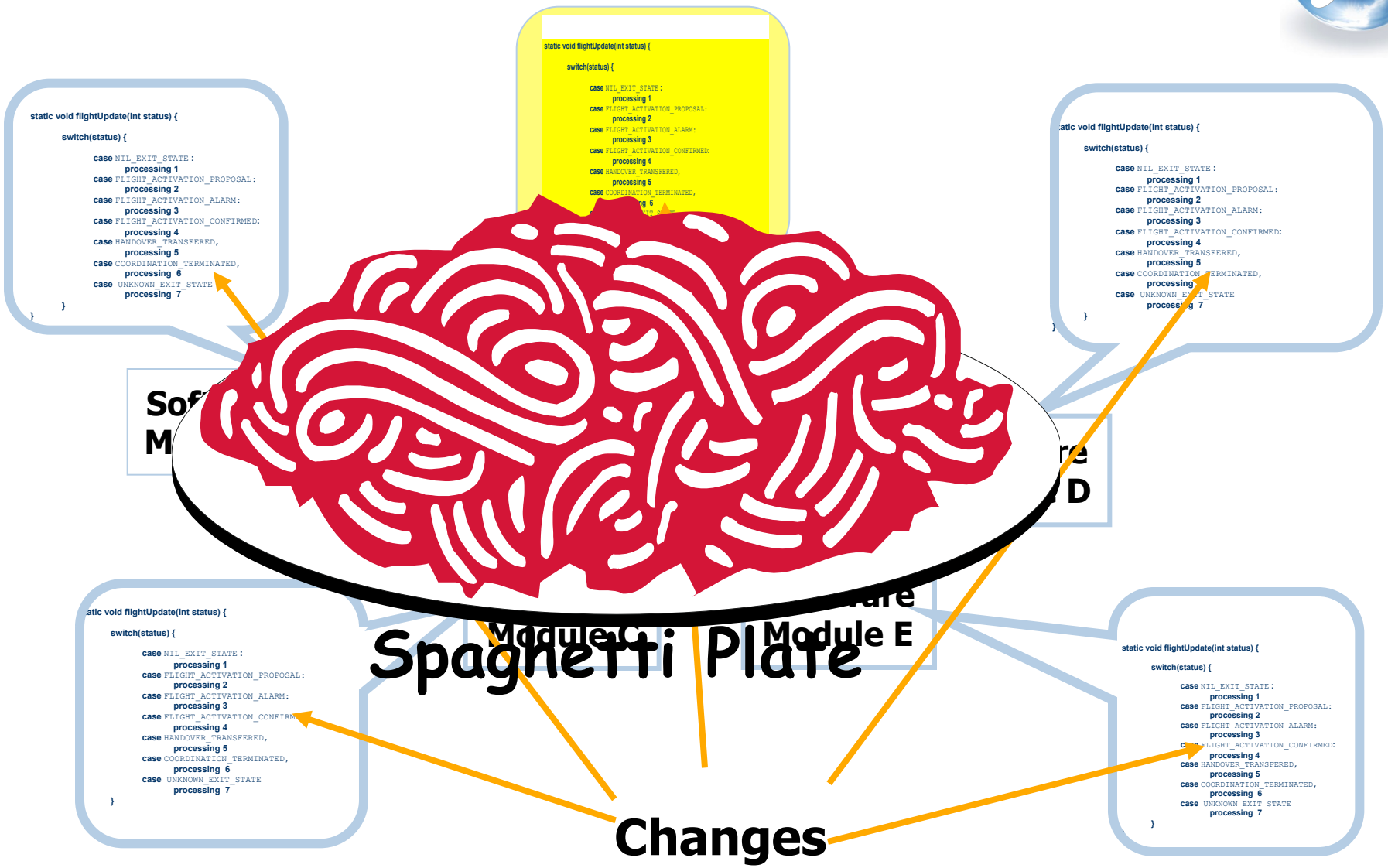
```
static void printsColor(int Value) {

        switch(Value) {

                case Black :
                        processing 1
                case Brown:
                        processing 2
                case Red:
                        processing 3
                case Orange:
                       processing 4
                case Yellow:
                        processing 5
                case Green:
                        processing  6
                case Blue:
                        processing  7
                case NewColor,
                        processing  7

        }
}
```

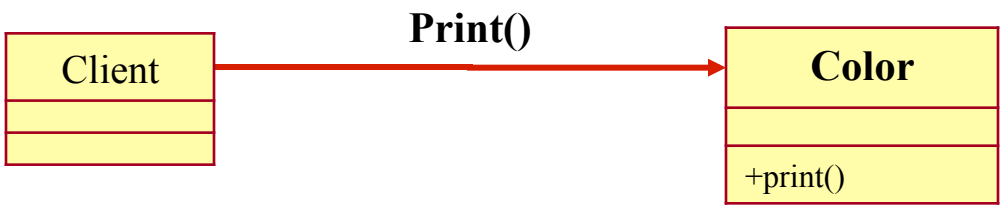
structural switch



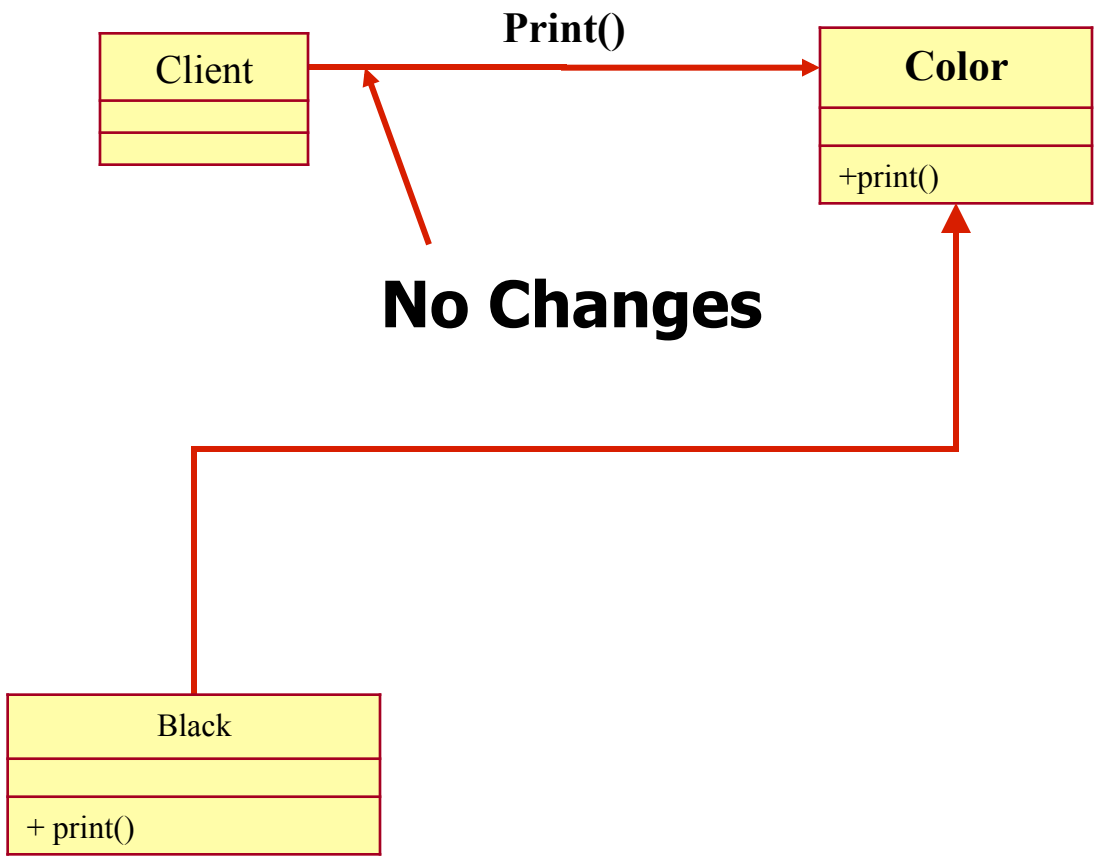
The object solution

- Polymorphism

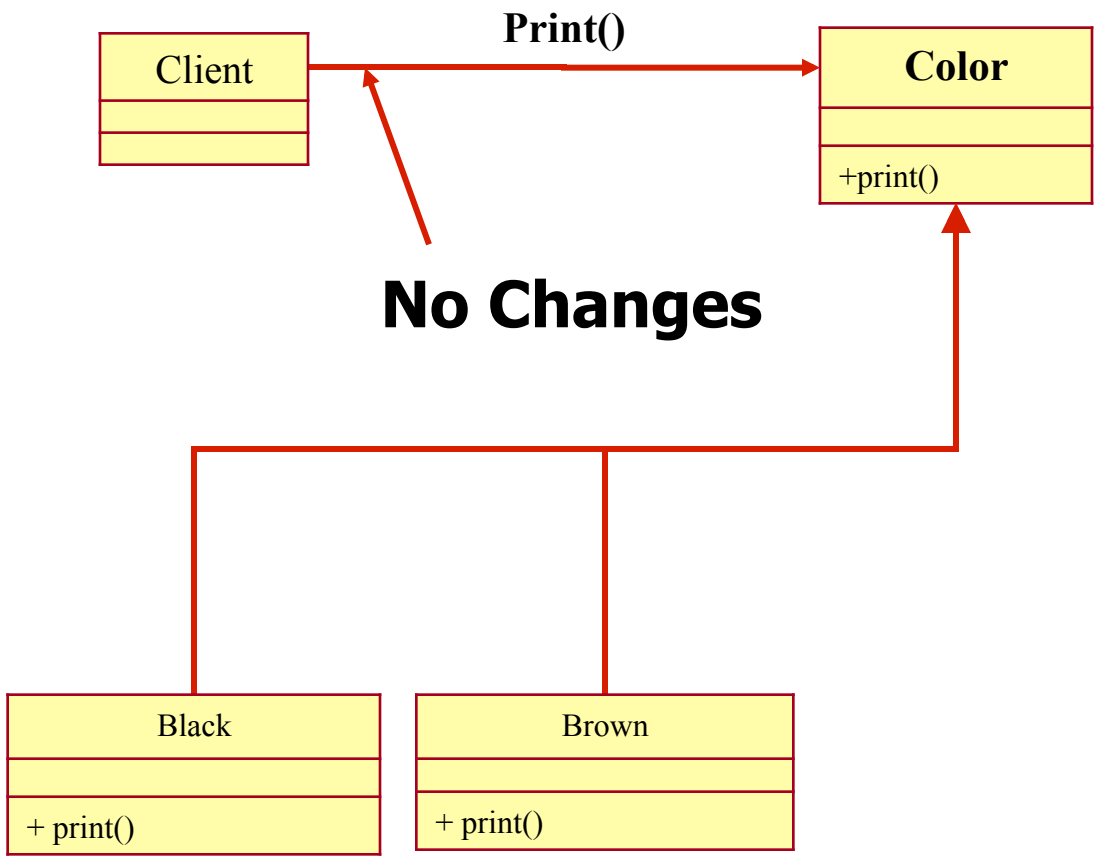
Polymorphism



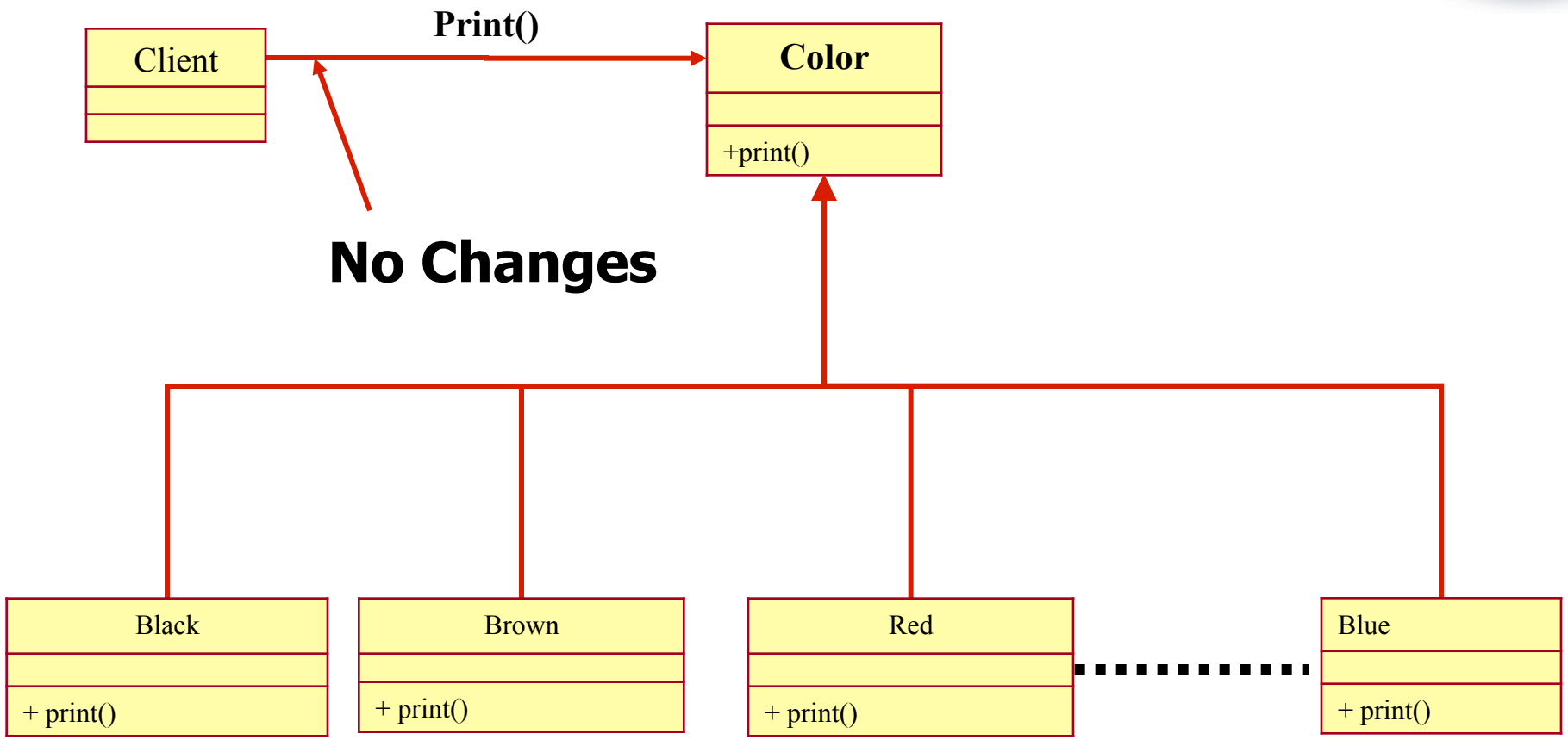
Polymorphism



Polymorphism



Polymorphism



Polymorphism