



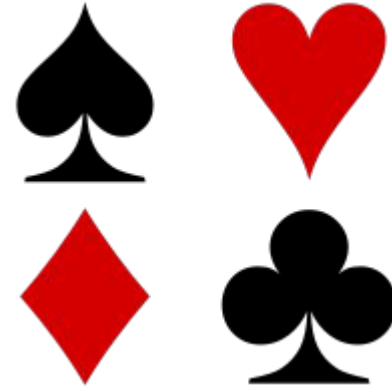
TECHNISCHE
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Welcome.TU.code

Enumerations

Motivation

Consider a french deck of cards.



How can we distinguish the different suits?

Naive Method

```
public class Card {  
    public static final int CLUBS = 0;  
    public static final int DIAMONDS = 1;  
    public static final int HEARTS = 2;  
    public static final int SPADES = 3;  
  
    private int suit;  
  
    public void setSuit(int suit) {  
        this.suit = suit;  
    }  
}
```

Enumeration

```
public enum Suit {  
    CLUBS, DIAMONDS, HEARTS, SPADES  
}
```

```
public class Card {  
  
    private Suit suit;  
  
    public void setSuit(Suit suit) {  
        this.suit = suit;  
    }  
}
```

How to use an enum

compare using ==

```
if( this.suit == Suit.CLUBS ){ ...
```

Switch - Case

```
switch (suit) {  
    case Suit.CLUBS:  
        code;  
        break;  
    case Suit.SPADES:  
        code;  
        break;  
    ...  
    default:  // if it isn't one of the above  
        code;  
        break;  
}
```

Using enum like a class

```
public enum Coin {
    PENNY(1), NICKEL(5), DIME(10), QUARTER(25);

    private int cents;
    private Coin(int cents) {
        this.cents = cents;
    }
    public int getCents() { return cents; }
    public int perDollar() { return 100 / cents;}
    public String toString() {
        return super.toString() + " (" + cents + "c)";
    }
}
```

Christmas Project

