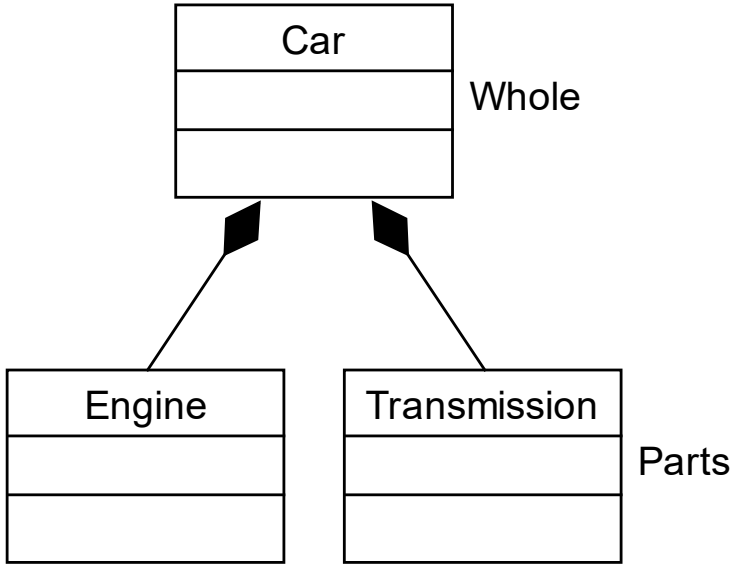
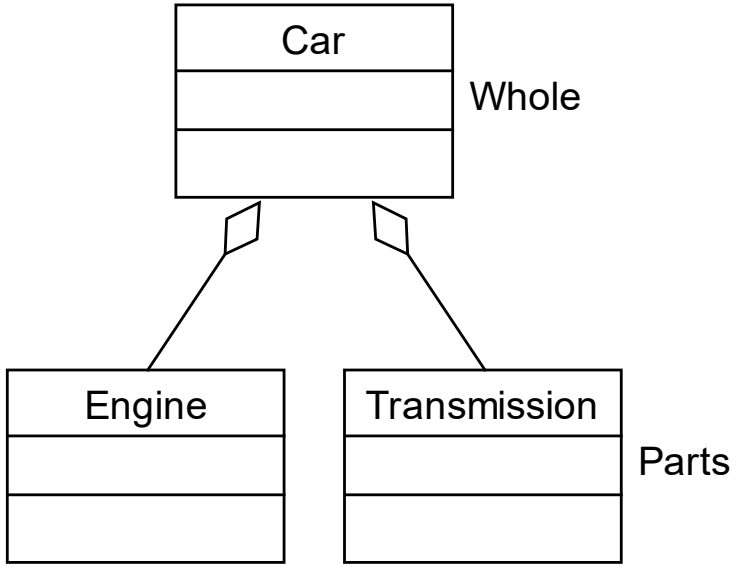
# MULTIPLICITY

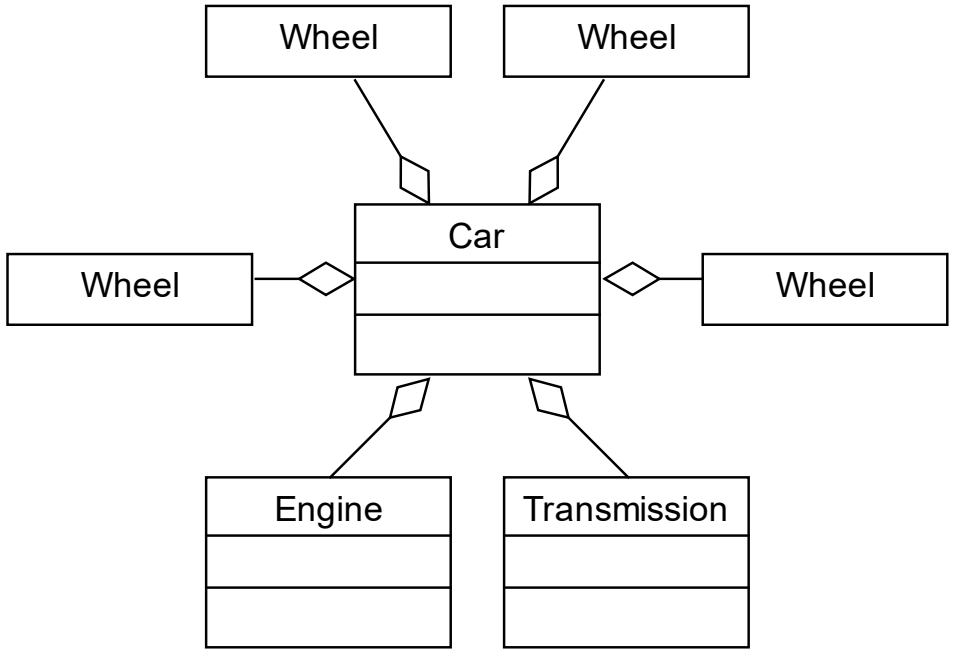
Representing many identical part classes

Delroy A. Brinkerhoff

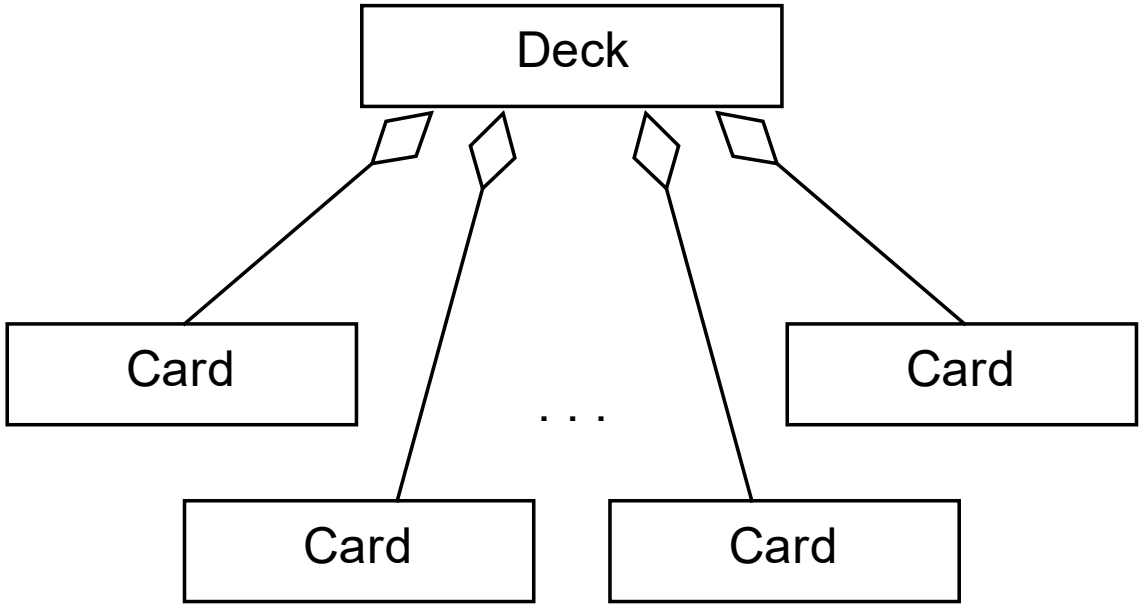


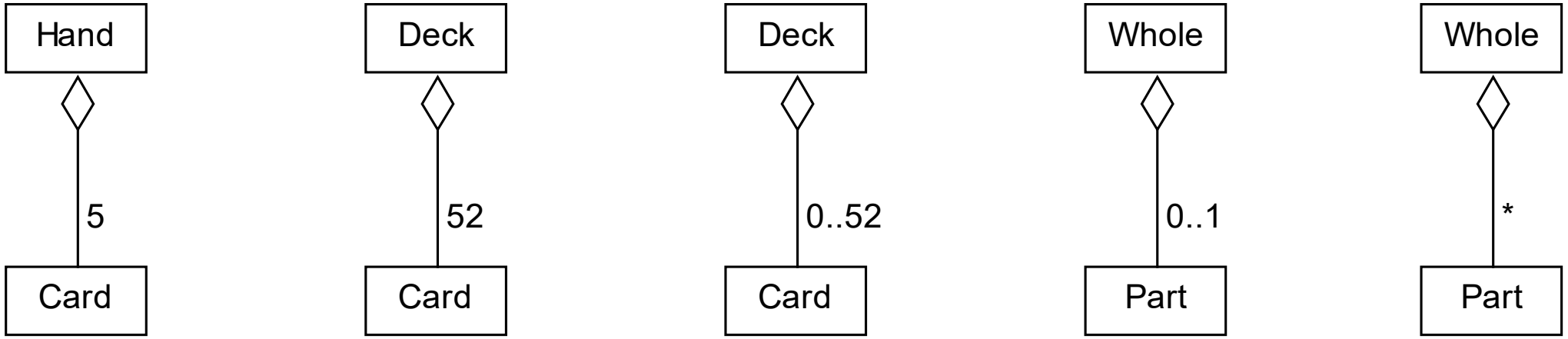

# MULTIPLE PARTS




# WHOLE WITH MANY IDENTICAL PARTS




# TOO MANY PARTS TO DIAGRAM

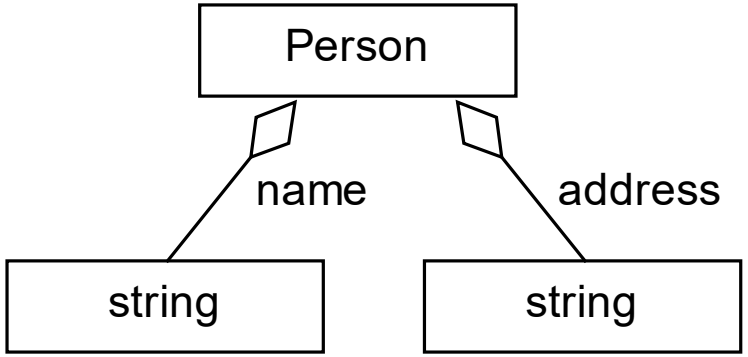


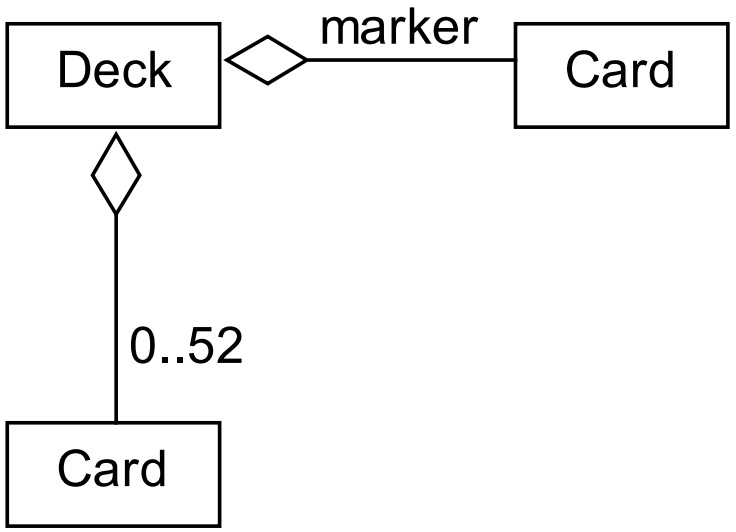

# MULTIPLICITY OPERATORS

# IMPLEMENTING MULTIPLICITY

```
class Deck
{
    private:
        int    count = 0;
        Card*  cards[52];
               . . .
};
```

```
class Deck
{
    private:
        vector<Card *> cards;
                . . .
};
```




# SAME CLASS, DIFFERENT ROLES