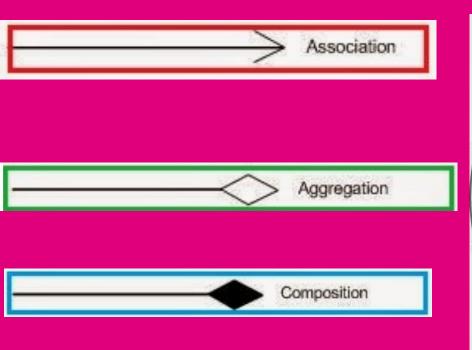
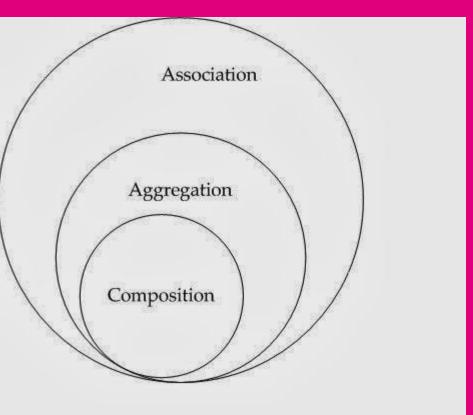
# Composition

Aggregation & Composition

#### Types of Associations between Classes





#### **Association**



The overall relation between classes (The one we have used until now)



## Aggregation - Has A relation

A Car has a Driver



A weak relation between Classes.

Could a Car exist without a driver?

If Yes, there is an Aggregation association.

You can delete either the Driver or the Car, but it would not affect the other.

#### Composition - Is Part Of - relation

A Strong Association between Classes

Engine is part of Car



Would a Car function without an Engine? If "no" then it is Composition

If you delete the car the engine also will disappear!

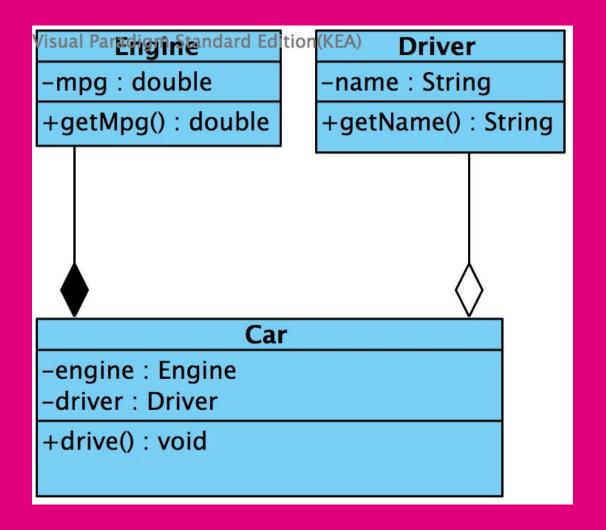
### Composition - Is Part Of - relation

Document & Pages objects



A Page is part of a Document

If you delete the Document you also delete the page.



#### **Exercise**

#### Fronter:

Materials used in Teachings ->
08 Inheritance & Composition ->
Exercise Class and Class diagram.pdf