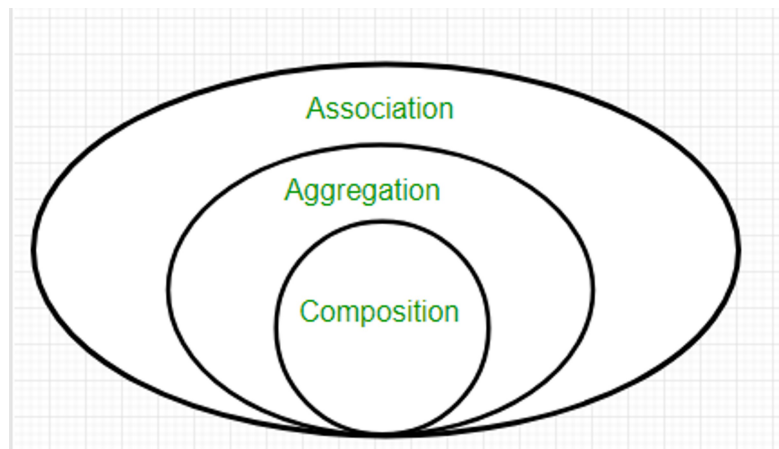
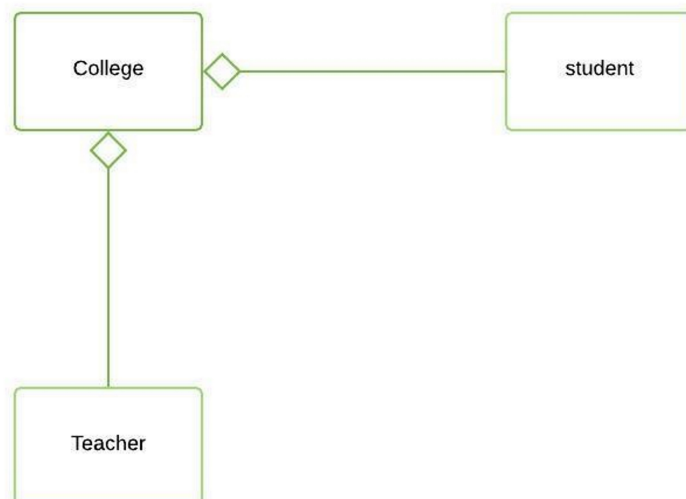


Association:



Association is a relation between two separate classes which establishes through their Objects. Association can be one-to-one, one-to-many, many-to-one, many-to-many. In Object-Oriented programming, an Object communicates to another object to use functionality and services provided by that object. **Composition** and **Aggregation** are the two forms of association.

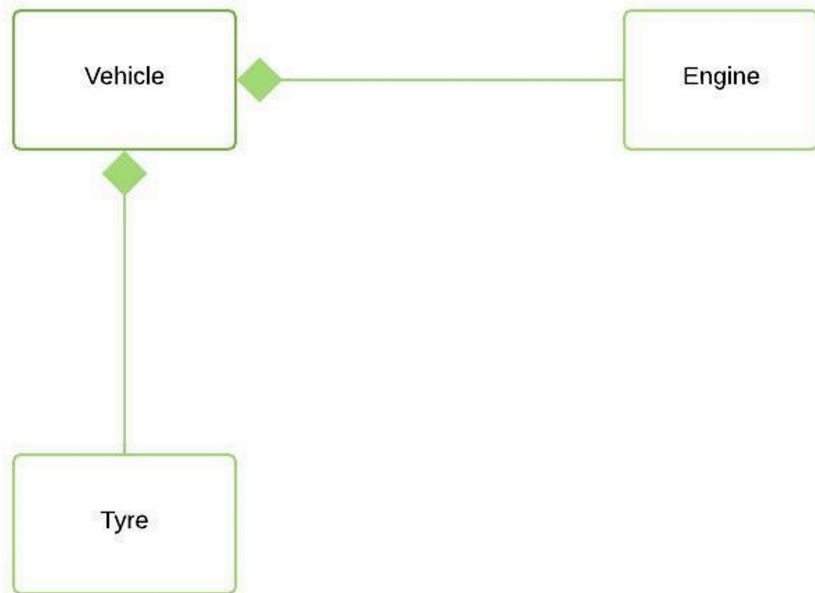
Aggregation:



It is a special form of Association where:

- It represents Has-A's relationship.
- It is a **unidirectional association** i.e. a one-way relationship. For example, a department can have students but vice versa is not possible and thus unidirectional in nature.
- In Aggregation, **both entries can survive individually** which means ending one entity will not affect the other entity.

Composition:



Composition is a restricted form of Aggregation in which two entities are highly dependent on each other.

- It represents **part-of** relationship.
- In composition, both entities are dependent on each other.
- When there is a composition between two entities, the composed object **cannot exist** without the other entity.