Composition is where we treat a class as a datatype and say that a new class has an instance variable that is of that type.

Here is a UML diagram showing composition

A slightly different form is aggregation – here the diamond is unfilled.

Composition is where the object could exist independently: a car and its engine (an engine could be fitted to a different car)

Aggregation is the same concept, but the instance variable could not exist independently of the containing class (human and their brain)

For CS2513 – we will not differentiate between composition and aggregation but you will see the difference in project management next year.