

Mini Assignment – More Relationships

The objective of the task is to familiarise yourself with relationships in general and associations, composition and aggregation in particular.

1. Below is a list of scenarios that can be modelled. Select any of the items (ideally one that is close to your subject area) and identify the main classes including their attributes and methods. Alternatively, select any other subject matter which is of interest to you.

- Engineering (Vehicle → Engine → Engine parts)
- Architecture (House → Rooms → Interior)
- Chemistry / Physics (Compound → Molecule → Atoms)
- Health / Medicine (Body → Organs)
- Information Technology (IT Infrastructure → Hardware → Components)

2. For all the classes you have identified, define relationships among them where appropriate

3. For each relationship, specify

- a meaningful name
- its multiplicity (1:1, 1:n)
- its navigability and
- its type (association, aggregation or composition)

4. Represent the entire model in UML using Poseidon