

Practical 4: Concepts of Object Orientation

Important note: Your submission for the practical should be typed. Handwritten submissions will **not** be marked by the demonstrators. Please type your name, student registration number and the practical session you attend on your submission.

1. What is an association? Explain why an association might exist between two classes. During which phase of the software development lifecycle are associations identified?
2. What is the difference between aggregation and generalisation? Give examples to illustrate your answer.
3. Identify some of the classes you would expect to find in the following systems. List sample attributes and operations for the classes you identified.
 - a) A system that manages hotel bookings
 - b) A system for a library
4. Describe what kind of relationships (e.g. associations, aggregation/composition, generalisation) exist between the following classes.
 - a) Village, street, house, shop, road, pavement
 - b) University staff, academic, administrator, technician, domestic
 - c) Zoo, animal, bird, mammal, reptile, cage, keeper