4 Object-Oriented Programming (acr31)

(a) What is an object? [2 marks]

(b) Give four examples of how object-oriented programming helps with the development of large software projects and explain why each one is helpful. [8 marks]

(c) Explain the meaning of the Open-Closed principle. [2 marks]

(d) Draw a UML diagram for a design satisfying the Open-Closed principle and explain why it satisfies it. [8 marks]