

# Information System Design (U08182)

## Tutorial Exercise 2

1. What does the term pattern mean in the context of software development?
2. How do patterns help the software developer?
3. Why is the class constructor private in a Singleton pattern?
4. What are the advantages of using the Singleton pattern?
5. What is the Façade pattern, and when should the pattern be used?
6. What implementation problems may occur when using the State pattern?
7. Explain the three types of design patterns.
8. List two general dangers and two general benefits of the use of patterns.
9. What are the main differences between the MVC architecture and the layered and partitioned architecture?
10. Explain how the update propagation mechanism works in the MVC architecture.
11. What role does each element of the MVC architecture play?
12. Explain how the Java observer and observable classes are used to implement an MVC architecture.