COSE50582: Object-Oriented Application Engineering

Scenario for examination 2018

We are to develop a computerised system to manage a restaurant in which the customers place their orders online at the tables.

A set of partial UML models has been developed and is in the accompanying Microsoft Visio file.

Your task

Your task is to consider how to use various design patterns to improve and extend the design.

In the exam, you could be asked about any of the following design patterns in the context of this scenario:

- Builder
- Command
- Composite
- Chain of Responsibility
- Decorator
- Façade
- Factory Method

- Flyweight
- Null Object
- Object Pool
- Proxy
- Singleton
- Visitor

NB: Guidance

Please find below guidance on:
- Preparing for the examination
- What you may bring to the examination
- What you can access in the examination
- Format of the examination

To prepare for the examination

You are advised to prepare for the examination by doing the following:
- Consider the initial UML models for this scenario;
- Consider how design patterns can be used in the initial UML models – you should focus on the design patterns listed above;
- Practice using Microsoft Visio.

What you may bring to the examination

You may bring the following items to the examination in paper form or electronic format:
- Any books on the topic of design patterns;
- Any notes you have made about the scenario;
- The initial UML models;
- Any UML model that you, personally, have prepared;

What you can access in the examination

During the examination, you will be allowed to access only the following resources:

- Any item that you are permitted to bring to the examination (see above);
- Any resource provided for this module on Blackboard by the lecturers;

You may not use the Internet to access resources that are not in the lists above.

Format of the examination

The examination questions will be written on paper and will be given to you at the start of the examination.

There will be three questions on the paper; you will be required to answer TWO questions.

You will prepare your answers using Microsoft Visio. You can add textual descriptions and answers to the diagrams using text boxes.

At the end of the examination, you will submit your answers via Blackboard.