

Simon Fraser University
CMPT 276
Mid-term exam

Date: 25th June, 2022
Time:
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Final page number: 4

Name: _____

Student ID: _____

1. Write your name and student ID in the space above.
2. Circle the correct answer.

Solution: THIS IS THE ANSWER KEY.

- (1) Which of the following describes the Factory Method?
 - A. The creator implements and also contains an object of the Product type.
 - B. Subclass the Creator to create different types of Products.
 - C. Concrete Creators implement Concrete Products.
 - D. Object creation code is handled by the client code that uses the Creator.
- (2) Which of the following is false about an anonymous class?
 - A. It can contain multiple methods.
 - B. It cannot reference fields of the parent class.
 - C. It has no name, so it cannot be called and reference by other code.
 - D. It is a type of inner class.
- (3) Imagine you want to create a web browser. The web browser can handle and show appropriate buttons for different types of files: web pages (HTML), PDF files, and so on. For example, with HTML, the web browser has an HTML display, HTML buttons, and HTML-relevant options. What is the most appropriate design pattern to ensure a consistent user interface?
 - A. Abstract Factory
 - B. Prototype
 - C. Decorator
 - D. Composite
- (4) Text in a box should not be in an analogous color with the fill-in color of the box. This would violate:
 - A. Triadic colors
 - B. Screen reader functionality
 - C. Customization
 - D. Contrast ratio
- (5) Which of the following is not usually a feature of Scrums?
 - A. All participants are dedicated software engineers.
 - B. Workload is divided into two-to-four-week sprints.
 - C. Every day, participants get together to briefly talk about their progress.
 - D. Each sprint ends with a session for evaluating total work done.
- (6) What is a difference between the Proxy and Decorator design patterns?
 - A. No client code changes are needed to implement Proxy, while changes are needed to implement Decorator.
 - B. Decorator changes the interface while Proxy does not change the interface.
 - C. Proxy can be subclassed while Decorator cannot be subclassed.
 - D. Decorator can authenticate the user before allowing access while Proxy cannot.
- (7) In the Decorator pattern with many Concrete Decorators, the relationship between a Concrete Decorator and its Component is...
 - A. The Concrete Decorator is an implementation of the Component.
 - B. The Concrete Decorator is a parent of a subclass of the Component.

- C. The Concrete Decorator is a subclass of an implementation of the Component.
 - D. The Concrete Decorator is a subclass of a parent of the Component.
- (8) Which of the following triggers a fast-forward merge? (Assume there are no other changes.)
- A. Pull main, make a feature branch and switch to it, make some changes, commit, push
 - B. Pull main, make some changes, then pull main
 - C. Pull main, make two feature branches, make changes to both, merge the two branches
 - D. Pull main, make some changes, commit, push
- (9) What is a difference between development testing and release testing?
- A. Development testing focuses on improving codebase; release testing focuses on removing bugs.
 - B. Development testing uses white-box testing techniques; release testing uses black-box testing techniques.
 - C. Development testing is done by developers; release testing is done by users.
 - D. Development testing includes acceptance testing; release testing includes structural testing.
- (10) Which of the following is an example of the Hawthorne effect in UX research?
- A. A user enjoyed playing your game, but during a focus group, they expressed dissatisfaction with various aspects that did not concern them during gameplay.
 - B. Users expressed that the Donation button is too big on your website. However, through A/B testing, you found out that making it smaller would decrease donations.
 - C. You cannot study password selection by asking users to create a password and give it to you.
 - D. Through card sorting, you found out that users categorize the “login” functionality with the “logging” functionality. This doesn’t make sense for your app.

Solution: B, B, A, D, A
A, C, D, B, C