Darreion Bailey

CSIS 212 – B03

Week 7

Exercise 9.5 –

Diagram

Description automatically generated

Exercise 10.6 –

Polymorphism promotes extensibility in Java in several ways. Here are a few examples:

Code reusability: Polymorphism allows for the reuse of code by creating a superclass that defines common properties and behaviors, which can be inherited by subclasses. This promotes extensibility by allowing developers to add new functionality without modifying the existing code.

Interface-based programming: Interfaces define a set of methods that a class must implement. This promotes extensibility by allowing new classes to be added that implement the same interface, without affecting existing code.

Method overriding: Polymorphism allows for method overriding, which allows a subclass to provide its own implementation of a method that is already defined in its superclass. This promotes extensibility by allowing new functionality to be added to existing classes without changing the behavior of the superclass.

Run-time binding: Polymorphism allows for run-time binding of methods, meaning that the correct method to call is determined at run-time based on the type of the object. This promotes extensibility by allowing new types of objects to be added to the system without affecting the existing code.Program:

Graphical user interface, application

Description automatically generated

. I have not shared the source code in my program with anyone other than my

instructor’s approved human sources.

b. I have not used source code obtained from another student, or any other

unauthorized source, either modified or unmodified.

c. If any source code or documentation used in my program was obtained from

another source, such as a text book or course notes, that has been clearly noted

with a proper citation in the comments of my program.

d. I have not knowingly designed this program in such a way as to defeat or interfere

with the normal operation of any machine it is graded on or to produce apparently

correct results when in fact it does not.