Java Basics

Training Assignment

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RECORD OF CHANGES

No	Effective Date	Change Description	Reason	Reviewer	Approver
1	20/May/2020	Createw a new assignment	Create new	DieuNT1	VinhNV

Contents

CODE:	Assignment07_Opt1
TYPE:	Long
LOC:	N/A
DURATION:	90 MINUTES

Java I/O Streams

Objective

- Java InputStream, Java OutputStream, Java FileInputStream, Java FileOutputStream, Java ObjectInputStream, Java ObjectOutputStream, Java BufferedInputStream, Java BufferedOutputStream, Java PrintStream

Business needs

- TBD

Working requirements

- Working environment: Eclipse IDE.
- Delivery: Source code, deployment and testing, reviewing evident packaged in a compress archive.

Product architecture

- N/A

Technologies

The product implements one or more technology:

- Java basics
- Java I/O Stream

Stored Data

- N/A

Exercise 1:

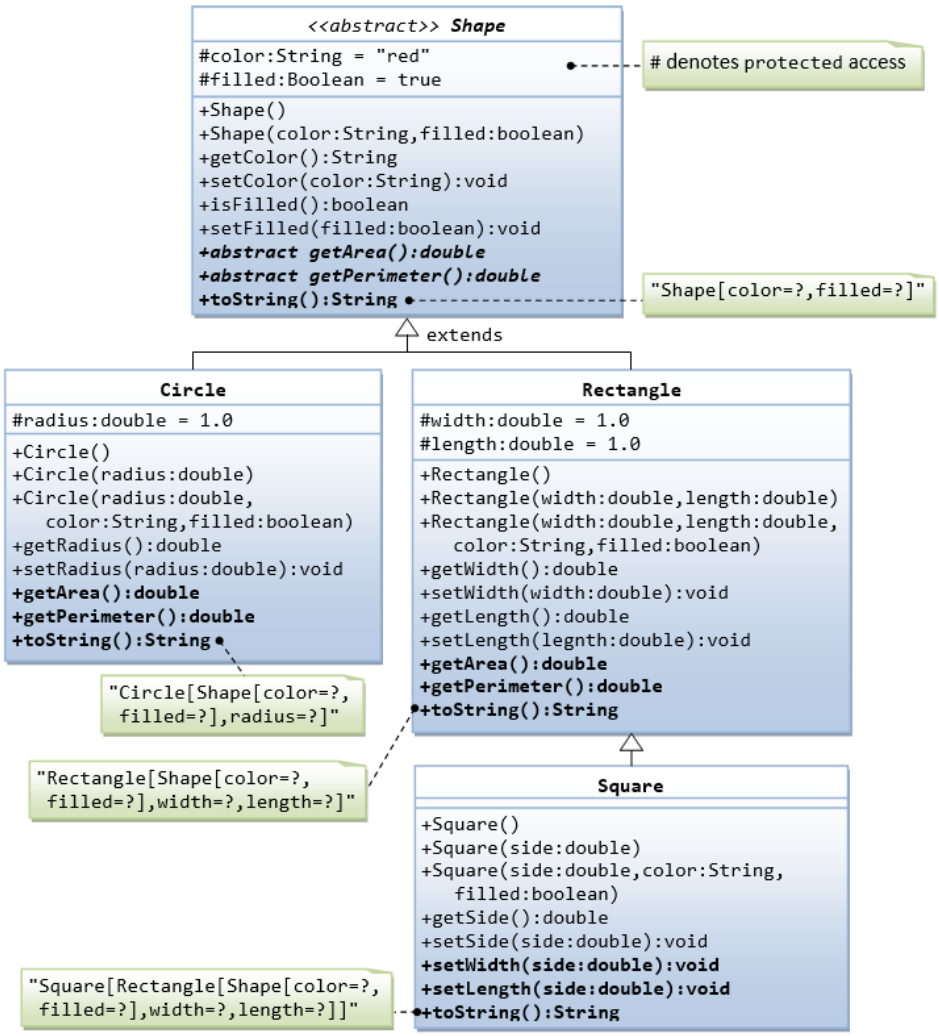
Write a Java program to read and write a plain text file using InputStream, OutputStream, FileInputStream, FileOutputStream.

Exercise 2:

Create A class called Student with 3 properties “First, Last, Email”. Write a Java program to read and write a object Student to file.

Exercise 3:

Rewrite the superclass Shape and its subclasses Circle, Rectangle and Square, as shown in the class diagram.



In this exercise, Shape shall be defined as an abstract class, which contains:

Two protected instance variables color(String) and filled(boolean). The protected variables can be accessed by its subclasses and classes in the same package. They are denoted with a '#' sign in the class diagram.

Getter and setter for all the instance variables, and toString().

Two abstract methods getArea() and getPerimeter() (shown in italics in the class diagram).

The subclasses Circle and Rectangle shall override the abstract methods getArea() and getPerimeter() and provide the proper implementation. They also override the toString().

Write a test class to test these statements involving polymorphism and explain the outputs. Some statements may trigger compilation errors. Explain the errors, if any.

-- THE END --