OOP Workshop

Task 1:

Create the following classes:

a. Class person contains:

i. Data members (string name, and int age)

ii. Setter methods

iii. Getter methods

iv. Constructors

v. Print method to display person info

b. Class Fixed employee inherits from person and contains the following data:

i. Float salary

ii. Setter and getter for salary

iii. Constructors

iv. Override print method

c. Class Hourly Employee inherits from Fixed Employee and contains the following:

i. Int number of hours, float hour rate

ii. Setter methods

iii. Getter methods

iv. Override getSalary method and make salary = hours* hour_rate
then return the salary

v. Override print method to display name, age, salary,

hours and hour rate

d. Create object from hourly employee the print his info.

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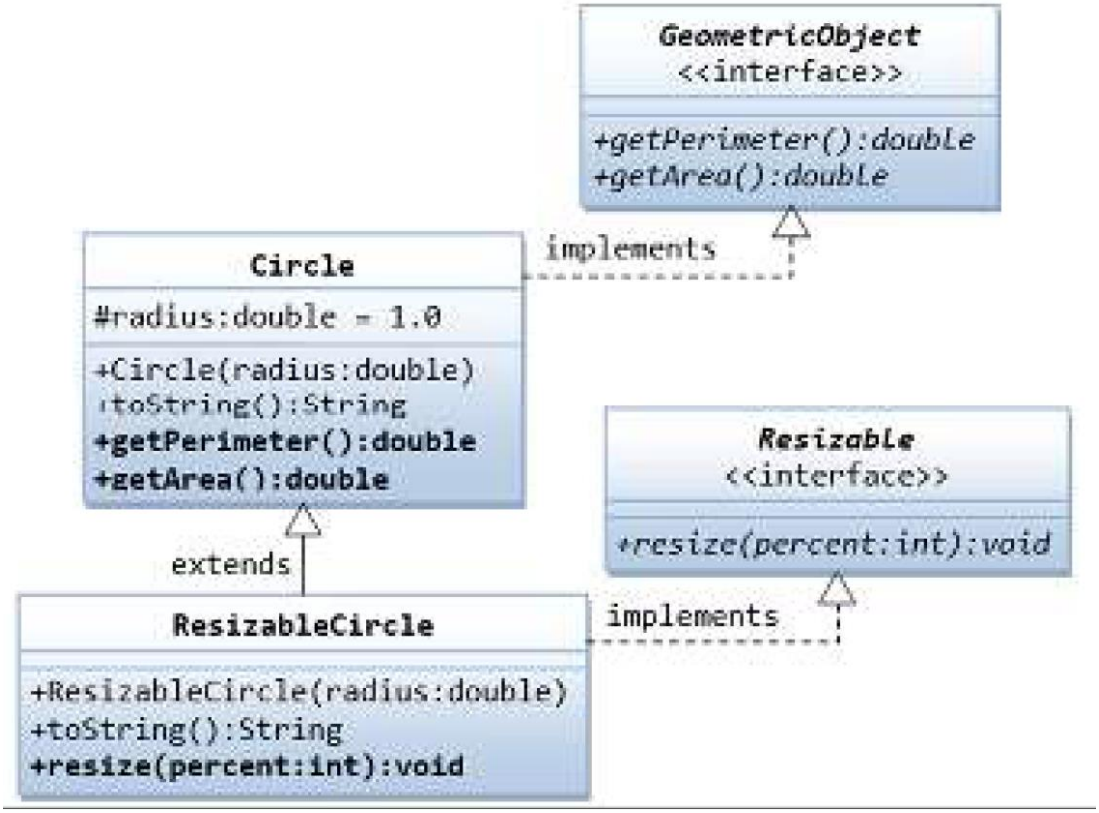
Task 2:

What is Difference between composition vs inheritance with example by Code.

Task 3:



1. Write the abstracted class called GeometricObject, which declares two abstracted methods:
    a. getParameter().
    b. getArea(), as specified in the class diagram

2. Write the implementation class Circle, with a protected variable radius, which implements GeometricObject.

3. The class ResizableCircle is defined as a subclass of the class Circle, which also implements an abstract called Resizable, as shown in class diagram. Resizable declares an abstracted method resize(), which modifies the dimension (such as radius) by the given percentage.

4. Write Resizable and the class ResizableCircle.

Task 4:

Create Calculator class contains 2 data members with the same template data type and contains 4 method add(), subtract(), multiply() and divide().