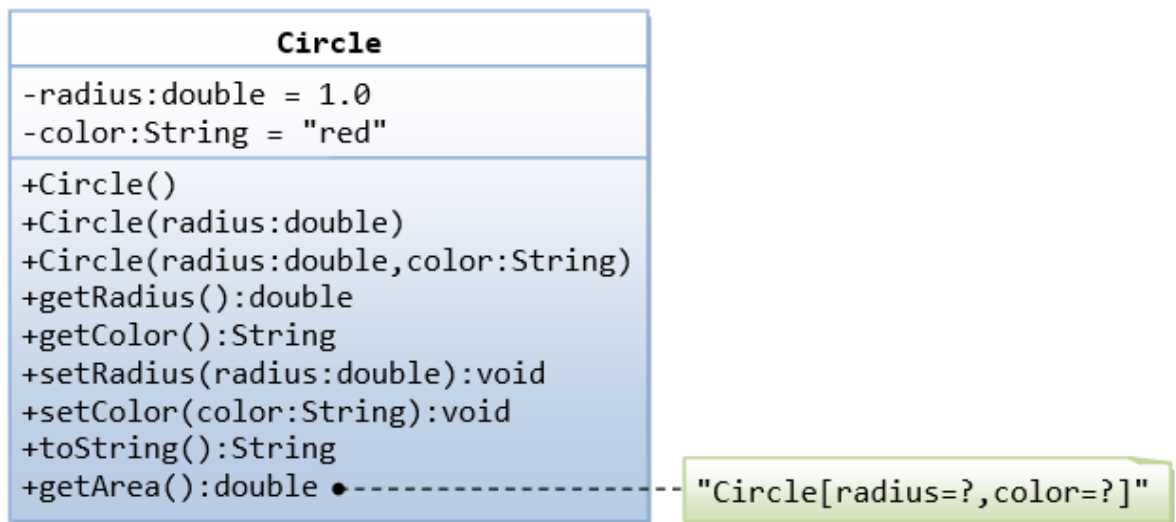


Task 2

1- Write a program to create interface A in this interface we have two method meth1 and meth2. Implements this interface in another class named MyClass.

2- Write this program in java

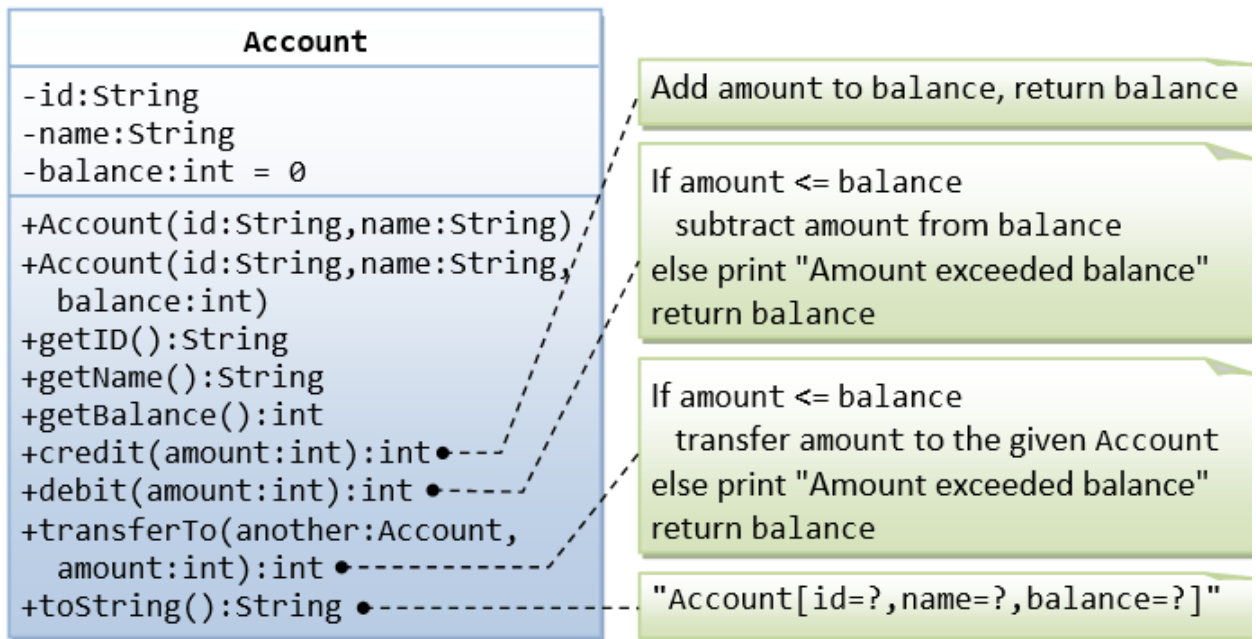


A class called **circle** is designed as shown in the following class diagram. It contains:

- Two private instance variables: radius (of the type double) and color (of the type String), with default value of 1.0 and "red", respectively.
- Two *overloaded* constructors - a *default* constructor with no argument, and a constructor which takes a double argument for radius.
- Two public methods: `getRadius()` and `getArea()`, which return the radius and area of this instance, respectively.

3- A class called Account, which models a bank account of a customer, is designed as shown in the following class diagram. The

methods `credit(amount)` and `debit(amount)` add or subtract the given amount to the balance. The method `transferTo(anotherAccount, amount)` transfers the given amount from this Account to the given anotherAccount. Write the Account class.



- 4- Suppose that we are required to model **students** and **teachers** in our application. We can define a **superclass** called **Person** to store common properties such as **name** and **address**, and subclasses **Student** and **Teacher** for their specific properties. For students, we need to maintain the **courses** taken and their respective **grades**; add a **course with grade**, print all **courses taken** and the **average grade**. Assume that a student takes no more than **30** courses for the entire program. For teachers, we need to maintain the **courses** taught currently, and able to **add or remove a course** taught. Assume that a teacher teaches not more than **5** courses concurrently.

