



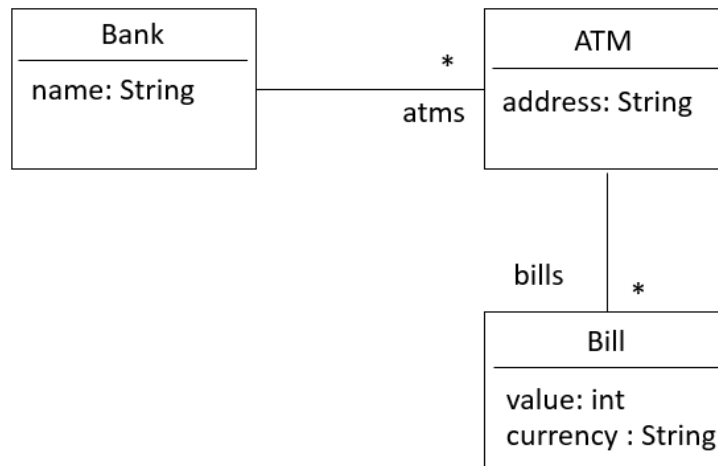
## EXERCICE 1 (25 pts)

1. **super** keyword is used to refer immediate parent class object. (3pts)  
A. True                      B. False
2. To **extend** Animal to Tiger class we write: (3pts)
  - a. class Tiger implements Animal
  - b. class Tiger extends Animal
  - c. class Animal extended Tiger
  - d. interface Tiger implements Animal
3. What is the role of the **constructor**? (3pts)
  - a. creates an instance of a class (an object)
  - b. creates names for methods
  - c. to create some type of change in the state of an object
4. A **class** is: (3pts)
  - a. an object
  - b. an executable piece of code
  - c. an abstract definition of an object
  - d. a variable
5. An **object** is: (3pts)
  - a. an instance of a class
  - b. a data structure
  - c. a variable
  - d. an executable piece of code



## EXERCICE 2 (25 pts)

Convert the bellow diagram below to **Dart** code.



## EXERCICE 3 (25 pts)

**Understand the given problem and answer the questions**

- A school has many teachers and many classes
- Each class has one teacher which is the coordinator of the class
- Teachers and classes and schools have a name
- Teachers have many skills (example: Java, PHP, English)

**Q1** – Write the Dart code related to the problem.

## EXERCICE 4 (25 pts)

**Understand the given problem and answer the questions**

- All drinks have a name and a price
- Coffee is a drink, but has additionally a quantity of sugar
- Orange juice is a drink, but has additionally has a number of oranges

**Q1** – Write the Dart code related to the problem.