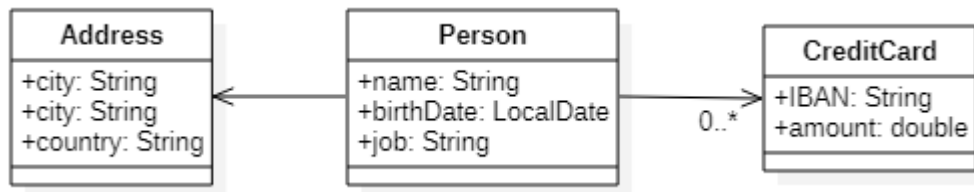


**Homework #1**

1. Implement the following class diagram:



Note that a Person can own more than one credit card.

**Requirements:**

- Following this diagram create a database and insert 5 Persons, 3 Addresses and 7 Credit Cards with the appropriate connections
  - In your Java application connect to the database, create an ArrayList of Person objects that are initialized with data from the database.
  - Allow the user to insert another Person object with a new Address and a new CreditCard in the database from your Java application.
  - Use DAOs for Address, Person and CreditCard
2. Read how to program concurrently in Java:  
<http://java.sun.com/docs/books/tutorial/essential/concurrency/index.html>

Implement a class extending Thread that has a unique Id and a number of steps. In its execution it should go over all the steps and at every step print its state then sleep for a duration between 10 and 1000 milliseconds. Initialize and start 5 instances of this class.

Hint: the output should look like:

```
Thread with ID 544 is at step 5 out of 40.
Thread with ID 21 is at step 9 out of 23.
Thread with ID 123 is at step 54 out of 55.
...
Thread with ID 544 is at step 6 out of 40.
...
Thread with ID 123 has stopped executing.
```