**Lab – Files**



***Donation class:***

* + ATTRIBUTES:
  + ***amount***: the amount of the donation.
  + ***location***: the location where the donation was received.
  + ***donorName***:name of the donor.
  + METHODS:
  + ***Donation(amount :double, location : string, donorName: string):*** constructor**.**
  + ***getDonorName(): string:*** returns the donor name*.*
  + ***getAmount: double:*** returns the amount of the donation. This method throws an exception if the amount is negative.
  + ***display():*** displays the values of the attributes of the donation.

***Cash class:***

* + ATTRIBUTES:
  + ***currency***: the currency of the cash donation.
  + METHODS:
  + ***Cash(amount: double, location: string, donorName: string, currency:string):***constructor.
  + ***getCurrency():string:*** returns the currency.
  + ***display()***: displays all the attributes of the **Cash** object.

***Check class:***

* + ATTRIBUTES:
  + ***bankName***: the name of the bank of the check.
  + METHODS:
  + ***Check(amount: double, location: string, donorName: string, bankName:string):***constructor.
  + ***getBankName():string:*** returns the name of the bank of the check.

***IOInterfaceinterface:***

* + METHODS:
  + ***saveToFile(fileName:string, donor:string):***This method saves all the **Cash** donations received from the donor **donor** into the object file **fileName**.
  + ***loadFromFile(fileName:string, arrCheck: Check[]):*** This method reads the **Donation** objects from the file **fileName** and stores the **Check** donations **only** in the array **arrCheck**.

***CharityAssociation class:***

* + ATTRIBUTES:
  + ***name***: the name of the association.
  + METHODS:
  + ***CharityAssociation (name:string, size: int):*** constructor***.***
  + ***addDonation(d: Donation):boolean:*** adds a donation **d** to the charity association. It returns true if done. False otherwise.
  + ***avgCashDonation(cur:string):double:*** calculates the average amount of the cash donations which currency is **cur**. The donations with negative amount should not be considered.
  + ***getCheck (bName:string): Donation:*** returns a **Check** donation which bank name is **bName**.

Translate into Java code the interface ***IOInterface, class*** ***Donation***, ***CharityAssociation, Cash and Check*.**