

CS393 Homework Assessment (1)

Assignment Date : 08.11.2021

Deadline : 15.11.2021 11.00 PM

- This assessment must be done individually
- You can send your project via email (zip file) or send project's link (Google Drive or GitHub)

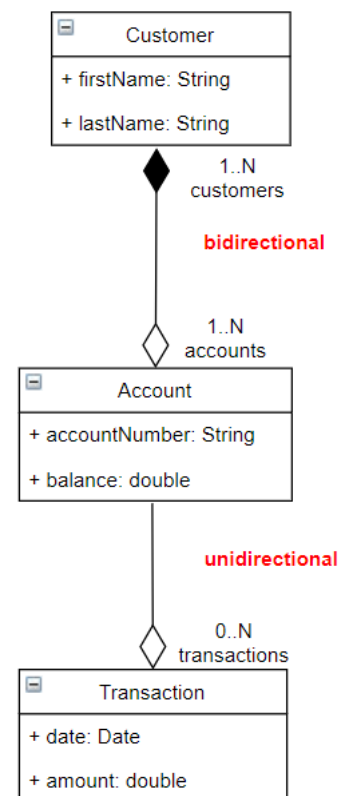
Homework Details:

- Create a SpringBoot project with Spring Data JPA and Spring Web dependencies
- Add other required dependencies (database, Spring Dev Tools etc). Please use a simple database (Derby, HSQLDB, H2DB, etc)
- Add model classes you see in the diagram. Be careful about relationship types (bidirectional/unidirectional)
 - Add ID attribute to all your classes. The value of your ID should be generated automatically.
 - The minimum number of attributes were added to the classes. You can also add other necessary attributes.
- Define all your classes as Entity. Add the required database mapping rules. Define table names, Column names and other attributes. Your table design should look like the design you will see on the next page. Do not create any relationship table between Account and Transaction
- Create Spring Data JPA repositories for all model classes
- Create a test class and test your configuration. Your code should insert records into database. Pay attention to entity relationships. For example, don't forget to add accounts to a customer, add customers to an account, or add transactions to an account. These are some example commands:

```
acc1.getCustomers().add(cust1);
```

```
cust1.getAccounts().add(acc1);  
cust1.getAccounts().add(acc2);
```

```
cust2.getAccounts().add(acc1);  
acc1.getTransactions().add(trx1);  
acc2.getTransactions().add(trx2);  
acc2.getTransactions().add(trx3);
```



Sample Database Structure

T_ACCOUNT ×		
ID [INTEGER]	ACCOUNT_NUMBER [VARCHAR(10)]	BALANCE [DOUBLE]
1	A123	200.0
3	B345	3000.0

T_CUSTOMER ×		
ID [INTEGER]	FIRST_NAME [VARCHAR(20)]	LAST_NAME [VARCHAR(30)]
2	Esma	Meral
4	Ahmet	Kaya
7	Ece	Demir

T_TRANSACTION ×			
ID [INTEGER]	AMOUNT [DOUBLE]	DATE [DATE]	ACC_ID [INTEGER]
5	500.0	2021-11-06	3
6	50.0	2021-11-06	3
8	200.0	2021-11-06	1

REL_ACCOUNT_CUSTOMER ×	
CUST_ID [INTEGER]	ACC_ID [INTEGER]
1	2
1	7
3	2
3	4