

Write caching layer along with Junit test cases for standalone java application with following assumptions:

- Cache should be globally accessible throughout the JVM
- Cache client will access cached objects by providing table name & primary key value
- All tables have integer primary key
- Initially three tables are required to be cached, REF_COUNTRY, REF_CURRENCY & REF_HOLIDAY
- Cache should have provision to support more tables if required
- Cache should have provision to manual and auto removal of cache
- Code should be adhered to java development standards
- Concurrent access should be enabled using Read/Write Locks

Note:

1. Code should be written using JDK only (don't use any readymade APIs or Framework)
2. You are not required to write complete DAO layer for the tables (instead you can return dummy data from DAO methods to pass the JUnit test cases)
3. Provided solution should not have any specific dependencies and should be runnable on any Java enabled machine.
4. Test Cases and Client code is expected to test the cache implementation.

REF_COUNTRY		
Column Name	Pk	Data Type
COUNTRY_ID	1	NUMBER (9)
COUNTRY_CD		VARCHAR2 (20 Byte)
COUNTRY_NAME		VARCHAR2 (50 Byte)
STATUS_IND		NUMBER (3)
LAST_MODIFY_DT		DATE
MODIFY_PERSON_NUM		NUMBER (9)

REF_CURRENCY		
Column Name	Pk	Data Type
CURR_ID	1	NUMBER (9)
CURR_CD		VARCHAR2 (3 Byte)
CURR_NAME		VARCHAR2 (50 Byte)
CURRENCY_SYMBOL		VARCHAR2 (5 Byte)
STATUS_IND		NUMBER (3)
LAST_MODIFY_DT		DATE
MODIFY_PERSON_NUM		NUMBER (9)

REF_HOLIDAY		
Column Name	Pk	Data Type
HOLIDAY_ID	1	NUMBER (9)
HOLIDAY_CD		VARCHAR2 (30 Byte)
HOLIDAY_NAME		VARCHAR2 (50 Byte)
HOLIDAY_DT		DATE
STATUS_IND		NUMBER (3)
LAST_MODIFY_DT		DATE
MODIFY_PERSON_NUM		NUMBER (9)