

Lab Assignment #3

➤ Assignment Overview

- **Released date:** 5/17
- **Due date:** 5/30 23:59 PM
- **Assigned points:** 2
- **Submission:** a word file consisting of 1) the captured screen shots and 2) the explanation of each step
- **Where to submit:** to e-class (<http://eclass.seoultech.ac.kr>)
- Late submission is not allowed

HW Assignment #1

■ Directions

1. We will now create a new table named "T", having three columns: id (of type integer, the primary key), s (of type character string with a length varying from 1 to 40 characters), and si (of type small integer)
2. Then, insert some rows to the newly created table:
 - INSERT INTO T (id, s) VALUES (1, 'first');
 - INSERT INTO T (id, s) VALUES (2, 'second');
 - INSERT INTO T (id, s) VALUES (3, 'third');
3. Check the data stored in T
4. Try to cancel or rollback the current transaction and check the data in table T
 - **Capture the screen showing the results**
5. Try to execute "commit;" command before rollback the transaction in 4 and compare the result with it in 4
 - **Capture the screen showing the results**

■ Submit two screen shots above

HW Assignment #2

■ Create a simple table

```
1 create table Worker(  
2   WorkerID varchar(20),  
3   WorkerName varchar(255),  
4   WorkerJob varchar(255),  
5   CONSTRAINT PK_Worker PRIMARY KEY (WorkerID)  
6 );
```

```
1 insert into worker values ('1','John', 'nurse');  
2 insert into worker values ('2','Grace', 'farmer');  
3 insert into worker values ('3','Smith', 'doctor');
```

■ Do locking test for a specific record (i.e., one tuple) using two different transactions

- To obtain a lock for a specific record, you can use a command “select .. from ... where.... for update”. Then, the tuples satisfying the conditions will be locked. To use two different transactions and check their results, open two SQL Plus windows.

■ Test the following cases

- [Case1] In the first transaction, lock a record; In the second transaction, try to access the same record
 - **Capture the screen where the second transaction is blocked while presenting the used queries**
- [Case2] To release the lock in the first transaction, execute “commit” where the previous lock has been obtained
 - **Capture the screen where the second transaction is unblocked**
- [Case3] Try to test obtaining the lock for a different record from the second transaction while the first transaction has a lock for a specific record as in Case1
 - **Capture the screen where the second transaction can access the data**

■ Submit three screen shots above