CS1555 Recitation 3

Objective: To practice SQL DDL (schema evolution)

Notes:

1. You can use `describe <table_name>;` to validate attribute type changes.
2. You can use insert statements to validate attribute constraint changes.

Questions:

1. Create a table "t1" with a primary key attribute "a1" of type varchar2(10).
   (Before creating the table, please use drop table statement to avoid pre-existing tables with the same name)

2. Add a new column called "a2" of type varchar2(5) to "t1".

3. Modify the length of "a2" to be 10.

4. Modify "a2" to be of type number(5);

5. Modify "a2" to be of type number(10, 5);

6. Change the schema so that "a2" cannot be null.

7. Change the schema so that "a2" can be null again.

8. Change the default value of "a2" to be 1.

9. Remove the default value of "a2".

10. Change the schema so that "a2" must be unique.

11. Change the schema so that "a2" doesn't need to be unique.

12. Add a range check to “t1” so that the value of “a2” must be greater or equal to 1 and less or equal to 10.

13. Modify the range check so that the value of “a2” must be greater or equal to 1 and less or equal to 5.

14. Add a check so that the value of “a2” must be in the set of {1,2,3,4,5}.

15. Create a table “t2” with a primary key attribute “b1” of type number(10,5).
(Before creating the table, please use drop table statement to avoid pre-existing tables with the same name)

16. Add a foreign key constraint to “a2” so that “a2” refers to “b1” in table “t2”.

17. Try to insert a tuple into “t1” with values (“pitt01”, 5).

18. Try to drop table “t2”.

19. Drop table “t2” with “cascade constraints” option.

20. Add a unique constraint on (a1, a2) and try to drop column “a2”.

21. Drop column “a2” with “cascade constraints” option.