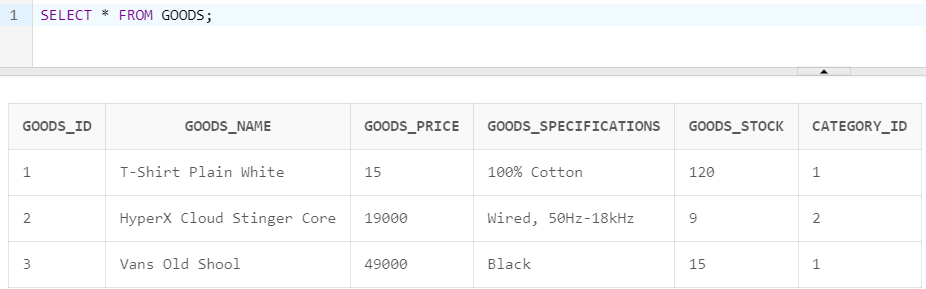
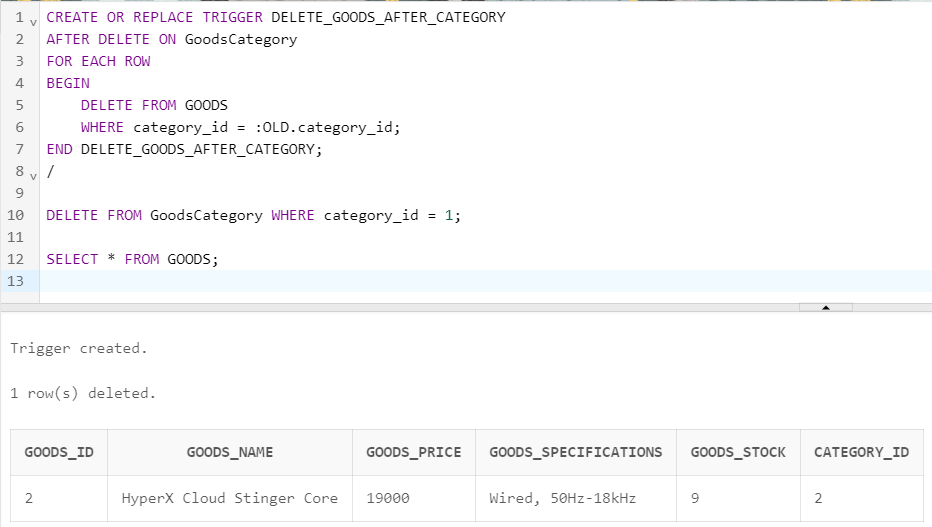
**Lab6. Creating Triggers**

1. Create at least three triggers with the functionality according to the database subject area.
2. Demonstrate the results of triggers functioning.





CREATE OR REPLACE TRIGGER DELETE\_GOODS\_AFTER\_CATEGORY

AFTER DELETE ON GoodsCategory

FOR EACH ROW

BEGIN

DELETE FROM GOODS

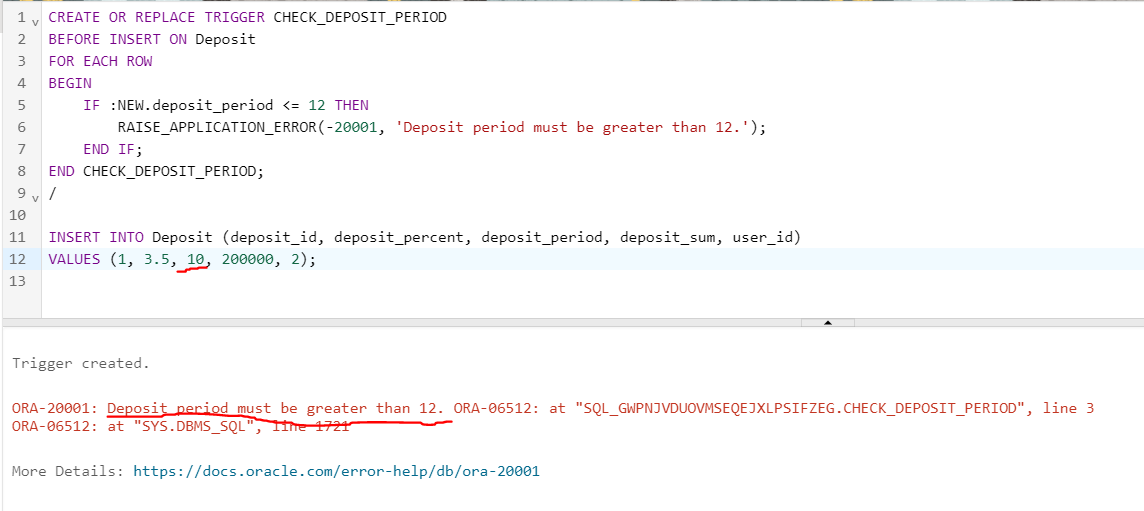
WHERE category\_id = :OLD.category\_id;

END DELETE\_GOODS\_AFTER\_CATEGORY;

/

DELETE FROM GoodsCategory WHERE category\_id = 1;

SELECT \* FROM GOODS;



CREATE OR REPLACE TRIGGER CHECK\_DEPOSIT\_PERIOD

BEFORE INSERT ON Deposit

FOR EACH ROW

BEGIN

IF :NEW.deposit\_period <= 12 THEN

RAISE\_APPLICATION\_ERROR(-20001, 'Deposit period must be greater than 12.');

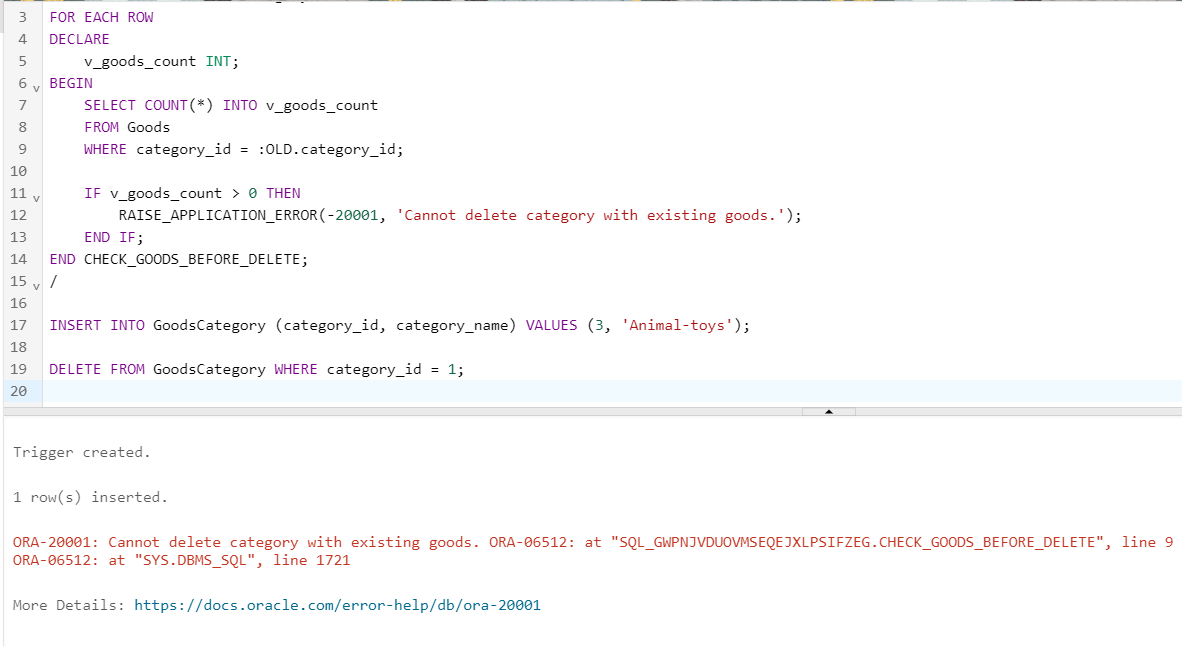
END IF;

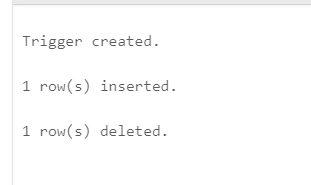
END CHECK\_DEPOSIT\_PERIOD;

/

INSERT INTO Deposit (deposit\_id, deposit\_percent, deposit\_period, deposit\_sum, user\_id)

VALUES (1, 3.5, 10, 200000, 2);





CREATE OR REPLACE TRIGGER CHECK\_GOODS\_BEFORE\_DELETE

BEFORE DELETE ON GoodsCategory

FOR EACH ROW

DECLARE

v\_goods\_count INT;

BEGIN

SELECT COUNT(\*) INTO v\_goods\_count

FROM Goods

WHERE category\_id = :OLD.category\_id;

IF v\_goods\_count > 0 THEN

RAISE\_APPLICATION\_ERROR(-20001, 'Cannot delete category with existing goods.');

END IF;

END CHECK\_GOODS\_BEFORE\_DELETE;

/

INSERT INTO GoodsCategory (category\_id, category\_name) VALUES (3, 'Animal-toys');

DELETE FROM GoodsCategory WHERE category\_id = 3;

Questions:

1. What are triggers for?
2. What are the types of triggers depending on the execution time?
3. What are the types of triggers depending on triggering events?
4. Describe statement level triggers with examples.
5. Describe row level triggers with examples.
6. What is the sequence of execution of statement and row triggers?
7. Describe **new** and **old** qualifiers, and their structure.
8. What is the section WHEN for?
9. How a trigger is created.
10. How the triggering events can be grouped?
11. When INSTEAD OF triggers are used?
12. How to create a disabled trigger?
13. How to enable or disable a trigger?
14. What is a mutating table?
15. What is a compound trigger?
16. In which sequence the sections in a compound trigger must be defined?
17. How to create a compound trigger?
18. For which database objects can a compound trigger be created?