

Drop tables / Create tables

```
drop table student cascade constraints;
drop table address_history cascade constraints;
drop table student_history cascade constraints;

-- Create student table
create table student (
    student_id number not null primary key,
    student_name varchar2(70) not null,
    dob date not null
);

-- Create tables for address history and student history
create table address_history (
    history_id number primary key,
    student_id number,
    old_address varchar2(250),
    DateOfChange date default sysdate,
foreign key (student_id) references student(student_id) on delete cascade
);

-- Create history of student log
create table student_history (
    record_id_history number primary key,
    student_id number,
    student_name varchar2(70),
    dob date,
foreign key (student_id) references student(student_id) on delete cascade
);
```

Output of create table

TABLE_NAME
ADDRESS_HISTORY
STUDENT
STUDENT_HISTORY

describe student

Name	Null	Type
STUDENT_ID	NOT NULL	NUMBER
STUDENT_NAME	NOT NULL	VARCHAR2(70)
DOB	NOT NULL	DATE

describe student_history

Name	Null	Type
RECORD_ID_HISTORY	NOT NULL	NUMBER
STUDENT_ID		NUMBER
STUDENT_NAME		VARCHAR2(70)
DOB		DATE

describe ADDRESS_HISTORY

Name	Null	Type
HISTORY_ID	NOT NULL	NUMBER
STUDENT_ID		NUMBER
OLD_ADDRESS		VARCHAR2(250)
DATEOFCHANGE		DATE

no rows selected

no rows selected

no rows selected

alter scripts

```
-- Alter table add nickname and address columns
alter table student add (
    nickname varchar2(70),
    address varchar2(250)
);
```

Alter table output

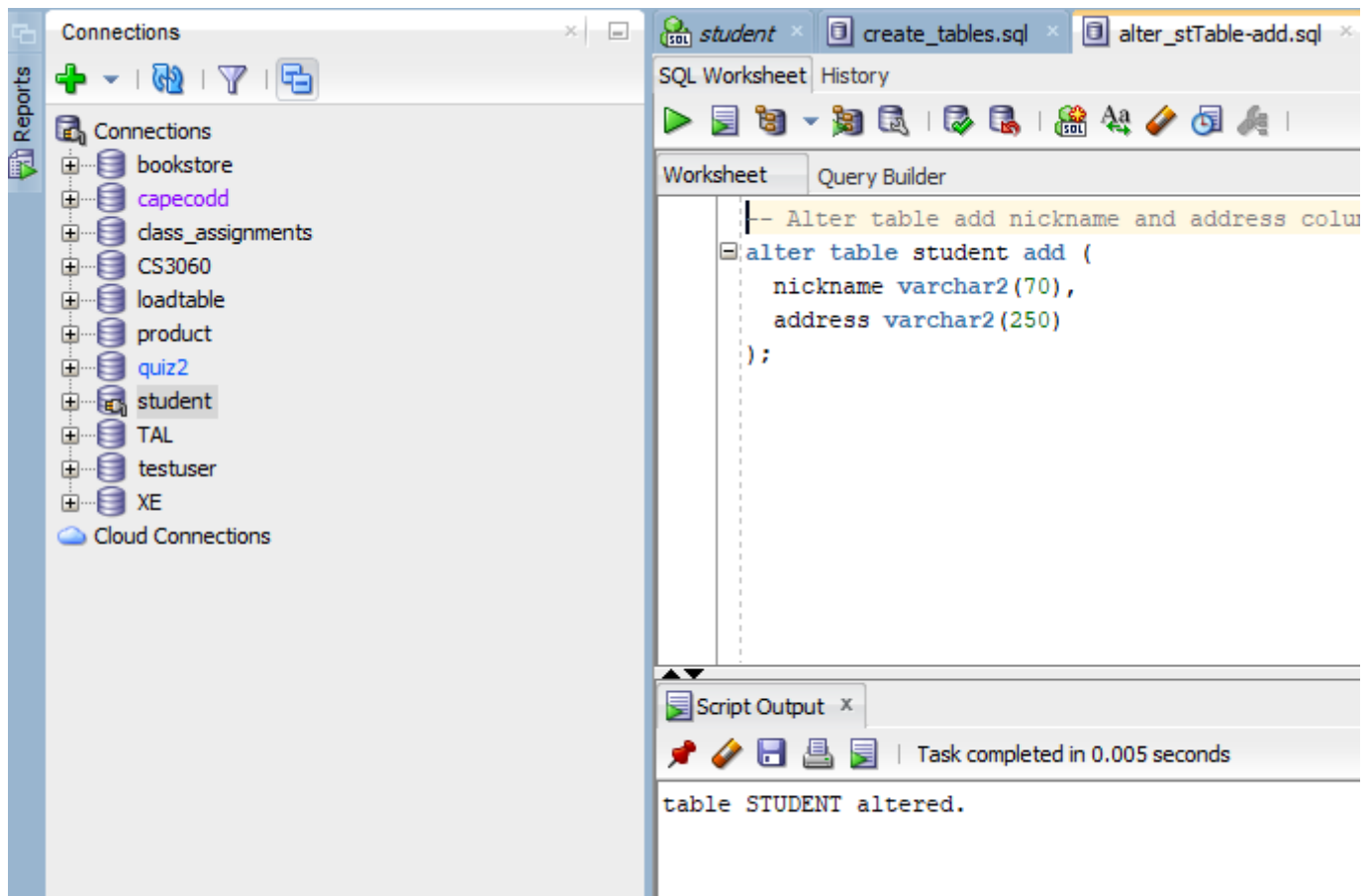


Figure 1: Running Alter Script

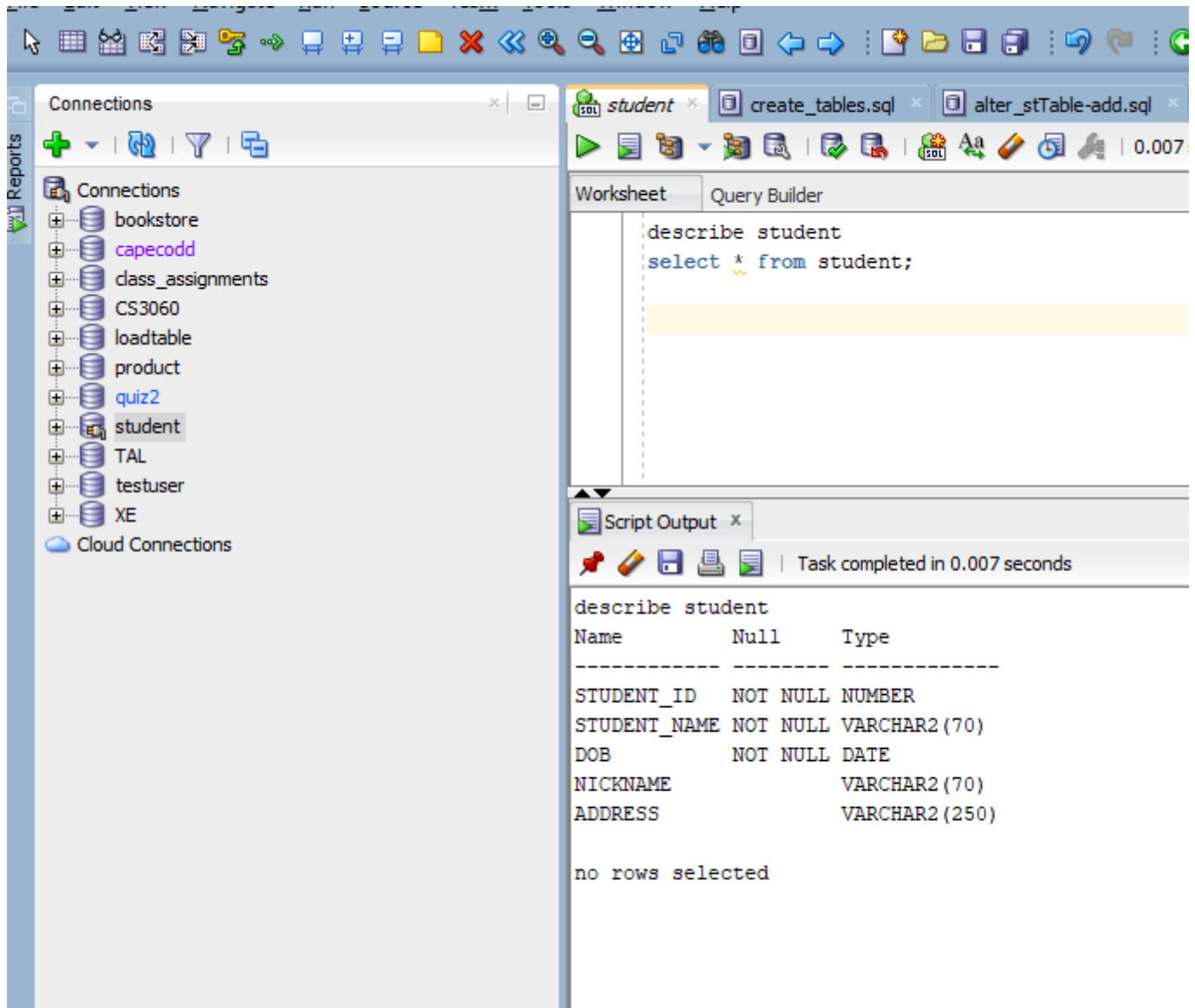


Figure 2: Student Table NEW

Triggers scripts

```
-- TRIGGER for change of address
create or replace trigger address_update
before update of address on student
for each row
begin
    insert into address_history (student_id, old_address, DateOfChange)
    values (:old.student_id, :old.address, sysdate);
end;
/

-- deletion of student record
create or replace trigger student_history
before delete on student for each row
begin
    insert into student_history (student_id, student_name, dob)
    values (:old.student_id, :old.student_name, :old.dob);
end;
/
```

Output

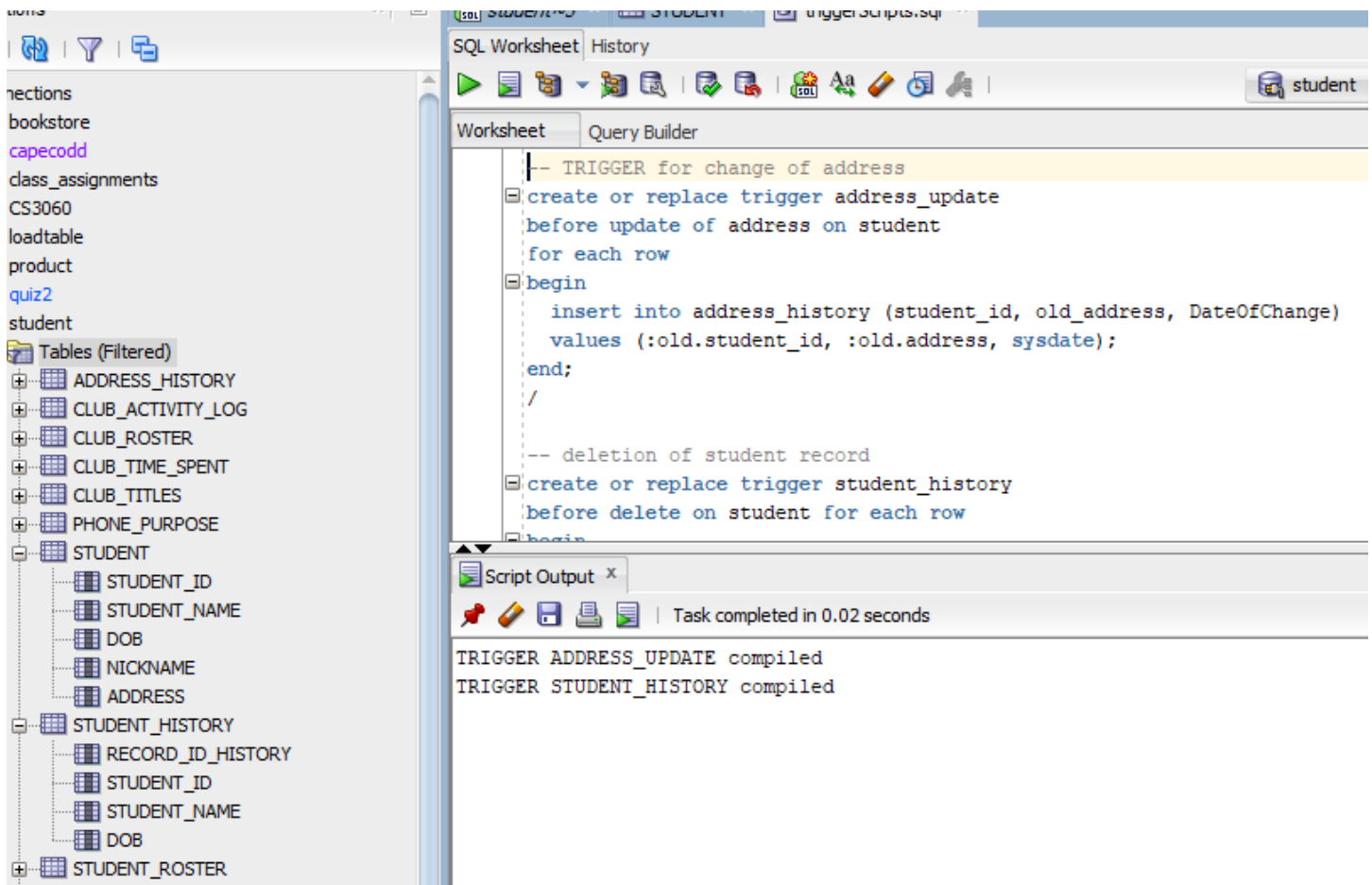


Figure 3: Compiler Output