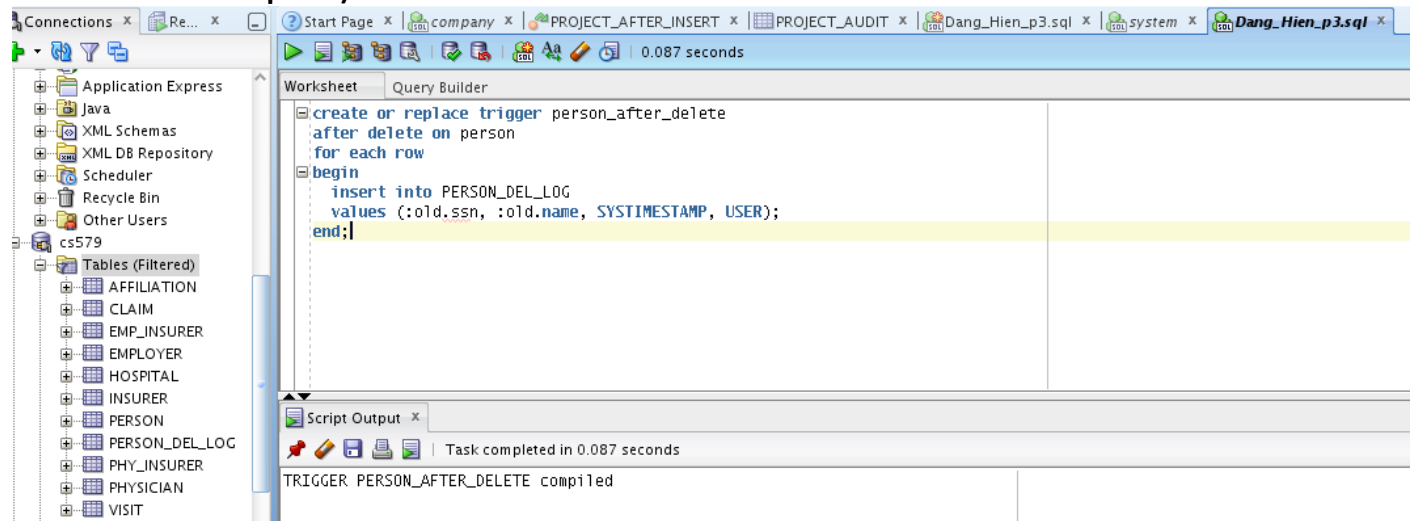
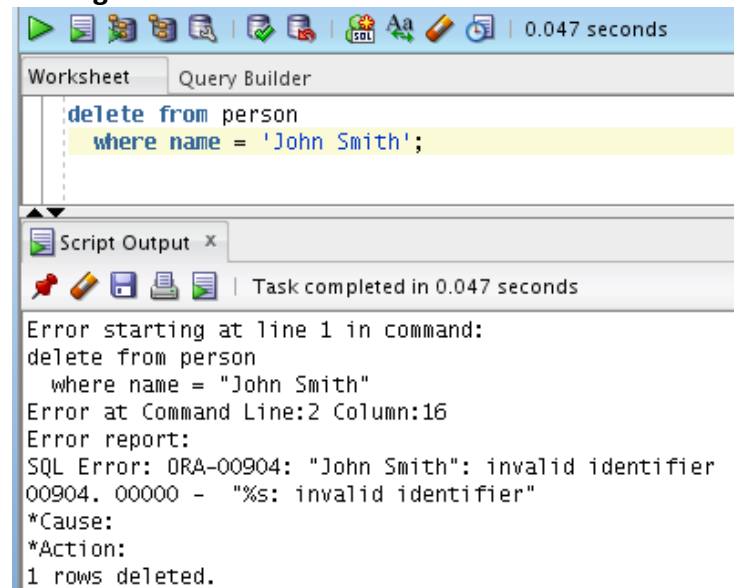


First Trigger:

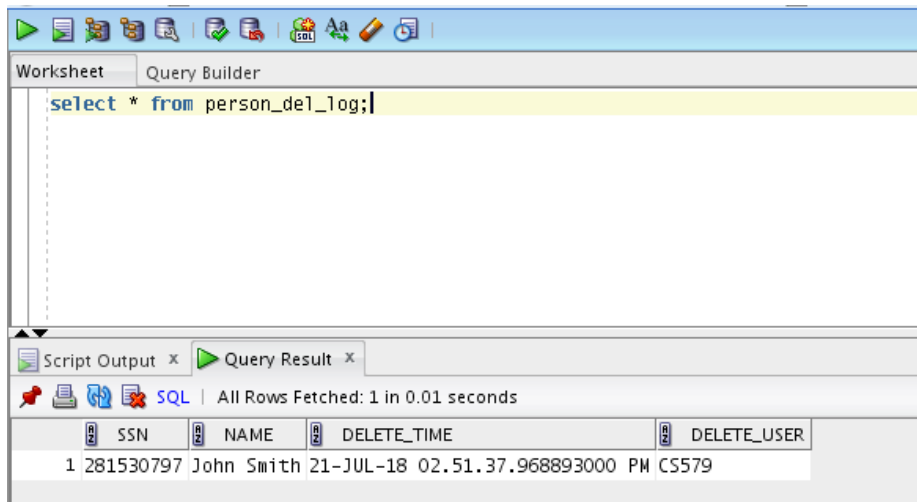
Trigger is compiled: (Note: PERSON_DEL_LOG table was created and can be seen on the schema on the left panel)



Testing:



Result:

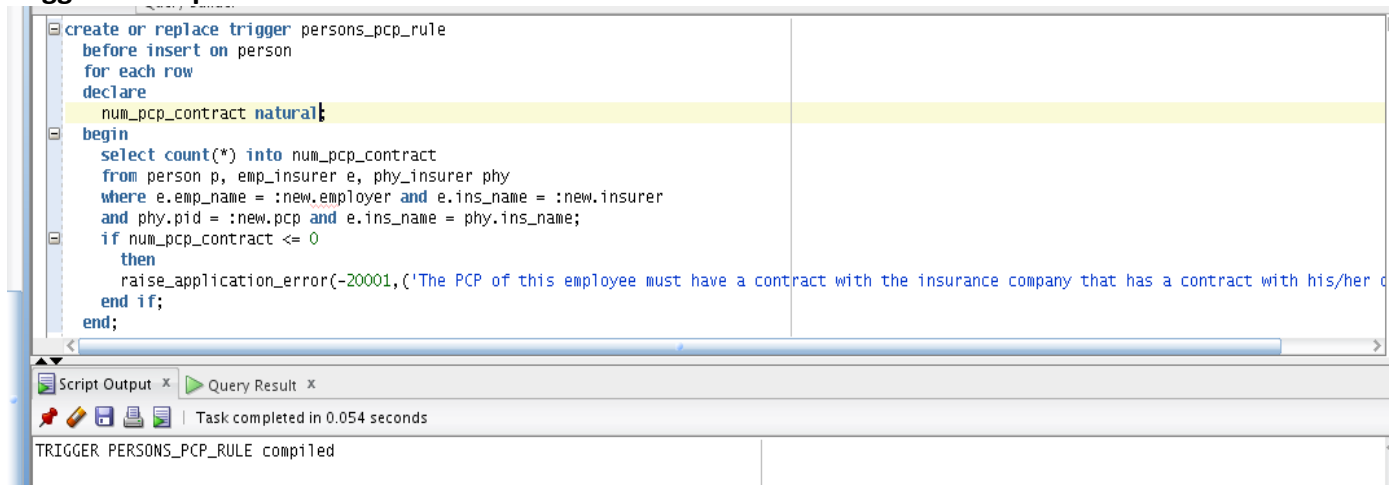


The screenshot shows a database query tool interface. At the top, there's a toolbar with various icons. Below it, a tab labeled 'Query Builder' is active, displaying the SQL query: `select * from person_del_log;`. Below the query editor, there's a 'Script Output' tab and a 'Query Result' tab. The 'Query Result' tab shows the execution status: 'All Rows Fetched: 1 in 0.01 seconds'. Below this, a table of results is displayed with columns: SSN, NAME, DELETE_TIME, and DELETE_USER. The table contains one row of data.

SSN	NAME	DELETE_TIME	DELETE_USER
1 281530797	John Smith	21-JUL-18 02.51.37.968893000 PM	CS579

Second Trigger:

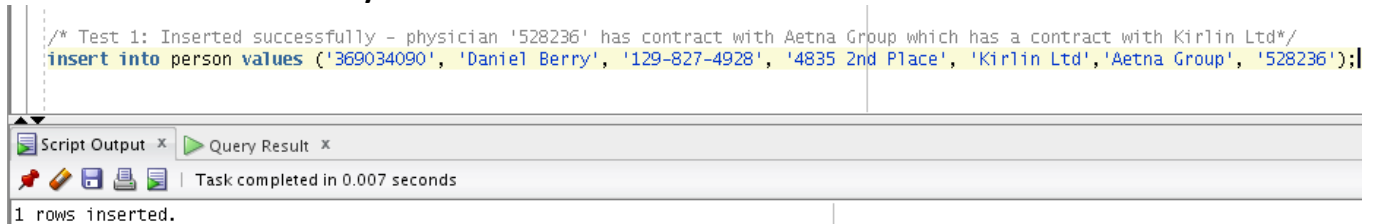
Trigger is compiled



The screenshot shows a database query tool interface. The 'Query Builder' tab displays a PL/SQL trigger definition: `create or replace trigger persons_pcp_rule before insert on person for each row declare num_pcp_contract natural; begin select count(*) into num_pcp_contract from person p, emp_insurer e, phy_insurer phy where e.emp_name = :new.employer and e.ins_name = :new.insurer and phy.pid = :new.pcp and e.ins_name = phy.ins_name; if num_pcp_contract <= 0 then raise_application_error(-20001,('The PCP of this employee must have a contract with the insurance company that has a contract with his/her o end if; end;`. Below the query editor, the 'Query Result' tab shows the execution status: 'Task completed in 0.054 seconds'. Below this, a message indicates: 'TRIGGER PERSONS_PCP_RULE compiled'.

Script Output	Query Result
Task completed in 0.054 seconds	TRIGGER PERSONS_PCP_RULE compiled

Test 1: Inserted successfully



The screenshot shows a database query tool interface. The 'Query Builder' tab displays an SQL insert statement: `/* Test 1: Inserted successfully - physician '528236' has contract with Aetna Group which has a contract with Kirlin Ltd*/ insert into person values ('369034090', 'Daniel Berry', '129-827-4928', '4835 2nd Place', 'Kirlin Ltd', 'Aetna Group', '528236');`. Below the query editor, the 'Query Result' tab shows the execution status: 'Task completed in 0.007 seconds'. Below this, a message indicates: '1 rows inserted.'

Script Output	Query Result
Task completed in 0.007 seconds	1 rows inserted.

Test 2: Throwing an error

```
/* Test 2 - throwing an error - physician '528236' has contract with Aetna Group which doesnt have a contract with Kohler Inc */
insert into person values ('773165355', 'Kevin Jones', '621-199-8245', '13 Sauthoff Circle', 'Kohler Inc', 'Aetna Group', '528236');
```

Script Output x Query Result x

Task completed in 0.018 seconds

Error starting at line 2 in command:
insert into person values ('773165355', 'Kevin Jones', '621-199-8245', '13 Sauthoff Circle', 'Kohler Inc', 'Aetna Group', '528236')
Error report:
SQL Error: ORA-20001: The PCP of this employee must have a contract with the insurance company that has a contract with his/her company
ORA-06512: at "CS579.PERSONS_PCP_RULE", line 10
ORA-04088: error during execution of trigger 'CS579.PERSONS_PCP_RULE'

Third Trigger:

Trigger is compiled

Start Page x company x PROJECT_AFTER_INSERT x PERSON_DEL_LOG x Dang_Hien_p3.

0.058 seconds

Worksheet Query Builder

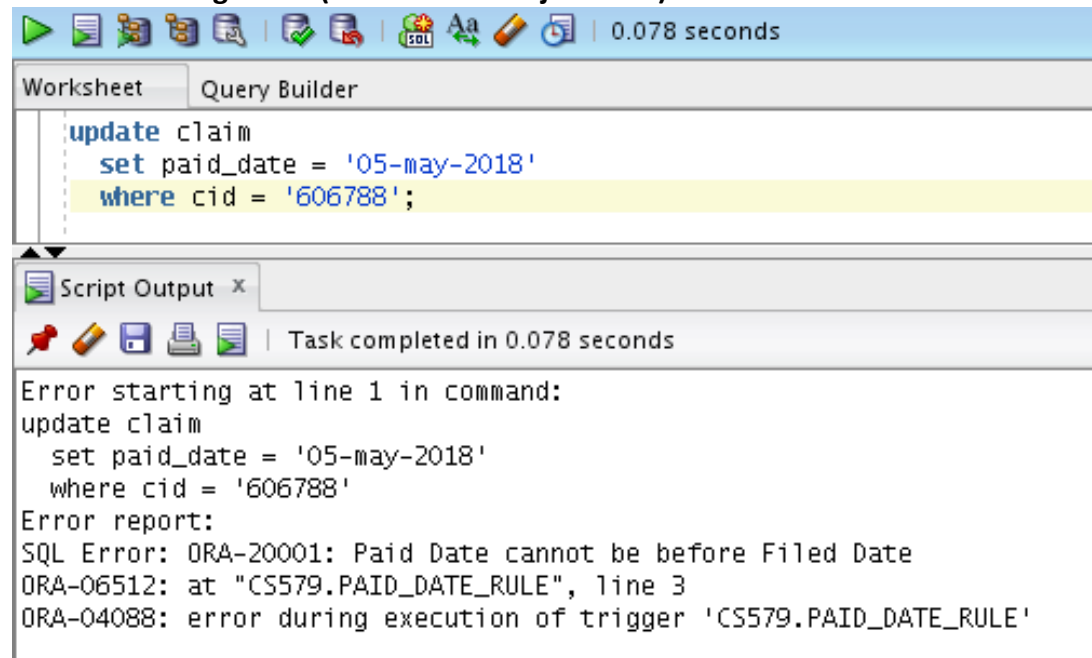
```
create or replace trigger paid_date_rule
before
update of paid_date
on claim
for each row
begin
    if :new.paid_date < :old.file_date then
        raise_application_error(-20001, ('Paid Date cannot be before Filed Date'));
    end if;
end;
```

Script Output x

Task completed in 0.058 seconds

TRIGGER PAID_DATE_RULE compiled

Test 1: throwing error: (Filed Date is 11-jun-2018)



The screenshot shows the SQL Developer interface. The top toolbar includes icons for running, saving, and other database operations, with a timer showing 0.078 seconds. The 'Worksheet' tab is active, displaying the following SQL command:

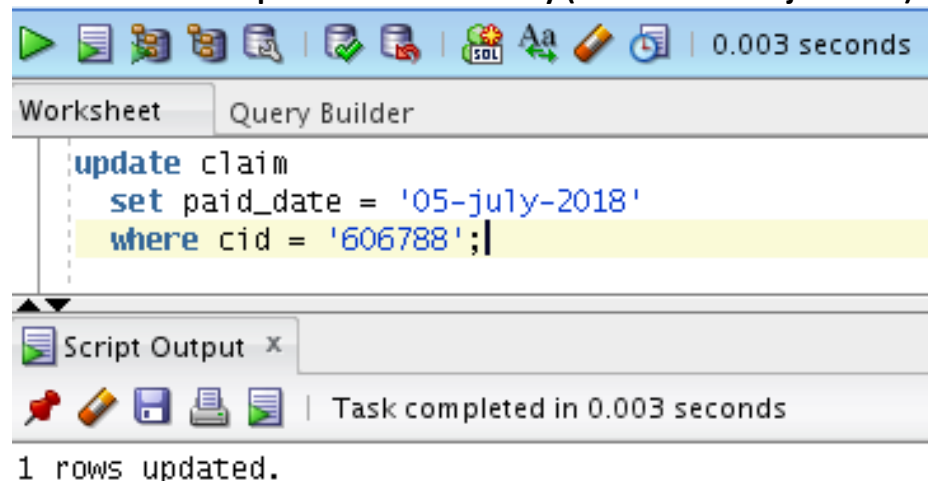
```
update claim
set paid_date = '05-may-2018'
where cid = '606788';
```

Below the SQL editor, the 'Script Output' tab is open, showing the execution results. The status bar indicates 'Task completed in 0.078 seconds'. The output text reads:

Error starting at line 1 in command:
update claim
set paid_date = '05-may-2018'
where cid = '606788'

Error report:
SQL Error: ORA-20001: Paid Date cannot be before Filed Date
ORA-06512: at "CS579.PAID_DATE_RULE", line 3
ORA-04088: error during execution of trigger 'CS579.PAID_DATE_RULE'

Test 2: No error: Update row successfully (Filed Date is 11-jun-2018)



The screenshot shows the SQL Developer interface. The top toolbar includes icons for running, saving, and other database operations, with a timer showing 0.003 seconds. The 'Worksheet' tab is active, displaying the following SQL command:

```
update claim
set paid_date = '05-july-2018'
where cid = '606788';
```

Below the SQL editor, the 'Script Output' tab is open, showing the execution results. The status bar indicates 'Task completed in 0.003 seconds'. The output text reads:

1 rows updated.

Fourth Trigger:

Trigger is complied

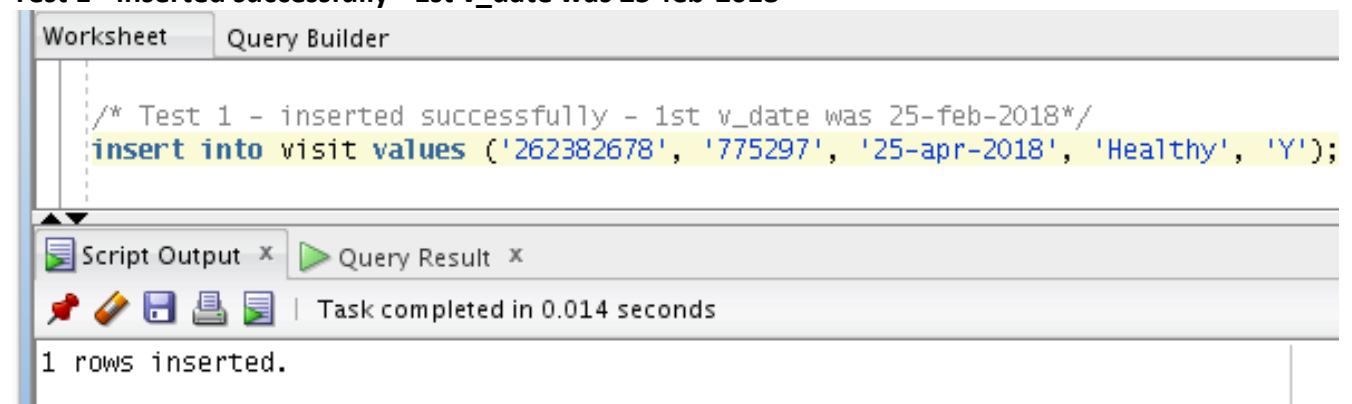


The screenshot shows the SQL Developer interface with the 'Query Builder' tab active. The main editor contains the following SQL code for creating or replacing a trigger:

```
create or replace trigger pcp_visit_rule
before insert on visit
for each row
declare
num_visits natural;
begin
select count(*) into num_visits
from visit
where ssn = :new.ssn and pid = :new.pid and :new.pcp_or_not = 'Y' and (:new.v_date - v_date) <= 30;
if num_visits > 0 then
raise_application_error(-20001, ('Employee' || :new.ssn || 'cannot visit the his/her pcp within 30 days'));
end if;
end;
```

Below the editor, the 'Script Output' tab shows the message: 'Task completed in 0.03 seconds' and 'TRIGGER PCP_VISIT_RULE compiled'.

Test 1 - inserted successfully - 1st v_date was 25-feb-2018



The screenshot shows the SQL Developer interface with the 'Query Builder' tab active. The main editor contains the following SQL code for inserting a row:

```
/* Test 1 - inserted successfully - 1st v_date was 25-feb-2018*/
insert into visit values ('262382678', '775297', '25-apr-2018', 'Healthy', 'Y');
```

Below the editor, the 'Script Output' tab shows the message: 'Task completed in 0.014 seconds' and '1 rows inserted.'

Test 2 - throwing error - 1st v_date was 25-feb-2018






Worksheet

Query Builder

```
/* Test 2 - throwing error - 1st v_date was 25-feb-2018 */  
insert into visit values ('262382678', '775297', '10-mar-2018', 'Healthy', 'Y');
```

Script Output x

Query Result x

     | Task completed in 0.028 seconds

Error starting at line 3 in command:
insert into visit values ('262382678', '775297', '10-mar-2018', 'Healthy', 'Y')
Error report:
SQL Error: ORA-20001: Employee 262382678 cannot visit the his/her pcp within 30 days
ORA-06512: at "CS579.PCP_VISIT_RULE", line 8
ORA-04088: error during execution of trigger 'CS579.PCP_VISIT_RULE'