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**CP5503 ENTERPRISE DATABASE SYSTEMS ORACLE**

**ASSIGNMENT PART2 – TRIGGER**

**Task 1**

create or replace trigger TR\_date\_returned\_chk

before update of date\_returned on Loan

for each row

begin

if (:new.date\_returned > sysdate) then

RAISE\_APPLICATION\_ERROR(-20000, 'date\_returned cannot be greater than current date');

--error code must be between -20999 and 20000

--error message: must be a meaningful error message

end if;

end;

--set date returned -

**testing:**

--invalid

update loan

set date\_returned = sysdate + 1

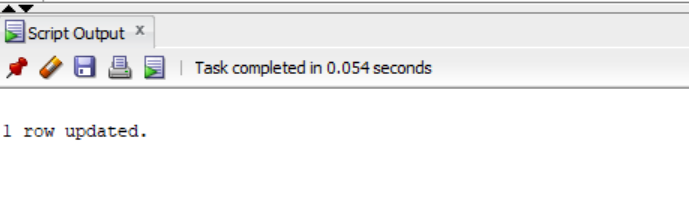
where loan\_id = 6;

--valid

update loan

set date\_returned = sysdate

where loan\_id = 6;



**Task 2**

**Code:**

create or replace FUNCTION FUNC\_IS\_AVAILABLE\_COPY (

COPY\_ID\_P IN NUMBER)

RETURN NUMBER AS

is\_available\_var NUMBER;

loan\_id\_var NUMBER;

BEGIN

-- write a select ... into… statement to get a record from the Loan table having the given copy\_id and

select loan\_id into loan\_id\_var

from loan

where copy\_id = copy\_id\_p

and date\_returned is null;

--not available

is\_available\_var :=0;

RETURN is\_available\_var;

EXCEPTION

WHEN no\_data\_found THEN

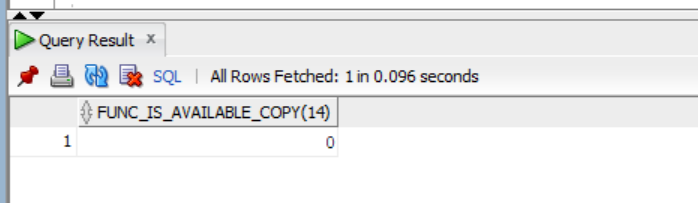
RETURN is\_available\_var; -- it is 1 as defined

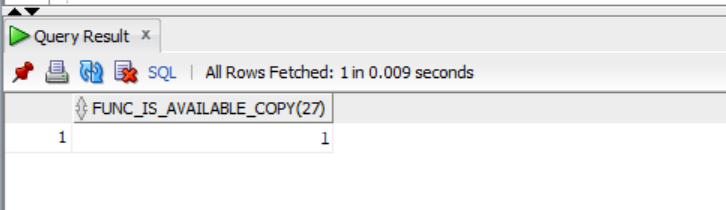
END FUNC\_IS\_AVAILABLE\_COPY;

Testing:

Code:

select FUNC\_is\_available\_copy(14) from dual; --not available

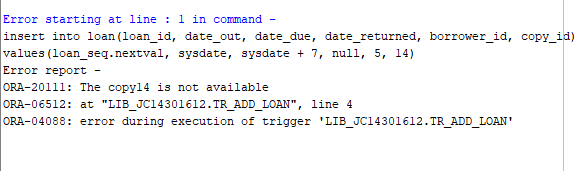


1 is available

**TASK3**

insert into loan(loan\_id, date\_out, date\_due, date\_returned, borrower\_id, copy\_id)

values(loan\_seq.nextval, sysdate, sysdate + 7, null, 5, 14);



insert into loan(loan\_id, date\_out, date\_due, date\_returned, borrower\_id, copy\_id)

values(loan\_seq.nextval, sysdate, sysdate + 7, null, 5, 27)

