**Procedure :**

CREATE OR REPLACE procedure PROJECT.update\_info ( v\_student\_id int , v\_first\_name varchar2,v\_last\_name varchar2,v\_gender varchar2 , v\_address varchar2 , v\_email varchar2 , v\_phone varchar2 , v\_dept\_id number )

is

begin

UPDATE Student

SET

first\_name =v\_first\_name,

last\_name=v\_last\_name,

gender=v\_gender,

address=v\_address,

email=v\_email,

phone=v\_phone,

dept\_id=v\_dept\_id

WHERE student\_id = v\_student\_id;

end;

/

**Function :**

CREATE OR REPLACE function PROJECT.calc\_gpa (v\_student\_id number )

return varchar2

is

v\_credit\_hours number;

v\_gpa number;

v\_grade\_points number;

begin

select sum (c.credit\_hours \* sc.grades) as grade\_points ,

sum(credit\_hours) as total\_credit\_hours

into v\_grade\_points , v\_credit\_hours

from course c

join student\_course sc

on c.course\_id = sc.course\_id

where sc.student\_id = v\_student\_id

group by sc.student\_id ;

v\_gpa := v\_grade\_points / v\_credit\_hours ;

IF v\_gpa between 3.5 and 4 THEN

RETURN 'A';

ELSIF v\_gpa between 2.5 and 3.5 THEN

RETURN 'B';

ELSIF v\_gpa between 1.5 and 2.5 THEN

RETURN 'C';

ELSE

RETURN 'F';

END IF;

end;

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