create or replace procedure ADD\_MEMBER\_CAUSE\_SP (

p\_person\_id IN INTEGER, -- NOT NULL

p\_cause\_name IN VARCHAR -- NOT NULL

)

IS

lv\_person\_id\_num VM\_MEMBER.PERSON\_ID%TYPE;

lv\_cause\_name\_txt VM\_CAUSE.CAUSE\_NAME%TYPE;

ex\_isnull\_id EXCEPTION;

BEGIN

SELECT PERSON\_ID, CAUSE\_NAME

INTO lv\_person\_id\_num, lv\_cause\_name\_txt

FROM VM\_MEMBER, VM\_CAUSE

WHERE person\_ID = p\_person\_id AND CAUSE\_NAME = p\_cause\_name;

IF p\_person\_ID is NULL THEN

RAISE ex\_isnull\_id;

END IF;

IF p\_cause\_name is NULL THEN

RAISE ex\_isnull\_id;

END IF;

INSERT INTO vm\_memcause (

person\_id,

cause\_name

) VALUES (

p\_person\_id,

p\_cause\_name

);

commit;

EXCEPTION

WHEN ex\_isnull\_id THEN

DBMS\_OUTPUT.PUT\_LINE('Error text: "Missing mandatory value for parameter (x) in context (y)"');

DBMS\_OUTPUT.PUT\_LINE('Error meaning: Since both a cause name and an organization id are required, Missing either one causes this error. Here, y = “ADD\_MEMBER\_CAUSE\_SP”. ');

DBMS\_OUTPUT.PUT\_LINE('Error effect: Because a mandatory value is not provided, no data are inserted into the VM\_ORG\_CAUSE table.');

ROLLBACK;

WHEN NO\_DATA\_FOUND THEN

DBMS\_OUTPUT.PUT\_LINE('Error text: "Invalid value for parameter (x) in context (y)."');

DBMS\_OUTPUT.PUT\_LINE('Error meaning. Either the p\_cause\_name value is not found in VM\_MEMCAUSE,or the p\_person\_id value is not found in the VM\_MEMBER table. Here, y = "ADD\_MEMBER\_CAUSE\_SP"');

DBMS\_OUTPUT.PUT\_LINE('Error effect: Because a value is invalid, no data are inserted into the VM\_MEMCAUSE table.');

ROLLBACK;

WHEN OTHERS THEN

DBMS\_OUTPUT.PUT\_LINE('An error occured. ');

DBMS\_OUTPUT.PUT\_LINE('The error number: ' || SQLCODE);

DBMS\_OUTPUT.PUT\_LINE('Error message: ' ||SQLERRM);

ROLLBACK;

END;

create or replace procedure ADD\_ORG\_CAUSE\_SP (

p\_org\_id IN INTEGER, -- NOT NULL

p\_cause\_name IN VARCHAR -- NOT NULL

)

IS

lv\_org\_id\_num VM\_ORGANIZATION.ORGANIZATION\_ID%TYPE;

lv\_cause\_name\_txt VM\_CAUSE.CAUSE\_NAME%TYPE;

ex\_isnull\_id EXCEPTION;

BEGIN

SELECT ORGANIZATION\_ID, CAUSE\_NAME

INTO lv\_org\_id\_num, lv\_cause\_name\_txt

FROM VM\_ORGANIZATION, VM\_CAUSE

WHERE ORGANIZATION\_ID = p\_org\_id AND CAUSE\_NAME = p\_cause\_name;

IF p\_org\_id is NULL THEN

RAISE ex\_isnull\_id;

END IF;

IF p\_cause\_name is NULL THEN

RAISE ex\_isnull\_id;

END IF;

INSERT INTO vm\_orgcause (

organization\_id,

cause\_name

) VALUES (

p\_org\_id,

p\_cause\_name

);

commit;

EXCEPTION

WHEN ex\_isnull\_id THEN

DBMS\_OUTPUT.PUT\_LINE('Error text: "Missing mandatory value for parameter (x) in context (y)"');

DBMS\_OUTPUT.PUT\_LINE('Error meaning: Since both a cause name and an organization id are required, Missing either one causes this error. Here, y = “ADD\_ORG\_CAUSE\_SP”. ');

DBMS\_OUTPUT.PUT\_LINE('Error effect: Because a mandatory value is not provided, no data are inserted into the VM\_ORGCAUSE table.');

ROLLBACK;

WHEN NO\_DATA\_FOUND THEN

DBMS\_OUTPUT.PUT\_LINE('Error text: "Invalid value for parameter (x) in context (y)."');

DBMS\_OUTPUT.PUT\_LINE('Error meaning. Either the p\_cause\_name value is not found in VM\_ORGCAUSE,or the p\_org\_id value is not found in the VM\_ORGANIZATION table. Here, y = "ADD\_ORG\_CAUSE\_SP"');

DBMS\_OUTPUT.PUT\_LINE('Error effect: Because a value is invalid, no data are inserted into the VM\_ORGCAUSE table.');

ROLLBACK;

WHEN OTHERS THEN

DBMS\_OUTPUT.PUT\_LINE('An error occured. ');

DBMS\_OUTPUT.PUT\_LINE('The error number: ' || SQLCODE);

DBMS\_OUTPUT.PUT\_LINE('Error message: ' ||SQLERRM);

ROLLBACK;

END;

create or replace procedure ADD\_MEMBER\_SKILL\_SP (

p\_person\_id IN INTEGER,

p\_skill\_name IN VARCHAR

)

IS

lv\_person\_id\_num VM\_MEMBER.PERSON\_ID%TYPE;

lv\_skill\_name\_txt VM\_SKILL.SKILL\_NAME%TYPE;

ex\_isnull\_id EXCEPTION;

BEGIN

SELECT PERSON\_ID, SKILL\_NAME

INTO lv\_person\_id\_num, lv\_skill\_name\_txt

FROM VM\_MEMBER, VM\_SKILL

WHERE person\_ID = p\_person\_id AND SKILL\_NAME = p\_skill\_name;

IF p\_person\_ID is NULL THEN

RAISE ex\_isnull\_id;

END IF;

IF p\_skill\_name is NULL THEN

RAISE ex\_isnull\_id;

END IF;

INSERT INTO vm\_memskill (

person\_id,

skill\_name

) VALUES (

p\_person\_id,

p\_skill\_name

);

commit;

EXCEPTION

WHEN ex\_isnull\_id THEN

DBMS\_OUTPUT.PUT\_LINE('Error text: "Missing mandatory value for parameter (x) in context (y)"');

DBMS\_OUTPUT.PUT\_LINE('Error meaning: Since both a cause name and an organization id are required, Missing either one causes this error. Here, y = “ADD\_MEMBER\_SKILL\_SP”. ');

DBMS\_OUTPUT.PUT\_LINE('Error effect: Because a mandatory value is not provided, no data are inserted into the VM\_MEMSKILL table.');

ROLLBACK;

WHEN NO\_DATA\_FOUND THEN

DBMS\_OUTPUT.PUT\_LINE('Error text: "Invalid value for parameter (x) in context (y)."');

DBMS\_OUTPUT.PUT\_LINE('Error meaning: Either the p\_skill\_name value is not found in VM\_SKILL, or the p\_person\_id value is not found in the VM\_MEMBER table. Here, y = "ADD\_MEMBER\_SKILL\_SP".');

DBMS\_OUTPUT.PUT\_LINE('Error effect: Because a value is invalid, no data are inserted into the VM\_MEMSKILL table.');

ROLLBACK;

WHEN OTHERS THEN

DBMS\_OUTPUT.PUT\_LINE('An error occured. ');

DBMS\_OUTPUT.PUT\_LINE('The error number: ' || SQLCODE);

DBMS\_OUTPUT.PUT\_LINE('Error message: ' ||SQLERRM);

ROLLBACK;

END;