

DB Assignment 4

Key: Trigger not Invoked, Trigger Invoked

Diagnostic Query 1 changed to:

```
SELECT PERSON, COUNT(NAME) FROM SIGHTINGS
WHERE PERSON = "Jennifer" OR PERSON = "Brad" OR PERSON = "Donna"
      OR PERSON = "Maria" OR PERSON = "Joe"
GROUP BY PERSON;
```

Results of new Diagnostic Query before Triggers were added:

i	PERSON	Flower_Count
	Brad	3
	Donna	23
	Jennifer	128
	Maria	75

Trigger #1

```
CREATE TRIGGER sightings_empty_pointer BEFORE INSERT ON SIGHTINGS
WHEN (NEW.PERSON NOT IN (SELECT NAME FROM MEMBERS))
BEGIN
    SELECT RAISE (ABORT, 'Insert into the SIGHTINGS table references a person that is not found in the database.');
```

END;

```
INSERT INTO SIGHTINGS VALUES ("Douglas dustymaiden", "Jennifer", "Double Mountain", "2008-11-28");
INSERT INTO SIGHTINGS VALUES ("Douglas dustymaiden", "Brad", "Shirley Peak", "2007-08-18");
INSERT INTO SIGHTINGS VALUES ("Douglas dustymaiden", "Donna", "Grouse Meadow", "2011-11-28");
INSERT INTO SIGHTINGS VALUES ("Douglas dustymaiden", "Maria", "Grouse Meadow", "2014-08-16");
INSERT INTO SIGHTINGS VALUES ("Douglas dustymaiden", "Joe", "Piute Peak", "2007-02-17");
```

Diagnostic Query 1:

i	PERSON	COUNT(NAME)
	Brad	4
	Donna	24
	Jennifer	129
	Maria	76

Diagnostic Query 2:

Returns nothing

Trigger #2

```
CREATE TRIGGER sightings_update_ep AFTER INSERT ON SIGHTINGS
WHEN (NEW.PERSON NOT IN (SELECT NAME FROM MEMBERS))
BEGIN
    INSERT INTO MEMBERS (NAME, MEMBERSINCE, NUMSIGHTINGS)
    VALUES (NEW.PERSON, NULL, 1);
```

END;

```
INSERT INTO SIGHTINGS VALUES ("Douglas dustymaiden", "Jennifer", "Double Mountain", "2008-11-28");
INSERT INTO SIGHTINGS VALUES ("Douglas dustymaiden", "Brad", "Shirley Peak", "2007-08-18");
INSERT INTO SIGHTINGS VALUES ("Douglas dustymaiden", "Donna", "Grouse Meadow", "2011-11-28");
INSERT INTO SIGHTINGS VALUES ("Douglas dustymaiden", "Maria", "Grouse Meadow", "2014-08-16");
INSERT INTO SIGHTINGS VALUES ("Douglas dustymaiden", "Joe", "Piute Peak", "2007-02-17");
```

Diagnostic Query 1:

i	PERSON	COUNT(NAME)
	Brad	4
	Donna	24
	Jennifer	129
	Joe	1
	Maria	76

Diagnostic Query 2:

i	NAME	MEMBERSINCE	NUMSIGHTINGS
	Joe	Null	1

DB Assignment 4

Trigger #3

```
CREATE TRIGGER update_L_to_E AFTER INSERT ON SIGHTINGS
WHEN NEW.NAME IN (SELECT GENUS || ' ' || SPECIES FROM FLOWERS)
BEGIN
    UPDATE SIGHTINGS SET NAME = (SELECT COMNAME FROM FLOWERS WHERE NEW.NAME = GENUS || ' ' || SPECIES)
    WHERE NAME = NEW.NAME;
END;
```

```
INSERT INTO SIGHTINGS VALUES ("Sky pilot", "Person X", "Grouse Meadow", "2006-08-18");
INSERT INTO SIGHTINGS VALUES ("Hoar buckwheat", "Person X", "Grouse Meadow", "2006-08-18");
INSERT INTO SIGHTINGS VALUES ("Zigadenus venenosus", "Person X", "Grouse Meadow", "2006-08-18");
INSERT INTO SIGHTINGS VALUES ("Carex limosa", "Person Y", "Grouse Meadow", "2006-08-18");
INSERT INTO SIGHTINGS VALUES ("Draperia", "Person Z", "Grouse Meadow", "2006-08-18");
```

```
SELECT * FROM SIGHTINGS WHERE PERSON = "Person X" OR PERSON = "Person Y" OR PERSON = "Person Z";
```

NAME	PERSON	LOCATION	SIGHTED
Sky pilot	Person X	Grouse Meadow	2006-08-18
Hoar buckwheat	Person X	Grouse Meadow	2006-08-18
Death camas	Person X	Grouse Meadow	2006-08-18
Mud sedge	Person Y	Grouse Meadow	2006-08-18
Draperia	Person Z	Grouse Meadow	2006-08-18