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**DDL/DML**

SET SQL\_SAFE\_UPDATES = 0;

CREATE TABLE city (

cityID int NOT NULL,

districtName varchar(50) NOT NULL,

PRIMARY KEY (cityID)

);

CREATE TABLE joannestore (

cityID int NOT NULL,

storeName varchar(50) NOT NULL,

storeManager varchar(50) NOT NULL,

storeRevenue float NOT NULL,

PRIMARY KEY (cityID, storeName),

CONSTRAINT joannestore\_fk FOREIGN KEY (cityID) REFERENCES city (cityID)

);

insert into city (cityID, districtName)

values(1, "South Bay"),(2, "South Bay");

insert into joannestore (cityID, storeName, storeManager, storeRevenue )

values (1, "Palo Verde", "Eliza Doolittle", 500005.82),

(1, "Towne Center", "Milly Cyrus", 382234.88),

(2, "Fashion Center", "David Duchovny", 128000.83);

insert into joannestore (cityID, storeName, storeManager, storeRevenue )# expected to fail

values (2, "Towne Center", "Michael J. Fox", 512384.22);

Update joannestore set storeName="Palo Verde" WHERE cityID=2;# expected to fail

**Insert Trigger:**

CREATE DEFINER=`root`@`localhost` TRIGGER `joannestore\_BEFORE\_INSERT` BEFORE INSERT ON `joannestore` FOR EACH ROW BEGIN

call store\_check(new.cityID,new.storeName);

END

**Update Trigger:**

CREATE DEFINER=`root`@`localhost` TRIGGER `joannestore\_BEFORE\_UPDATE` BEFORE UPDATE ON `joannestore` FOR EACH ROW BEGIN

call store\_check(new.cityID,new.storeName);

END

**Store\_check procedure:**

CREATE DEFINER=`root`@`localhost` PROCEDURE `store\_check`(cityID\_s int, storeName\_s varchar(50))

BEGIN

DECLARE Count INT;

SELECT count(storeName) INTO Count from city INNER JOIN joannestore USING(cityID) WHERE storeName=storeName\_s

AND districtName=(SELECT districtName from city WHERE cityID= cityID\_s);

IF(Count>0) THEN

SIGNAL SQLSTATE '40000'

SET MESSAGE\_TEXT='The store already exist in that district';

END IF;

END

**Test trigger data before insert:**

**City table:**

|  |  |
| --- | --- |
| # cityID | districtName |
| 1 | South Bay |
| 2 | South Bay |

**Store table:**

|  |  |  |  |
| --- | --- | --- | --- |
| # cityID | storeName | storeManager | storeRevenue |
| 1 | Palo Verde | Eliza Doolittle | 500006 |
| 1 | Towne Center | Milly Cyrus | 382235 |
| 2 | Fashion Center | David Duchovny | 128001 |

**After insert:**

|  |  |  |  |
| --- | --- | --- | --- |
| # cityID | storeName | storeManager | storeRevenue |
| 1 | Palo Verde | Eliza Doolittle | 500006 |
| 1 | Towne Center | Milly Cyrus | 382235 |
| 2 | Fashion Center | David Duchovny | 128001 |

**Message:**

|  |  |  |  |
| --- | --- | --- | --- |
| 10:19:24 | insert into joannestore (cityID, storeName, storeManager, storeRevenue )# expected to fail values (2, "Towne Center", "Michael J. Fox", 512384.22) | Error Code: 1644. The store already exist in that district | 0.000 sec |

**Test trigger data after insert:**

|  |  |  |  |
| --- | --- | --- | --- |
| 10:22:02 | Update joannestore set storeName="Palo Verde" WHERE cityID=2 | Error Code: 1644. The store already exist in that district | 0.016 sec |