

VIOLATION OF PRIMARY KEY

Department table

	Dept_No	Dept_Name	No. of Employees
▶	101	Corporate	100
	102	Sales	300
*	NULL	NULL	NULL

If we insert duplicate key:

INSERT INTO Department VALUES(102, 'Accounts', 250);

We get an error:

73 00:57:12 insert into department values(102, 'Accounts', 250) Error Code: 1062. Duplicate entry '102' for key 'department.PRIMARY'

VIOLATION OF UNIQUE KEY

Branch table

Branch_ID	Branch_Name	No. of Employees	Location	Manager_ID
1	Scranton	50	Pennsylvania	1001

Here manager_id must be a unique value since two branches cannot have the same manager.

If we insert duplicate key for manager_id:

INSERT INTO branch VALUES(02, 'Corporate', 50, 'New York', 1001);

We get the following error:

21 16:47:49 insert into branch values (02, 'Corporate', 50, 'New York', 1001) Error Code: 1062. Duplicate entry '1001' for key 'branch.Manager_ID_UNIQUE'

VIOLATION OF NOT NULL KEY

If we insert null value for the first name:

```
INSERT INTO Employee VALUES(1005, NULL, NULL, 1978-10-01, 50000, 01);
```

We get the following error:

87 01:03:01 insert into employee values (1005,NULL,NULL, 19781001, 50000,102,01) Error Code: 1048. Column 'First Name' cannot be null

VIOLATION OF DEFAULT KEY CONSTRAINT:

If we do not insert any value for first name in employee table, it gives the following error:

90 01:04:17 insert into employee(employee_id) values(1006) Error Code: 1364. Field 'First Name' doesn't have a default value

CHANGE IN FOREIGN KEY CONSTRAINT WHEN WE INSERT TUPLE TO DEPENDANT TABLE FIRST

Since the employee table is dependant on the branch table, we cannot add a branch_id to employee table if it doesn't exist already.

If we insert tuple to employee table before the branch table, the following error occurs:

16:10:37 insert into employee values(1009, 'Dwight', 'Shrute', 19730408, 50000, 102, 02) Error Code: 1452. Cannot add or update a child row: a foreign key constraint fails ('companydb`.`employee`, CONSTRAINT 'Branch_ID' FOREIGN KEY ('Branch_ID') REFERENCES 'branch' ('Branch_ID') ON DELETE SET NULL) 0.375 sec