

```
mysql> INSERT INTO Book VALUES
```

```
-> ('B6','Networking','A.Alex',4,3500.00,'Pub009');
```

```
ERROR 1452 (23000): Cannot add or update a child row: a foreign key constraint fails (`BookShopDB`.`Book`, CONSTRAINT `Book_ibfk_1` FOREIGN KEY (`PubID`) REFERENCES `Publisher` (`PubID`))
```

```
mysql> █
```

```
mysql> UPDATE Publisher
```

```
-> SET PubID = 'Pub011'
```

```
-> WHERE PubID = 'Pub001';
```

```
ERROR 1451 (23000): Cannot delete or update a parent row: a foreign key constraint fails (`BookShopDB`.`Book`, CONSTRAINT `Book_ibfk_1` FOREIGN KEY (`PubID`) REFERENCES `Publisher` (`PubID`))
```

```
mysql> █
```

```
mysql> DELETE FROM Publisher
```

```
-> WHERE PubID = 'Pub001';
```

```
ERROR 1451 (23000): Cannot delete or update a parent row: a foreign key constraint fails (`BookShopDB`.`Book`, CONSTRAINT `Book_ibfk_1` FOREIGN KEY (`PubID`) REFERENCES `Publisher` (`PubID`))
```

```
mysql> █
```

```
mysql> ALTER TABLE Book ADD CONSTRAINT FK_PubB FOREIGN KEY (PubID) REFERENCES Publisher (PubID);
```

```
Query OK, 5 rows affected (0.73 sec)
```

```
Records: 5  Duplicates: 0  Warnings: 0
```

```
mysql> INSERT INTO Book VALUES ('B6','Networking','A.Alex',4,3500.00,'Pub009');  
ERROR 1452 (23000): Cannot add or update a child row: a foreign key constraint fails (`BookShopDB`.`Book`, CONSTRAINT `FK_PubB` FOREIGN KEY (`PubID`) REFERENCES `Publisher` (`PubID`))
```

```
mysql> UPDATE Publisher SET PubID = 'Pub011' WHERE PubID = 'Pub001';  
ERROR 1451 (23000): Cannot delete or update a parent row: a foreign key constraint fails (`BookShopDB`.`Book`, CONSTRAINT `FK_PubB` FOREIGN KEY (`PubID`) REFERENCES `Publisher` (`PubID`))
```

```
mysql> DELETE FROM Publisher WHERE PubID = 'Pub001';  
ERROR 1451 (23000): Cannot delete or update a parent row: a foreign key constraint fails (`BookShopDB`.`Book`, CONSTRAINT `FK_PubB` FOREIGN KEY (`PubID`) REFERENCES `Publisher` (`PubID`))
```

```
mysql> █
```

```
mysql> ALTER TABLE Book ADD CONSTRAINT FK_PubB FOREIGN KEY (PubID) REFERENCES Publisher (PubID) ON DELETE RESTRICT ON UPDATE RESTRICT;
```

```
\Query OK, 5 rows affected (0.84 sec)
```

```
Records: 5  Duplicates: 0  Warnings: 0
```

```
mysql> INSERT INTO Book VALUES ('B6','Networking','A.Alex',4,3500.00,'Pub009');  
ERROR 1452 (23000): Cannot add or update a child row: a foreign key constraint fails (`BookShopDB`.`Book`, CONSTRAINT `FK_PubB` FOREIGN KEY (`PubID`) REFERENCES `Publisher` (`PubID`))
```

```
mysql> UPDATE Publisher SET PubID = 'Pub011' WHERE PubID = 'Pub001';  
ERROR 1451 (23000): Cannot delete or update a parent row: a foreign key constraint fails (`BookShopDB`.`Book`, CONSTRAINT `FK_PubB` FOREIGN KEY (`PubID`) REFERENCES `Publisher` (`PubID`))
```

```
mysql> DELETE FROM Publisher WHERE PubID = 'Pub001';  
ERROR 1451 (23000): Cannot delete or update a parent row: a foreign key constraint fails (`BookShopDB`.`Book`, CONSTRAINT `FK_PubB` FOREIGN KEY (`PubID`) REFERENCES `Publisher` (`PubID`))
```

```
mysql> █
```

cssuser@e-lab-086: ~

```
mysql> ALTER TABLE Book ADD CONSTRAINT FK_PubB FOREIGN KEY (PubID) REFERENCES Publisher (PubID) ON DELETE CASCADE ON UPDATE CASCADE;
```

```
Query OK, 5 rows affected (0.72 sec)
```

```
Records: 5 Duplicates: 0 Warnings: 0
```

```
mysql> UPDATE Publisher SET PubID = 'Pub011' WHERE PubID = 'Pub001';
```

```
Query OK, 1 row affected (0.04 sec)
```

```
Rows matched: 1  Changed: 1  Warnings: 0
```

```
mysql> INSERT INTO Book VALUES ('B6','Networking','A.Alex',4,3500.00,'Pub011');
```

```
Query OK, 1 row affected (0.03 sec)
```

```
mysql> SELECT * FROM Book;
```

BookID	Title	Author	Category	Price_Rs	PubID
B1	Excel	R.David	2	1800.00	Pub002
B2	Computers	M.Thomas	4	2500.00	Pub002
B3	Access	P.Paul	2	3000.00	Pub003
B4	Arts	W.Shiva	1	1000.00	Pub004
B5	Science	A.Rahul	3	900.00	Pub011
B6	Networking	A.Alex	4	3500.00	Pub011

```
6 rows in set (0.00 sec)
```

```
mysql> DELETE FROM Publisher WHERE PubID = 'Pub011';
```

```
Query OK, 1 row affected (0.03 sec)
```

```
mysql>
```

Query OK, 0 rows affected (0.07 sec)

Records: 0 Duplicates: 0 Warnings: 0

```
mysql> ALTER TABLE Book ADD CONSTRAINT FK_PubB FOREIGN KEY (PubID) REFERENCES Publisher (PubID) ON DELETE SET NULL ON UPDATE SET NULL;
```

Query OK, 4 rows affected (1.21 sec)

Records: 4 Duplicates: 0 Warnings: 0

```
mysql> UPDATE Publisher SET PubID = 'Pub044' WHERE PubID = 'Pub004';
```

Query OK, 1 row affected (0.05 sec)

Rows matched: 1 Changed: 1 Warnings: 0

```
mysql> SELECT * FROM Book;
```

BookID	Title	Author	Category	Price_Rs	PubID
B1	Excel	R.David	2	1800.00	Pub002
B2	Computers	M.Thomas	4	2500.00	Pub002
B3	Access	P.Paul	2	3000.00	Pub003
B4	Arts	W.Shiva	1	1000.00	NULL

4 rows in set (0.00 sec)

```
mysql> █
```