Foreign Key

id	Name	course_id
1	Rahul	100
2	Raj	101
3	Riti	102

course_id	name	teacher	id
100	Hindi	Ram	1
101	Maths	Mohan	2
102	English	Priya	3

Student
Base/referenced/parent table

Course
Refrencing/child table

Foreign Key

Foreign key helps to perform operations related to the parent table, such as joining tables or ensuring referential integrity.

Query:

```
CREATE TABLE childtableName (
childld INT PRIMARY KEY,
baseld INT,
FOREIGN KEY (baseld) REFERENCES baseTableName(baseld)
);
```

Cascading in Foreign Key

Cascading are a set of rules which dictate what actions should be taken automatically when a referenced row in the parent table is modified or deleted.

1. CASCADE: If a row in the parent table is updated or deleted, all related rows in the child table will be automatically updated or deleted.

2.**SET NULL**: If a row in the parent table is updated or deleted, all corresponding foreign key values in the child table will be set to NULL.

3. RESTRICT or NO ACTION: Blocks the modification or deletion of a referenced row in the parent table if related rows exist in the child table, thus maintaining referential integrity.

Cascading in Foreign Key

These cascading actions help maintain the integrity of the data across related tables in the database.

1.ON DELETE CASCADE
2.ON UPDATE CASCADE

Cascading in Foreign Key

1. ON DELETE CASCADE: The ON DELETE CASCADE clause indicates that if a row in the parent table (parent_table) is deleted, all corresponding rows in the child table (child_table) will be automatically deleted as well.

QUERY:

```
CREATE TABLE childtableName (
childld INT PRIMARY KEY,
baseld INT,
FOREIGN KEY (baseld) REFERENCES baseTableName(baseld)
ON DELETE CASCADE
);
```

Cascading in Foreign Key

2.**ON UPDATE CASCADE**: The ON UPDATE CASCADE clause indicates that if a row in the parent table (parent_table) is updated, all corresponding rows in the child table (child_table) will be automatically updated as well.

QUERY:

```
CREATE TABLE childtableName (
childld INT PRIMARY KEY,
baseld INT,
FOREIGN KEY (baseld) REFERENCES parenttableName(childld)
ON UPDATE CASCADE
);
```