Referential Actions for Foreign keys in MySQL

When an UPDATE or DELETE operation affects a key value in the parent table that has matching rows in the child table, the result depends on the *referential action* specified using ON UPDATE and ON DELETE subclauses of the FOREIGN KEY clause. MySQL supports five options regarding the action to be taken, listed here:

- CASCADE: Delete or update the row from the parent table, and automatically delete or update the matching rows in the child table. Both ON DELETE CASCADE and ON UPDATE CASCADE are supported. Between two tables, do not define several ON UPDATE CASCADE clauses that act on the same column in the parent table or in the child table.
- SET NULL: Delete or update the row from the parent table, and set the foreign key column or columns in the child table to NULL. Both ON DELETE SET NULL and ON UPDATE SET NULL clauses are supported.

  If you specify a SET NULL action, *make sure that you have not declared the columns in the child table as NOT NULL*.
- RESTRICT: Rejects the delete or update operation for the parent table. Specifying RESTRICT (or NO ACTION) is the same as omitting the ON DELETE or ON UPDATE clause.
- NO ACTION: A keyword from standard SQL. In MySQL, equivalent to RESTRICT. The MySQL Server rejects the delete or update operation for the parent table if there is a related foreign key value in the referenced table. Some database systems have deferred checks, and NO ACTION is a deferred check. In MySQL, foreign key constraints are checked immediately, so NO ACTION is the same as RESTRICT.
- SET DEFAULT: This action is recognized by the MySQL parser, but both InnoDB and NDB reject table definitions containing ON DELETE SET DEFAULT or ON UPDATE SET DEFAULT clauses.