Write SQL to create the following database schema

There should be a table for students. Each student will have an id(pk), a first name, and a last name.

There should be a table for professors. Each professor will have an id(pk) and  first name and a last name.

There should be a table for classes. Each class should have an id(pk), a name, and a professor(fk) that teaches the class.

There should be a students\_courses table that has records for each class(fk) that a student(fk) takes and his grade. Add a primary key (up to you how)

Set up appropriate primary keys and foreign keys (marked above as pk - primary key and fk - foreign key)

Make it so that when a student is deleted, all the class records for that student are deleted as well, since the student no longer takes any classes (on delete cascade), but when a professor is deleted, the classes taught by that professor get NULL for the professor ID since no one is now teaching the class, but the class doesn't get deleted. (on delete set null).

For both cases, make it so that any updates are cascaded (on update cascade).

Insert some records and prove to yourself that the primary and foreign key constraints do behave as desired, e.g. can’t have two students with same id. can’t have a student record for non-existent student.