

SCRIPT FOR IN-CLASS DEMO EXAMPLE OF DEFERRABLE FOREIGN KEY CONSTRAINT

Create tables

Student (id, first, last, advisor_id)

Advisor (id, first, last, student_id)

Now, try inserting tuples in the advisor relation or student relation.

```
INSERT INTO advisor VALUES (11, 'Mary', 'Jones', 1)
INSERT INTO student VALUES (1, 'John', 'Smith', 11);
```

You will get foreign key violation error (catch 22!).

Use DEFERRABLE INITIALLY DEFERRED

If we declare a constraint to be DEFERRABLE, then we have the option of having it wait until a transaction is complete before checking the constraint. We follow the keyword DEFERRABLE by either INITIALLY DEFERRED. Then, checking will be deferred to just before each transaction commits.

```
ALTER TABLE advisor
ADD FOREIGN KEY (student_id)
    REFERENCES student(id)
    DEFERRABLE INITIALLY DEFERRED

INSERT INTO advisor VALUES (11, 'Mary', 'Jones', 1)
INSERT INTO student VALUES (1, 'John', 'Smith', 11);

DELETE FROM student WHERE id = 1;
DELETE FROM advisor WHERE id = 11;
```

NOTE: All the queries typed in phpPgAdmin are executed as one transaction.