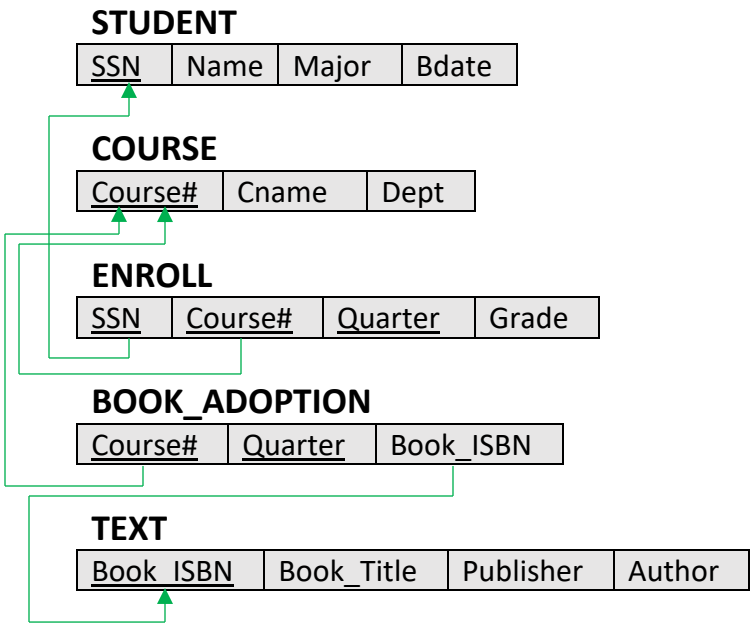
CSC430/530 – Database Management Systems
Hands-on activity – Foreign Keys & Referential Integrity Constraints

Consider following relations for a database that keeps track of student enrollment in courses and the books adopted for each course:

STUDENT(SSN, Name, Major, Bdate)
COURSE(Course#, Cname, Dept)
ENROLL(SSN, Course#, Quarter, Grade)
BOOK_ADOPTION(Course#, Quarter, Book_ISBN)
TEXT(Book_ISBN, Book_Title, Publisher, Author)

Specify foreign keys and referential integrity constraints in the provided relational schema diagram.



SOLUTION

The schema has the following four foreign keys:

- The attribute SSN of relation ENROLL that references relation STUDENT.
- The attribute Course# in relation ENROLL that references relation COURSE.
- The attribute Course# in relation BOOK_ADOPTION that references relation COURSE.
- The attribute Book_ISBN of relation BOOK_ADOPTION that references relation TEXT.