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Lab 6: Normalization

Question 1

1. ISBN, Author\_Num 🡪 BookTitle, LastName, Publisher, Royalty, Edition (Functional Dependency)  
   ISBN 🡪 BookTitle, Publisher, Edition (Partial Dependency)  
   BookTitle 🡪 Publisher (Transitive Dependency)  
   Authour\_Num 🡪 LastName (Partial Dependency)

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Description automatically generated

A screenshot of a computer

Description automatically generated with low confidence

Question 2

1. The relational schema for the STUDENT table is as follows:  
   STUDENT(**STU\_NUM,** STU\_LNAME, STU\_MAJOR, DEPT\_CODE, DEPT\_NAME, DEPT\_PHONE, COLLEGE\_NAME, ADVISOR\_LNAME, ADVISOR\_OFFICE, ADVISOR\_BLDG, ADVISOR\_PHONE, STU\_GPA, STU\_HOURS, STU\_CLASS)

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1. The relational schema is as follows:

STUDENT(STU\_NUM, STU\_LNAME, STU\_MAJOR, DEPT\_CODE, ADVISOR\_NUM, STU\_GPA, STU\_CLASS, STU\_HOURS)  
DEPARTMENT(DEPT\_CODE, DEPT\_NAME, DEPT\_PHONE, COLL\_CODE)

COLLEGE(COLL\_CODE, COLL\_NAME)

ADVISOR(ADVISOR\_LNAME, ADVISOR\_OFFICE, ADVISOR\_BLDG, ADIVOSR\_PHONE)

OFFICE(ADVISOR\_OFFICE, ADVISOR\_BLDG)

Here we keep it in 2NF since we need the transitive dependency between stu\_major and dept\_code in order to link the student to their corresponding advisor.

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