

CSCI235: Database Systems

Laboratory 2

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Task 1

BOOK

Call-number	ISBN	Title	Publisher

ISBN \rightarrow title, publisher

Call-number \rightarrow title, publisher

Assuming:

Title \nrightarrow publisher

ISBN \nrightarrow call-number

Redundancies will occur in the Book relational table due to: ISBN \rightarrow title, publisher and Call-number \rightarrow title, publisher

STUDENT

Student-number	First-name	Last-name	Degree

Student-number \rightarrow first-name, last-name, degree

Assuming:

First-name \nrightarrow last-name, degree

No redundancies occur as each student number should only be listed once.

BORROW

Call-number	ISBN	Title	student-number	Borrow-timestamp

ISBN \rightarrow title

Call-number \rightarrow title

Assuming:

Student-number \nrightarrow borrow-timestamp (same student can borrow at multiple times)

Redundancies occur due to ISBN \rightarrow title and Call-number \rightarrow title as each borrow instance will show the same title and ISBN/call-number

LIBRARY

Campus-name	Building-number	Employee-number	Full-name

Campus-name → building-number

Employee-number → full-name

Redundancies occur due to Employee-number → full-name if they work at more than one library, and Campus-name → building-number as it is repeated for each employee.