A. Consider the relation called BookInfo that tracks books, the book's author(s), and the book’s publisher information.

BookInfo (titleID, bookTitle, bookType, bookPrice, authorID, authorName, authorAddress, publisherID, publisherName, publisherAddress, authorNameOrder, royaltyShare)

The functional dependencies:

* titleID -> bookTitle, bookType, bookPrice, publisherID
* authorID -> authorName, authorAddress
* publisherID -> publisherName, publisherAddress
* authorID, titleID -> authorNameOrder, royaltyShare

B. Consider a system that tracks projects in departments, the employees assigned to them, and the hours charged to the projects by each employee. In this company a department is managed by manager at each location (in other words the finance department in Saskatoon has a manager, as does the finance department in Regina). Projects are tied to a department and a department is identified in the system with a specific department number.

Project (projNumber, projName, projLocation, deptNumber, deptLocation, deptName,

deptManager, empName, empID, empBirthDate, empAddress, hours)

The functional dependencies:

* projNumber -> projName, projLocation, deptNumber
* empID -> empName, empBirthDate, empAddress, deptNumber
* deptNumber -> deptName
* projNumber, empID -> hours
* ~~deptLocation, deptNumber -> deptManager~~

Assumption:

deptNumber is the same across locations.

empID has 1-1 to deptNumber

Assumptions are a big part of how our functional dependencies are worded. Different assumptions will result in different FD.

C. Consider the relation, CourseRegistration, which tracks students, courses and individual marks for each course. Like CST, the courses can be delivered to several sections on different days and times, but unlike CST each section only has that course once per week.

CourseRegistration( studentID, studentName, studentAddress, courseID, section, midtermMark, finalMark, courseName, credits, term, day, room, startTime, endTime )

The functional dependencies:

* studentID -> studentName, studentAddress
* courseID -> courseName, credits
* courseID, section -> term, day, room, startTime, endTime
* studentID, courseID, section -> midtermMark, finalMark

**STOPPED HERE 09/22**