Homework: Normalization

- Make sure that your decomposition is lossless.
- Make sure that you underline the key of every relation you produce.
- Answer ***all*** the questions although I may check only some of them for grading.

(1) _____

WorksOn (empID, projID, projMgr, projName, payRate, hoursPerWeek)

    Given that: projMgr $\rightarrow$ projID
                         projID $\rightarrow$ projName

- What is the highest normal form that the above relation satisfies? _____

- Decomposition into BCNF:

(2) _____

CarSale (car#, salesman#, dateSold, commissionRate, discount)

    Given that: Date_sold $\rightarrow$ discount
                              salesman# $\rightarrow$ commissionRate
                              car# $\rightarrow$ Date_sold

- What is the highest normal form that the above relation satisfies? _____

- Decomposition into BCNF:

Book (<u>title, author</u>, type, price, affiliation, publisher)

Given that: title → type, publisher
type → price
author → affiliation

- What is the highest normal form that the above relation satisfies? _____

- Decomposition into BCNF: