**Due to the midterm, some contents of week6 were moved to week7. Students should attempt this worksheet after midterm at week7 (i.e., at the same time as worksheet7). There is no homework on week6.**

The purpose of a worksheet is to provide a support structure for your study and to provide better coverage of routine introductory exercises prior to completing more challenging homework assignments. Much of the text comes from questions that arise during the course.

Please attempt the worksheet on your own. Answers are provided under the Practice module.

 To receive credit for completing the worksheet, you must write 'Done' in a textbox on D2L submission folder when you have finished the worksheet. Do not paste your work. Just say 'Done'.

Q1. Given a R(A,B,C,D,E) and its functional dependency set F = {D → A, BA → C, C → E, E → DB}, determine the closure of (i) A, i.e. A+ and (ii) C i.e., C+.

Q2. Given an R(A,B,C,D,E) and its functional dependency set F = {A → C, D → E, E → D}, determine the closure of (i) A, i.e. A+ and (ii) B i.e., B+, and (iii) AB, i.e., (AB)+. Is (AB)same as union of A+ and B+?

Q3. Given a R(A,B,C,D,E) and its functional dependency set F = {A → B, A → C, CD → E,B → D,E → A}, which of the following functional dependencies are implied:

(i) CD → AC, (ii) BD → CD, (iii) BC → CD, (iv) AC → BC