**CSCD 327 Lab 7 (10 points)**

**Due: 9am on Nov 28, 2016**

**Please submit your solution via Canvas!**

A given relation R={A, B, C, D, E}, and a given set of FDs F={AB🡪C, DE🡪C, B🡪D}.

* 1. Is R in BCNF? If not, do the decomposition accordingly.

**No**

**R1 = {B,D} R2 = {A,B,C,E}**

* 1. Is your decomposition a lossless-join decomposition? Why?

**Yes, because R1 ∩ R2 ® R1**

* 1. Is your decomposition a dependency-preserving decomposition? Why?

**No, because within R1 there is no A, C, D, or E, therefore the FD’s within the original F cannot be applied to R1**

* 1. List all the candidate keys of relation R.

**A, AB, DE**

* 1. Is R in the 3rdNF? Why?

**Yes, because all α in F+ are super keys**