Today’s class: relational schema design, BCNF decomposition; §§ 3.{4,5}. Next class: 4NF, 3NF, etc. §§ 3.*

1. List the members of your group below. Underline your name.

2. Consider $R(A, B, C, D, E)$ with dependencies

   \begin{align*}
   AB & \rightarrow C \\
   BC & \rightarrow A \\
   D & \rightarrow E \\
   CE & \rightarrow B
   \end{align*}

   List all keys of $R$. Justify your answer briefly.

3. Project the dependencies of Question 2 onto the relation $R'(A, B, C)$. Depict some intermediate steps.
4. Decompose $R$ as necessary to generate a BCNF schema. For each decomposition used, clearly indicate the dependency used and the relations before and after the decomposition. List the projected dependencies for each decomposed relation.