

### Exercise 3

$R = (A, B, C, D)$ .

$F = \{C \rightarrow D, C \rightarrow A, B \rightarrow C\}$ .

Question 1: Compute the closure of the attribute  $B^+$ . Identify all candidate keys for  $R$ .

Question 2: Does  $R$  satisfy 3NF or BCNF?

Question 3: Decompose  $R$  into a set of BCNF relations.

Question 4: Decompose  $R$  into a set of 3NF relations.

Notes:

Deadline: **May 21<sup>st</sup>**.

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