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CPSC 304: Introduction to Relational Algebra
Normalization 2 In-Class Exercise

Consider a relation S(G, H, J, K). The following FDs are given:

G → H
JK→G
H→K

$G^+ = \{G, H\}$ not key

$JK^+ = \{J, K, G, H, K\}$ key

$H^+ = \{H, K\}$ not key

$G \rightarrow K$.

Is S in BCNF? Why or why not?

If it is not in BCNF:

- Decompose into BCNF as covered in class.
- Circle the relations in your final answer.
- Underline the keys in your final answer.

Show your work. Write your answer here:

no, both G and H are not keys