



CSCI 4380 - Database Systems

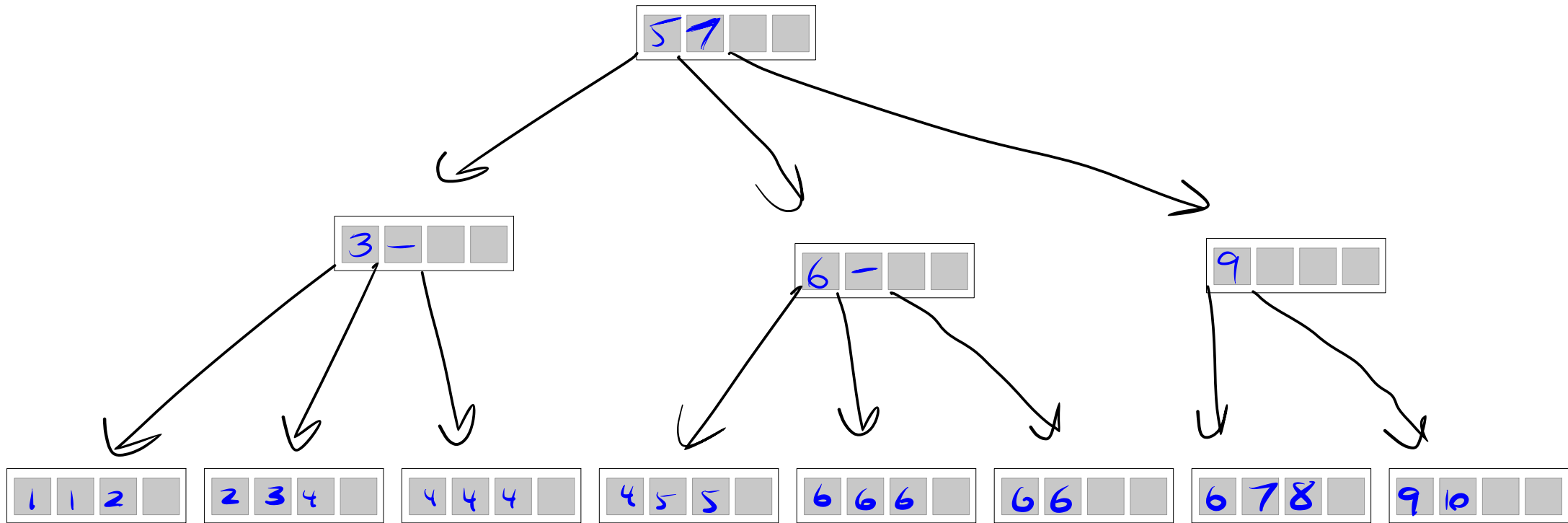
Fall 2020

Lecture 20 1:

B-Tree indices

Indexing non-unique and
multiple attributes

B-tree with
non-unique values



$X = 'C'$ & $Y = 8$

$X = 'J'$ & $3 \leq Y \leq 8$

search for $(J, 3) \rightarrow (J, 8)$

Index on $R(X, Y)$

$'C' \leq X \leq 'E'$ &

$3 \leq Y \leq 8$

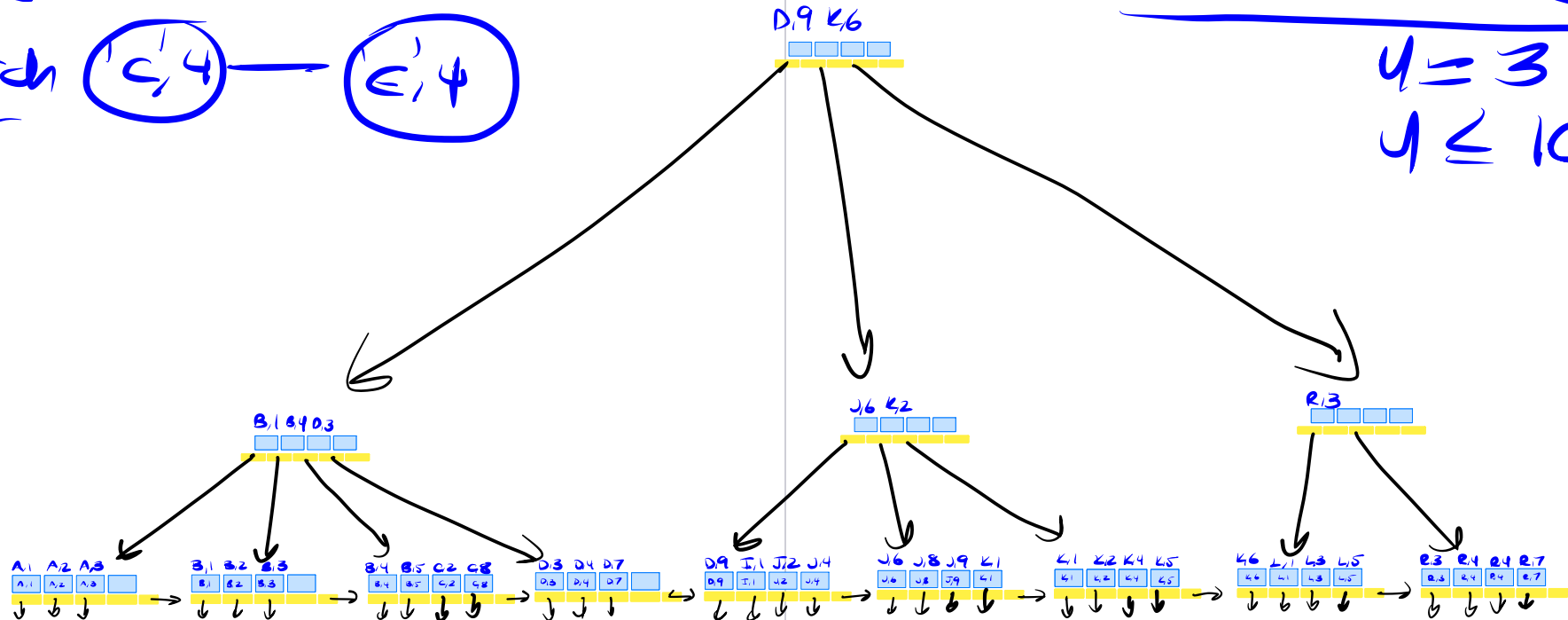
search for $(C, 3) \rightarrow (E, 8)$

$'C' \leq X \leq 'E'$ & $Y = 4$

search for $(C, 4) \rightarrow (E, 4)$

$Y = 3$

$Y \leq 10$



Index on multiple attributes