

Assignment 2

Database Management Systems

1. Consider the following relation $R(A, B, C, D, E)$ with functional dependencies:

$A \rightarrow B, C, D$

$B \rightarrow E, D$

$D \rightarrow A, C$

- a) Find out all candidate keys.
 - b) Find out the canonical cover.
 - c) Determine in which normal form the relation is.
 - d) Decompose the relation up to BCNF preserving the dependencies.
2. Draw a B+ tree for the following data,
2, 78, 56, 1, 63, 12, 14, 18, 21, 8, 26, 10, 9, 13, 22, 45, 36
order : 3
3. Solve the previous trimester final question on Hashing [2(a) and 4].