B.TECH. COMPUTER SCIENCE AND ENGINEERING – July - Dec, 2024

CSLR51 – Database Management Systems Laboratory

#Session: 08 || Date: 03/10/2024

Viva Due: Q.No. 2 (03/10/2024)
Moodle Due: 09/10/2024 at 11 PM

Develop C code to simulate the following tasks:

1. Simulate *Select* and *Project* commands using the command prompt with necessary arguments in a menu driven fashion.
   For integer attributes, choices are: *greater, greater than equal to, less than, lesser than equal to, equals*
   For string attributes, choices are: *starting with, ending with, length of the characters, equals to, substring matching*
   Input:
   Select: Filename.txt, A condition(s) to retrieve a tuple(s).
   Project: Filename.txt, A condition to retrieve a column.

   Note: You may use the code you developed in Q.No.1 in Session 2.

2. Develop an implementation package that would contribute to a normalization setup by generating the Candidate key(s) and Super key(s) in a Relation given the Functional Dependencies.
   Your code should work for any given FD's, not just for the given sample below.

   Example:
   Given R(X Y Z W) and FD = { XYZ → W, XY → ZW and X → YZW}
   Candidate key: {X}; Super keys: {X, XY, XZ, XW, XYZ, XYW, XZW, XYZW}
   Given R(X Y Z W) and FD = {X→Y, Y→Z, Z→X}
   Candidate keys: {WX, WY, WZ}; Super keys: {WXY, WXZ, WYZ, WXYZ}

---THE END---