Department of Computer Engineering
Faculty of Engineering, University of Jaffna
EC 5070 – Database Systems
Lab Sheet 04

Date: 06.06.2025 **Time: 08.00 am to 11.00 am**

Intended Learning Outcome:

After today's class you will be able to:

- ✓ Apply primary and secondary indexes and Query optimization.
- ✓ Handle large dataset

Instructions:

- Any plagiarized work will be given 0 marks.
- Submit your answers as a zip file named LAB4_20YYEXXX (20YYEXXX – Your Registration Number) on/before the given deadline via teams.
- Import and index as you see fit the attached files. Capture and submit the query time before and after indexing a given field.

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1) Create the database with your registration number and lab number

2) Create a table with the name sample population and population.

3) Import the data for these two tables from given .csv file with appropriate table names using import data wizard.

4) Import the data for population tables from given .csv file with appropriate table names using queries.

5) Explain your observations for question 3,4.

6) Do the queries below for these two tables and find the time duration.
   - Find the population and race name of female, who are in age 15 in Alameda.
   - Get the population of males in Imperial.
   - Get the full details of the population in Inyo those who in age 6 to 14.
   - Get the count of data in given table.
   - Get the distinct country name from dataset.

7) Create a primary key for these two tables and do the queries again (in question 4) and find the time duration.

8) Create the secondary index for these two tables and do the queries again (in question4) and find the time duration.

9) Explain the observation for question 4,5,6.