



**PES UNIVERSITY**  
(Established under Karnataka Act No.16 of 2013)  
100-ft Ring Road, BSK III Stage, Bangalore – 560 085  
Department of Computer Science & Engineering  
Minor DBMS Lab Session: Jan- May 2021

**Lab 1 : Part A (20 marks)**

**PROBLEM STATEMENT:**

1. Choose an online application that you are familiar with that has a large user base.  
Examples: Twitter, Snapchat, gmail, FaceBook, Minecraft, Healthcare.gov, Dropbox, Flickr, LinkedIn, Instagram, Ebay, Yelp, TripAdvisor. With reference to the site selected by you answer the following questions:
  - a. Estimate the total number of users with accounts for the application. Explain your estimation process. Cite any sources you consulted.
  - b. List what you think are the three main kinds of data for the application that are maintained on a per-user basis.
  - c. Estimate the average amount of data per user for each of the three kinds of data in Explain the basis for your estimate.
  - d. Use the answers to Questions 1 - 3 to estimate the total amount of user data managed by the application provider.
  - e. Give your suggestion on how the database can hold such a huge data?
2. Assume that you have been asked to design the Library Management System at PES University. List out the data that you would need to store with respect to books, patrons etc to create an efficient system.  
**Note:** Please analyse how a library works and then answer the above question
3. Write down the names of 5 different database management systems. Note down the following details with respect to each
  - a. market share
  - b. type of DBMS
  - c. an application that uses this DBMS

**Note:** Please do not just list the top 5 or 5 most popular DBMS.

**Part-B (20 marks)**

**INTRODUCTION TO DATABASE AND POSTGRESQL.**

- 1) Learn basic psql commands. Execute them and take screenshots and explain the function of each command.

List of commands to execute:

- Create Database, create user, drop user, drop database, check version, list databases, \s, \h, \?, \e, \q, \c, \i, \d, \l, \du, \timing.
- Refer to the attached documents to try out more commands.