Problem Statements for DBMSL

1. **For college database execute following queries:**

   Department (dept_Id ,dept_name, budget)
   Teacher(Teacher_id, name, salary, dept_id)
   Course (course_id title, credits, dept_id)
   Teaches (course_id, Teacher_id)

   - **Find the names of all teachers in Computer dept who have salary greater than 70000.**
   - **Find the names of teachers who are working in IT dept.**
   - **Create a view to find out name and salary of teacher.**
   - **Find the names of all teachers whose salary is greater than at least one teacher in Mechanical dept.**

2. **For Employee database execute following queries:**

   Department (dept_name, building, budget)
   Employee(Emp_id, name, salary, dept_name)
   Project(proj_id, title, dept_name)
   Workson (emp_id, proj_id)

   - **Create a view to find employee name and project title for employee in IT department.**
   - **Find the names of all departments whose name includes substring " p".**
   - **List the entire employee records in descending order.**
   - **Find the names of all employees whose salary is greater than at least one employee in production dept.**

3. **For University database execute following queries:**

   Department (dept_name, building, budget)
   Instructor (inst_id, name, salary, dept_name)
   Course (course_id, title, credits, dept_name)
   Teaches (course_id, inst_id)

   - **Find the average salary of the instructors who are in music dept.**
   - **Find the average salary in each dept.**
   - **Find out department name with average salary in each department where average salary is greater than 40000.**
   - **Find the names of all instructors whose salary is greater than at least one instructor in biology dept.**

4. **For banking database execute following queries:**

   Branch(branch_name, building, asset)
   Customer(cust_id, name,address)
   Account(acc_number,balance,branch_name)
   Depositor(acc_number, inst_id)
   Loan(Loan_no,amount)
   Borrower(Loan_no , cust_id)

   - **Find the number of all accounts who have branch_name as pune.**
   - **Find the names of all customer who have saving account in bank.**
   - **Create a view to find all customers who have account and loan in the bank**
   - **Show the branch name and number of account in that branch**

5. **Write a PL/SQL block to calculate the grade of minimum 10 students.**
6. **Write a PL/SQL block to calculate the average marks of students using cursor.**
7. **Write a procedure**
   - **To add new employee into employee table**
   - **Which will return number of employees working in the department. Pass the dept no.**
8. **Write a function**
   - **that accepts employee number and return the salary status as low, high, based on his salary.**
   - **which will show the level of the customer whether platinum, gold or silver.**
9. **Write a function to find**
   - **Sum of digit of the number**
   - **Reverse of the given number.**
10. **Create database and Implement trigger**
11. **For student database execute following queries:**
    - **Find the record of the students who has got the highest marks in DBMS subject using successive queries.**
    - **Find the average result of TOC subject.**
    - **Find the minimum marks in CNT subject.**
    - **Find the total number of students who scored first class.**
12. **Implement map reduce operation**

13. **Create college database (using mongodb)**
    - **Find the list of teachers in IT dept.**
    - **Find the list of teachers who have salary greater than 40000.**
    - **Find the teacher's list in descending order using teacher id.**
    - **Give the increment of rs.20000 who has salary less than 30000.**
14. **Create library database (using mongodb)**
    - **List the books of computer subjects.**
    - **List the books whose publication is "Pearson"**
    - **List the number of journals.**
    - **List the number of books which price is less than rs.500.**
15. **Implement two phase commit protocol for bank transaction.**
16. **Create Simple object and array object for Library.**
17. **Create Simple object and array object for employee.**
18. **Encode JSON object for student details using JAVA.**

    Encode JSON object for staff details using two objects using JAVA.

19. **Implement K-means clustering algorithm for one dimensional data sets using PHP/Java**
20. **Design and implement Hospital management application using PHP/java and mongodb.**
    - **Add**
    - **Delete**
    - **Search**
    - **Display**
21. **Design and implement customer registration details using PHP/java and mongodb.**
    - **Add**
    - **Delete**
    - **Search**
    - **Display**