# DBMS LAB ASSIGNMENT-1

**Instruction**

- Write a query and execute and paste screenshots and make a pdf. You need to show a screenshot to demonstrate the correctness of your query. Please keep the pdf size optimized so you can upload the whole pdf at once.
- Submit one file .pdf file containing all answers.
- The name should be <roll no> assignment<number>.pdf
- Write the questions before the answers.
- Write a justification for your solution. (simple and small)
- Complete the exercise before 5 PM and submit the pdf in moodle.

**Questions:**

1. Student(RollNo, Name, CGPA,DeptID)

Department(DeptID, DeptName, NameofHOD)

Choose a unique column as a Primary Key , Foreign Key, and  also other constraints

as per your understanding.

Create  tables for the above schema[RollNo and DeptID are unique]

2. Change the Department table as,

Department(DeptID, Deptname, NameofHOD,strength)

3. Insert student details and  department details as given below

Student

(RollNo, Name, CGPA,DeptID)

(101, 'Luffy', 7.5,2)

(102, 'Zoro', 5.8, 3)

(103, 'Nami',7.9,1)

(104, 'Robin',,6.1, 1 )

(105, 'Franky', 4.9, 5)

(106, 'Brook', 5.5, 4)

(107, 'Chopper', 7.1, 2)

(108, 'Ace', 6.88, 5)

(109, 'Danny',5.44, 5)

(110, 'Sabo',9, 4)

(111, 'Sanji', 7.45, 3)


Department(DeptID, Deptname, NameofHOD,strength)


(1, 'Computer Science','Zetsu', 300)

(2,'Data Science','Sasuke', 120)

(3,'Mechanical', 'Obito', 600)

(4, 'Electrical', 'Kakuzu', 510)

(5, 'Civil', 'Deidara', 700)

(6,'Mathematics','Itachi', 560)



4. Display all Student details


5. Display the strength of the department when DeptID is given


6. Display the Name, DeptID, CGPA of the students who secured the top 5 CGPAs in Descending order.


7. Display the name of the HOD of the Mathematics department


8. Update the CGPA of all students by 0.05


9. Find the roll numbers of students who have CGPA < 6.0 and DeptID = "3"


10. Delete the details of students who have CGPA = 0

11. Find the roll number of students who have CGPA between 4.0 to 6.0.

12. Add another column NumSubjects(NOT NULL) in the Student Table and insert the data into this column. Use appropriate keywords to ensure that the column should not contain any negative values and that all students must take a minimum of one subject.

13. Display details of students who have taken more than 3 subjects.

14. Find the DeptName where the total number of students is either less than 300 or greater than 600

15. Delete the table of Department

**Bonus Questions:**

1. Select the details of students whose names start with 'A'

2. Select the DeptID where the department name ends with 'science'

3. Find students who have secured CGPA > 9.0 and display their details in the order of their names.