

A.Y. 2023-24 | Semester - III

Lab Manual [Part-I]

2104CS303 - Database Management System - II

Sr.	Practical			
Lab-1	Create Database with Name: Student_Info			
[R-1]	Create following table under Student_Info database. (Using Design Mode)			
	Student			

Student	
Column_Name	DataType
StuID	Int
Name	Varchar (100)
EnrollmentNo	Varchar (12)
Division	Varchar (50)
Sem	Int
BirthDate	Datetime
Email	Varchar (100)
ContactNo	Varchar (50)

StuID	Name	EnrollmentNo	Division	Sem.	BirthDate	Email	ContactNo
101	Naimish Patel	090200107051	BCX-3	3	1992-12-06	naimishp49@gmail.com	8866205253
102	Firoz A. S.	090200107090	BCY-3	3	1994-05-03	Firoz.me@gmail.com	8885999922
103	Krunal Vyas	090243107101	BCZ-5	5	1984-03-01	Krunal.vyas@gmail.com	9990888877
104	Vijay Patel	090200107102	BCX-5	5	1985-02-15	Vijay.patel123@gmail.com	8787878787
105	Vimal Trivedi	090200107103	BCY-3	3	1988-01-20	Maulik123@gmail.com	8789564512

From the above given table perform the following queries:

- 1. Display Name of Student who belongs to either Semester 3 or 5. (Use IN & OR)
- 2. Find Student Name & Enrollment No in which Student Id between 103 to 105.
- 3. Find Student Name & Enrollment No with their Email Who belongs to 5th Semester.
- 4. Display All the Details of first three students.
- 5. Display Name & Enrollment no of first 30% Students who's contact number ends with 7.
- 6. Display Unique Semesters.
- 7. Retrieve All the Students who have no Enrollment.
- 8. Find All Students whose Name does not start with 'V'.
- 9. Find All Students in which Email Contains '3@G' & Only Six Characters.
- 10. Find Out All the Students whose First Name Starts with F And third character must be R.
- 11. Find All the Student Details whose Contact No contains 877.
- 12. Display Student Name in Which Student belongs to Semester 3 & Contact Number Does Not Contains 8 & 9.
- 13. Find Students who born after date 01-01-1990.
- 14. Update Division to BCX-5 & Semester 5 whose Student Id Is 102.
- 15. Change the Student's Name to Firoz Sherasiya in which Email is Firoz.Me@Gmail.Com & Contact No is 8885999922.
- 16. Add one more Column City Varchar (50) in Student Table.
- 17. Remove All BCX-3 Division Students.
- 18. Change Column Name Email to EmailAddress.
- 19. Remove All the Data from Student Table Using Truncate.
- 20. Write an SQL query to clone a new table Student_New from Student table with all data.

Prof. Hemang R. Chath Page 1 of 4

[R-2]

A.Y. 2023-24 | Semester - III

Lab Manual [Part-I]

2104CS303 - Database Management System - II

Lab-2 Create Database with Name: Employee_Info

Create following table under Employee_Info database. (Using Query)

Employee	
Column_Name	DataType
EID	Int
EName	Varchar (100)
Gender	Varchar (10)
JoiningDate	Datetime
Salary	Decimal (8,2)
City	Varchar (100)

EID	EName	Gender	JoiningDate	Salary	City
1	Nick	Male	01-JAN-13	4000	London
2	Julian	Female	01-OCT-14	3000	New York
3	Roy	Male	01-JUN-16	3500	London
4	Tom	Male	NULL	4500	London
5	Jerry	Male	01-FEB-13	2800	Sydney
6	Philip	Male	01-JAN-15	7000	New York
7	Sara	Female	01-AUG-17	4800	Sydney
8	Emily	Female	01-JAN-15	5500	New York
9	Michael	Male	NULL	6500	London
10	John	Male	01-JAN-15	8800	London

From the above given table perform the following queries:

- 1. Display all the employees whose name starts with "m" and 4th character is "h".
- 2. Find the value of 3 raised to 5. Label the column as output.
- 3. Write a guery to subtract 20 days from the current date.
- 4. Write a query to display name of employees whose name starts with "j" and contains "n" in their name.
- 5. Display 2nd to 9th character of the given string "SQL Programming".
- 6. Display name of the employees whose city name ends with "ney" &contains six characters.
- 7. Write a query to convert value 15 to string.
- 8. Add department column with varchar (20) to Employee table.
- 9. Set the value of department to Marketing who belongs to London city.
- 10. Display all the employees whose name ends with either "n" or "y".
- 11. Find smallest integer value that is greater than or equal to 63.1, 63.8 and -63.2.
- 12. Display all employees whose joining date is not available.
- 13. Display name of the employees in capital letters and city in small letters.
- 14. Change the data type of Ename from varchar (30) to char (30).
- 15. Display city wise maximum salary.
- 16. Produce output like <Ename> works at <city> and earns <salary>.
- 17. Find total number of employees whose salary is more than 5000.
- 18. Write a guery to display first 4 & last 3 characters of all the employees.
- 19. List the city having total salaries more than 15000 and employees joined after 1st January, 2014.
- 20. Write a query to replace "u" with "oo" in Ename.
- 21. Display city with average salaries and total number of employees belongs to each city.
- 22. Display total salaries paid to female employees.
- 23. Display name of the employees and their experience in years.
- 24. Remove column department from employee table.
- 25. Update the value of city from syndey to null.

Prof. Hemang R. Chath Page 2 of 4





A.Y. 2023-24 | Semester - III

Lab Manual [Part-I]

2104CS303 - Database Management System - II

- 26. Retrieve all Employee name, Salary & Joining date.
- 27. Find out combine length of Ename & Gender.
- 28. Find the difference between highest & lowest salary.
- 29. Rename a column from Ename to FirstName.
- 30. Rename a table from Employee to EmpMaster.

Lab-3 Create Database with Name: **Person_Info**

[R-3] Create following table under Person_Info database. (Using Design Mode)

Person					
Column_Name	DataType	Constraints			
PersonID	Int	Primary Key			
PersonName	Varchar (100)	Not Null			
DepartmentID	Int	Foreign Key, Null			
Salary	Decimal (8,2)	Not Null			
JoiningDate	Datetime	Not Null			
City	Varchar (100)	Not Null			

PersonID	PersonName	DepartmentID	Salary	JoiningDate	City
101	Rahul Tripathi	2	56000	01-01-2000	Rajkot
102	Hardik Pandya	3	18000	25-09-2001	Ahmedabad
103	Bhavin Kanani	4	25000	14-05-2000	Baroda
104	Bhoomi Vaishnav	1	39000	08-02-2005	Rajkot
105	Rohit Topiya	2	17000	23-07-2001	Jamnagar
106	Priya Menpara	NULL	9000	18-10-2000	Ahmedabad
107	Neha Sharma	2	34000	25-12-2002	Rajkot
108	Nayan Goswami	3	25000	01-07-2001	Rajkot
109	Mehul Bhundiya	4	13500	09-01-2005	Baroda
110	Mohit Maru	5	14000	25-05-2000	Jamnagar

Department					
Column_Name	DataType	Constraints			
DepartmentID	Int	Primary Key			
DepartmentName	Varchar (100)	Not Null, Unique			
DepartmentCode	Varchar (50)	Not Null, Unique			
Location	Varchar (50)	Not Null			

DepartmentID	DepartmentName	DepartmentCode	Location
1	Admin	Adm	A-Block
2	Computer	CE	C-Block
3	Civil	CI	G-Block
4	Electrical	EE	E-Block
5	Mechanical	ME	B-Block

From the above given table perform the following queries:

- 1. Find all persons with their department name & code.
- 2. Give department wise maximum & minimum salary with department name.
- 3. Find all departments whose total salary is exceeding 100000.
- 4. Retrieve person name, salary & department name who belongs to Jamnagar city.
- 5. Find all persons who does not belongs to any department.
- 6. Find department wise person counts.

Prof. Hemang R. Chath Page 3 of 4



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A.Y. 2023-24 | Semester - III

Lab Manual [Part-I]

2104CS303 - Database Management System – II

- 7. Find average salary of person who belongs to Ahmedabad city.
- 8. Produce Output Like: <PersonName> earns <Salary> from department <DepartmentName> monthly. (In Single Column)
- 9. List all departments who have no persons.
- 10. Find city & department wise total, average & maximum salaries.
- 11. Display Unique city names.
- 12. List out department names in which more than two persons.
- 13. Combine person name's first three characters with city name's last three characters in single column.
- 14. Give 10% increment in Computer department employee's salary.
- 15. Display all the person name's who's joining dates difference with current date is more than 365 days.

Prof. Hemang R. Chath Page 4 of 4