

KAKATIYA GOVERNMENT COLLEGE

HANAMKONDA

Workshop

on

“Hands-on Practice Using MySQL”

Organized by

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DEPARTMENT OF COMPUTER SCIENCE AND APPLICATIONS

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KAKATIYA GOVERNMENT COLLEGE, HANUMAKONDA

DEPARTMENT OF COMPUTER SCIENCE & APPLICATIONS

CIRCULAR

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Department of Computer Science & Applications is organising One Week Workshop on "*Handson Practice on MySQL* " from 10-12-2021 to 21-12-2021 for B.Com CA II Year – III Sem Students. All the Second Year students of B.Com CA are informed to take an active participation to make this activity successful.


Incharge
Dept. of Computer Science
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Hanamkonda, Warangal.


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Hanamkonda.

SYLLABUS

Meaning–SQL commands – Data Definition Language - Data Manipulation Language - Data Control Language - Transaction Control Language -Queries using Order by – Where - Group by - Nested Queries. Joins

Hands-on Practice Assignments

- I. Create a Supplier table as shown below : (for questions from 1 to 10)

Sup_No (Primary Key)	Sup_Name	Item_Supplied	Item_Price	City
S1	Suresh	Keyboard	400	Hyderabad
S2	Kiran	Processor	8000	Delhi
S3	Mohan	Mouse	350	Delhi
S4	Ramesh	Processor	9000	Bangalore
S5	Manish	Printer	6000	Mumbai
S6	Srikanth	Processor	8500	Chennai

Solution:

```
SQL> Create table Supplier(Sup_no varchar(3) primary key,Sup_Name char(15), Item_Supplied char(15), Item_Price number(6),City char(15));
```

Table Created

```
SQL> Insert into Supplier values('S1','SURESH','KEYBOARD',400,'HYDERABAD');
```

1 row inserted

```
SQL> Insert into Supplier values('S2','KIRAN','PROCESSOR',8000,'DELHI');
```

1 row inserted

```
SQL>Insert into Supplier values('S3','MOHAN','MOUSE',350,'DELHI');
```

1 row inserted

```
SQL> Insert into Supplier values('S4','RAMESH','PROCESSOR',9000,'BANGALORE');
```

1 row inserted

```
SQL> Insert into Supplier values('S5','MANISH','PRINTER',6000,'MUMBAI');
```

1 row inserted

```
SQL> Insert into Supplier values('S6','SRIKANTH','PROCESSOR',8500,'CHENNAI');
```

1 row inserted

SQL> SELECT * FROM SUPPLIER;

Sup_No (Primary Key)	Sup_Name	Item_Supplied	Item_Price	City
S1	Suresh	Keyboard	400	Hyderabad
S2	Kiran	Processor	8000	Delhi
S3	Mohan	Mouse	350	Delhi
S4	Ramesh	Processor	9000	Bangalore
S5	Manish	Printer	6000	Mumbai
S6	Srikanth	Processor	8500	Chennai

QUERIES:

1. Write sql query to display Supplier numbers and Supplier names whose name starts with 'R'?

SQL> SELECT Sup_no, Sup_name from Supplier where sup_name like 'R%';

Output

SUP_NO	SUP_NAME
S4	RAMESH

2. Write sql query to display the name of suppliers who supply Processors and whose city is Delhi.

SQL> SELECT sup_name from Supplier where item_Supplied like 'Processor' and City like 'DELHI';

Or

SQL> SELECT sup_name from Supplier where item_Supplied='Processor' and City='Delhi';

OUTPUT:

SUP_NAME
KIRAN

3. Write sql query to display the names of suppliers who supply the same items as supplied by Ramesh.

SQL> SELECT Sup_name from Supplier where item_supplied =(select item_supplied from supplier where sup_name='Ramesh');

SUP_NAME
Kiran
Ramesh
Srikanth

4. Write sql query to increase the price of Keyboard by 200.

SQL> update supplier set item_price=item_price+200 where item_supplied='keyboard';

SQL>SELECT * FROM SUPPLIER;

Sup_No (Primary Key)	Sup_Name	Item_Supplied	Item_Price	City
S1	Suresh	Keyboard	600	Hyderabad
S2	Kiran	Processor	8000	Delhi
S3	Mohan	Mouse	350	Delhi
S4	Ramesh	Processor	9000	Bangalore
S5	Manish	Printer	6000	Mumbai
S6	Srikanth	Processor	8500	Chennai

5 .Write sql query to display supplier numbers, Suplier names and itemprice for suppliers in delhi in the ascending order of itemprice.

SQL> SELECT Sup_no , Sup_Name ,Item_price from Supplier where city ='DELHI' order by item_Price;

SUP_NO	SUP_NAME	Item_Price
S3	MOHAN	350
S2	KIRAN	8000

6. Write sql query to add a new column called CONTACTNO.

SQL> Alter table Supplier add CONTACTNO NUMBER(11);

7. Write sql query to delete the record whose item price is the lowest of all the items supplied

SQL> DELETE from Supplier where Item_Price <= (select min(item_price) from Supplier);

1 row deleted

SQL> SELECT * from Supplier;

Sup_No (Primary Key)	Sup_Name	Item_Supplied	Item_Price	City
S1	Suresh	Keyboard	600	Hyderabad
S2	Kiran	Processor	8000	Delhi
S4	Ramesh	Processor	9000	Bangalore
S5	Manish	Printer	6000	Mumbai
S6	Srikanth	Processor	8500	Chennai

8 . Create a view on the table which displays only supplier numbers and supplier names.

SQL> Create view Sup_no_Name as select Sup_no,Sup_Name from Supplier;

View created

SQL> SELECT * FROM Sup_no_Name;

Sup_No	Sup_Name
S1	Suresh
S2	Kiran
S3	Mohan
S4	Ramesh
S5	Manish
S6	Srikanth

9. Write sql query to display the records in the descending order of item price for each item supplied?

SQL> SELECT item_supplied from Supplier order by Item_Price DESC;

Item_Supplied
Processor
Processor
Processor
Printer
Keyboard
Mouse

10. Write sql query to display the records of suppliers who supply items other than Processor or Keyboard.

SQL> select Sup_no,Sup_Name from Supplier where Item_Supplied not in (select Item_Supplied from supplier where item_supplied='KEYBOARD' or Item_Supplied='Processor');

output

SUP_NO	SUP_NAME
S5	Manish

II . Below are the details of Employees working for a software Company. (For questions from 11 to20) Create the table called **EmpDetails** with the below mentioned details.

Eid (Primary Key)	Ename	DOB	Designation	Salary	DOJ
E101	Suma	29-Dec-89	Designer	20000	01-Apr-10
E102	Amit	10-Jan-95	Programmer	25000	18-Feb-18
E103	Payal	15-Aug-85	Tester	35000	13-Jun-11
E104	Kiran	20-Apr-90	Programmer	40000	7-Mar-14
E105	Meenal	29-May-83	DBA	50000	9-Dec-11
E106	Sheila	1-May-70	Analyst	60000	25-Sep-18
E107	Swamy	13-Jan-85	Programmer	45000	14-Feb-16
E108	Sushma	22-Dec-76	DBA	45000	31-Jan-12

Solutions:

Create Table:

SQL> Create Table EmpDetails (Eid char(4) Primary Key, Ename Char(10),DOB date,Designation char(12),Salary number(7),DOJ date);

Table created.

Insert Rows:

SQL> insert into EmpDetails values('E101','Suma','29-Dec-89', 'Designer', '20000' , '01-Apr-10');

1 row created.

SQL> insert into EmpDetails values('E102','Amit','10-Jan-5', 'Programmer', '25000', '18-Feb-18');

1 row created.

SQL> insert into EmpDetails values('E103','Payal','15-Aug-85','Tester','35000','13-Jun-11');

1 row created.

SQL> insert into EmpDetails values('E104','Kiran','20-Apr-90','Programmer','40000','07-Mar-14');

1 row created.

SQL> insert into EmpDetails values('E105','Meenal','29-May-83','DBA','50000','09-Dec-11');

1 row created.

SQL> insert into EmpDetails values('E106','Sheila','01-May-70','Analyst','60000','25-Sep-18');

1 row created.

SQL> insert into EmpDetails values('E107','Swamy','13-Jan-85', 'Programmer', '45000', '14-Feb-16');

1 row created.

SQL> insert into EmpDetails values('E108','Sushma','22-Dec-76','DBA','45000','31-Jan-12');

1 row created.

SQL> Select * From EmpDetails;

Eid (Primary Key)	Ename	DOB	Designation	Salary	DOJ
E101	Suma	29-Dec-89	Designer	20000	01-Apr-10
E102	Amit	10-Jan-95	Programmer	25000	18-Feb-18
E103	Payal	15-Aug-85	Tester	35000	13-Jun-11
E104	Kiran	20-Apr-90	Programmer	40000	7-Mar-14
E105	Meenal	29-May-83	DBA	50000	9-Dec-11
E106	Sheila	1-May-70	Analyst	60000	25-Sep-18
E107	Swamy	13-Jan-85	Programmer	45000	14-Feb-16
E108	Sushma	22-Dec-76	DBA	45000	31-Jan-12

Queries:

11. Write sql query to display all the employees whose designation is Programmer.

SQL> select * from EmpDetails where Designation='Programmer';

Eid	Ename	DOB	Designation	Salary	DOJ
E102	Amit	10-Jan-95	Programmer	25000	18-Feb-18
E104	Kiran	20-Apr-90	Programmer	40000	7-Mar-14
E107	Swamy	13-Jan-85	Programmer	45000	14-Feb-16

12. Write sql query to display employees who have joined after 2014.

SQL> select * from empdetails where DOJ>'31-Dec-2014';

Eid	Ename	DOB	Designation	Salary	DOJ
E102	Amit	10-Jan-95	Programmer	25000	18-Feb-18
E106	Sheila	1-May-70	Analyst	60000	25-Sep-18
E107	Swamy	13-Jan-85	Programmer	45000	14-Feb-16

13. Write sql query to display all the employees whose name ends with 'a'.

SQL> select * from Empdetails where ENAME like '%a';

Eid	Ename	DOB	Designation	Salary	DOJ
E101	Suma	29-Dec-89	Designer	20000	01-Apr-10
E106	Sheila	1-May-70	Analyst	60000	25-Sep-18
E108	Sushma	22-Dec-76	DBA	45000	31-Jan-12

14. Write sql query to display the total salary of all the employees whose designation is programmer.

SQL> select sum(salary) from empdetails where Designation = 'Programmer';

Sum(Salary)
110000

15. Write sql query to display all the employee names in upper case.

SQL> select eid, Upper(ename) as ENAME from empdetails;

EID	ENAME
E101	SUMA
E102	AMIT
E103	PAYAL
E104	KIRAN
E105	MEENAL
E106	SHEILA
E107	SWAMY
E108	SUSHMA

16. Write sql query to display the details of the employee with highest experience.

SQL> alter table empdetails add (experience number(3));

SQL> update empdetails set experience=extract(year from sysdate)-extract(year from DOJ);

8 rows updated.

SQL> SELECT * FROM EMPDETAILS;

Eid	Ename	DOB	Designation	Salary	DOJ	EXPERIANCE
E101	Suma	29-Dec-89	Designer	20000	01-Apr-10	12
E102	Amit	10-Jan-95	Programmer	25000	18-Feb-18	4
E103	Payal	15-Aug-85	Tester	35000	13-Jun-11	11
E104	Kiran	20-Apr-90	Programmer	40000	7-Mar-14	8
E105	Meenal	29-May-83	DBA	50000	9-Dec-11	11
E106	Sheila	1-May-70	Analyst	60000	25-Sep-18	4
E107	Swamy	13-Jan-85	Programmer	45000	14-Feb-16	6
E108	Sushma	22-Dec-76	DBA	45000	31-Jan-12	10

SQL> select *from empDETAILS where experience>=(select max(experience) from empDETAILS);

Eid	Ename	DOB	Designation	Salary	DOJ	EXPERIANCE
E101	Suma	29-Dec-89	Designer	20000	01-Apr-10	12

17. Write sql query to display the details of the employees whose name contains 'ee'.

SQL> select * from Empdetails where ENAME like '%ee%';

Eid	Ename	DOB	Designation	Salary	DOJ
E105	Meenal	29-May-83	DBA	50000	9-Dec-11

18. Write sql query to increase the salaries of employees by 5000 whose designation is DBA.

SQL> update empdetails set salary=salary+5000 where designation='DBA';

2 rows updated.

SQL> select * from empdetails;

Eid	Ename	DOB	Designation	Salary	DOJ
E105	Meenal	29-May-83	DBA	55000	9-Dec-11
E108	Sushma	22-Dec-76	DBA	50000	31-Jan-12

19. Write sql query to display the employees whose salary is more than the average salary of all the employees

SQL> select * from empdetails where salary > (Select avg(salary) from empdetails);

Eid	Ename	DOB	Designation	Salary	DOJ
E105	Meenal	29-May-83	DBA	55000	9-Dec-11
E106	Sheila	1-May-70	Analyst	60000	25-Sep-18
E107	Swamy	13-Jan-85	Programmer	45000	14-Feb-16
E108	Sushma	22-Dec-76	DBA	50000	31-Jan-12

Prepare Sample Data To Practice SQL Skill.

Table – Worker

WORKER_ID	FIRST_NAME	LAST_NAME	SALARY	JOINING_DATE	DEPARTMENT
001	Monika	Arora	100000	2014-02-20	HR
002	Niharika	Verma	80000	2014-06-11	Admin
003	Vishal	Singhal	300000	2014-02-20	HR
004	Amitabh	Singh	500000	2014-02-20	Admin
005	Vivek	Bhati	500000	2014-06-11	Admin
006	Vipul	Diwan	200000	2014-06-11	Account
007	Satish	Kumar	75000	2014-01-20	Account
008	Geetika	Chauhan	90000	2014-04-11	Admin

WORKER_REF_ID	BONUS_DATE	BONUS_AMOUNT
1	2016-02-20	5000
2	2016-06-11	3000
3	2016-02-20	4000
1	2016-02-20	4500
2	2016-06-11	3500

Table – Title

WORKER_REF_ID	WORKER_TITLE	AFFECTED_FROM
1	Manager	2016-02-20 00:00:00
2	Executive	2016-06-11 00:00:00
8	Executive	2016-06-11 00:00:00
5	Manager	2016-06-11 00:00:00
4	Asst. Manager	2016-06-11 00:00:00
7	Executive	2016-06-11 00:00:00
6	Lead	2016-06-11 00:00:00
3	Lead	2016-06-11 00:00:00

To prepare the sample data, you can run the following queries in your database query executor or on the SQL command line.

SQL Script to Seed Sample Data.

```
CREATE TABLE Worker (  
    WORKER_ID INT NOT NULL PRIMARY KEY AUTO_INCREMENT,  
    FIRST_NAME CHAR(25),  
    LAST_NAME CHAR(25),  
    SALARY INT(15),  
    JOINING_DATE DATETIME,  
    DEPARTMENT CHAR(25)  
);  
INSERT INTO Worker  
    (WORKER_ID, FIRST_NAME, LAST_NAME, SALARY, JOINING_DATE, DEPARTMENT)  
VALUES  
    (001, 'Monika', 'Arora', 100000, '14-02-20 09.00.00', 'HR'),  
    (002, 'Niharika', 'Verma', 80000, '14-06-11 09.00.00', 'Admin'),  
    (003, 'Vishal', 'Singhal', 300000, '14-02-20 09.00.00', 'HR'),  
    (004, 'Amitabh', 'Singh', 500000, '14-02-20 09.00.00', 'Admin'),  
    (005, 'Vivek', 'Bhati', 500000, '14-06-11 09.00.00', 'Admin'),  
    (006, 'Vipul', 'Diwan', 200000, '14-06-11 09.00.00', 'Account'),
```



```
(007, 'Satish', 'Kumar', 75000, '14-01-20 09.00.00', 'Account'),  
(008, 'Geetika', 'Chauhan', 90000, '14-04-11 09.00.00', 'Admin');
```

```
CREATE TABLE Bonus (  
    WORKER_REF_ID INT,  
    BONUS_AMOUNT INT(10),  
    BONUS_DATE DATETIME,  
    FOREIGN KEY (WORKER_REF_ID)  
        REFERENCES Worker(WORKER_ID)  
    ON DELETE CASCADE
```

```
);
```

```
INSERT INTO Bonus
```

```
(WORKER_REF_ID, BONUS_AMOUNT, BONUS_DATE) VALUES  
(001, 5000, '16-02-20'),  
(002, 3000, '16-06-11'),  
(003, 4000, '16-02-20'),  
(001, 4500, '16-02-20'),  
(002, 3500, '16-06-11');
```

```
CREATE TABLE Title (  
    WORKER_REF_ID INT,  
    WORKER_TITLE CHAR(25),  
    AFFECTED_FROM DATETIME,  
    FOREIGN KEY (WORKER_REF_ID)  
        REFERENCES Worker(WORKER_ID)  
    ON DELETE CASCADE
```

```
);
```

```
INSERT INTO Title
```

```
(WORKER_REF_ID, WORKER_TITLE, AFFECTED_FROM) VALUES  
(001, 'Manager', '2016-02-20 00:00:00'),  
(002, 'Executive', '2016-06-11 00:00:00'),  
(008, 'Executive', '2016-06-11 00:00:00'),  
(005, 'Manager', '2016-06-11 00:00:00'),  
(004, 'Asst. Manager', '2016-06-11 00:00:00'),  
(007, 'Executive', '2016-06-11 00:00:00'),
```

```
(006, 'Lead', '2016-06-11 00:00:00'),  
(003, 'Lead', '2016-06-11 00:00:00');
```

Once above SQL would run, you'll see a result similar to the one attached below.

Creating Sample Data to Practice SQL Skill.

50 SQL Query Questions and Answers for Practice.

Q-1. Write an SQL query to fetch "FIRST_NAME" from Worker table using the alias name as <WORKER_NAME>.

Ans.

```
Select FIRST_NAME AS WORKER_NAME from Worker;
```

Q-2. Write an SQL query to fetch "FIRST_NAME" from Worker table in upper case.

Ans.

```
Select upper(FIRST_NAME) from Worker;
```

Q-3. Write an SQL query to fetch unique values of DEPARTMENT from Worker table.

Ans.

```
Select distinct DEPARTMENT from Worker;
```

Q-4. Write an SQL query to print the first three characters of FIRST_NAME from Worker table.

Ans.

```
Select substring(FIRST_NAME,1,3) from Worker;
```

Q-5. Write an SQL query to find the position of the alphabet ('a') in the first name column 'Amitabh' from Worker table.

Ans.

```
Select INSTR(FIRST_NAME, BINARY'a') from Worker where FIRST_NAME = 'Amitabh';
```

Q-6. Write an SQL query to print the FIRST_NAME from Worker table after removing white spaces from the right side.

Ans.

Select RTRIM(FIRST_NAME) from Worker;

Q-7. Write an SQL query to print the DEPARTMENT from Worker table after removing white spaces from the left side.

Ans.

Select LTRIM(DEPARTMENT) from Worker;

Q-8. Write an SQL query that fetches the unique values of DEPARTMENT from Worker table and prints its length.

Ans.

Select distinct length(DEPARTMENT) from Worker;

Q-9. Write an SQL query to print the FIRST_NAME from Worker table after replacing 'a' with 'A'.

Ans.

Select REPLACE(FIRST_NAME,'a','A') from Worker;

Q-10. Write an SQL query to print the FIRST_NAME and LAST_NAME from Worker table into a single column COMPLETE_NAME. A space char should separate them.

Ans.

Select CONCAT(FIRST_NAME, ' ', LAST_NAME) AS 'COMPLETE_NAME' from Worker;

Q-11. Write an SQL query to print all Worker details from the Worker table order by FIRST_NAME Ascending.

Ans.

Select * from Worker order by FIRST_NAME asc;

Q-12. Write an SQL query to print all Worker details from the Worker table order by FIRST_NAME Ascending and DEPARTMENT Descending.

Ans. Select * from Worker order by FIRST_NAME asc,DEPARTMENT desc;

Q-13. Write an SQL query to print details for Workers with the first name as “Vipul” and “Satish” from Worker table.

Ans. Select * from Worker where FIRST_NAME in ('Vipul','Satish');

Q-14. Write an SQL query to print details of workers excluding first names, “Vipul” and “Satish” from Worker table.

Ans. Select * from Worker where FIRST_NAME not in ('Vipul','Satish');

Q-15. Write an SQL query to print details of Workers with DEPARTMENT name as “Admin”.

Ans. Select * from Worker where DEPARTMENT like 'Admin%';

Q-16. Write an SQL query to print details of the Workers whose FIRST_NAME contains ‘a’.

Ans. Select * from Worker where FIRST_NAME like '%a%';

Q-17. Write an SQL query to print details of the Workers whose FIRST_NAME ends with ‘a’.

Ans. Select * from Worker where FIRST_NAME like '%a';

Q-18. Write an SQL query to print details of the Workers whose FIRST_NAME ends with ‘h’ and contains six alphabets.

Ans. Select * from Worker where FIRST_NAME like '_____h';

Q-19. Write an SQL query to print details of the Workers whose SALARY lies between 100000 and 500000.

Ans. Select * from Worker where SALARY between 100000 and 500000;

Q-20. Write an SQL query to print details of the Workers who have joined in Feb’2014.

Ans. Select * from Worker where year(JOINING_DATE) = 2014 and month(JOINING_DATE) = 2;

Q-21. Write an SQL query to fetch the count of employees working in the department ‘Admin’.

Ans. SELECT COUNT(*) FROM worker WHERE DEPARTMENT = 'Admin';

Q-22. Write an SQL query to fetch worker names with salaries >= 50000 and <= 100000.

Ans. SELECT CONCAT(FIRST_NAME, ' ', LAST_NAME) As Worker_Name, Salary

FROM worker
WHERE WORKER_ID IN
(SELECT WORKER_ID FROM worker
WHERE Salary BETWEEN 50000 AND 100000);

Q-23. Write an SQL query to fetch the no. of workers for each department in the descending order.

Ans. SELECT DEPARTMENT, count(WORKER_ID) No_Of_Workers

```
FROM worker
GROUP BY DEPARTMENT
ORDER BY No_Of_Workers DESC;
```

Q-24. Write an SQL query to print details of the Workers who are also Managers.

Ans.

```
SELECT DISTINCT W.FIRST_NAME, T.WORKER_TITLE
FROM Worker W
INNER JOIN Title T
ON W.WORKER_ID = T.WORKER_REF_ID
AND T.WORKER_TITLE in ('Manager');
```

Q-25. Write an SQL query to fetch duplicate records having matching data in some fields of a table.

Ans.

```
SELECT WORKER_TITLE, AFFECTED_FROM, COUNT(*)
FROM Title
GROUP BY WORKER_TITLE, AFFECTED_FROM
HAVING COUNT(*) > 1;
```

Q-26. Write an SQL query to show only odd rows from a table.

Ans. SELECT * FROM Worker WHERE MOD (WORKER_ID, 2) <> 0;

Q-27. Write an SQL query to show only even rows from a table.

Ans. SELECT * FROM Worker WHERE MOD (WORKER_ID, 2) = 0;

Q-28. Write an SQL query to clone a new table from another table.

Ans. SELECT * INTO WorkerClone FROM Worker;

The general way to clone a table without information is:

```
SELECT * INTO WorkerClone FROM Worker WHERE 1 = 0;
```

An alternate way to clone a table (for MySQL) without is:

```
CREATE TABLE WorkerClone LIKE Worker;
```

Q-29. Write an SQL query to fetch intersecting records of two tables.

Ans. (SELECT * FROM Worker) INTERSECT (SELECT * FROM WorkerClone);

Q-30. Write an SQL query to show records from one table that another table does not have.

Ans. SELECT * FROM Worker MINUS SELECT * FROM Title;

Q-31. Write an SQL query to show the current date and time.

Ans. Following MySQL query returns the current date:

```
SELECT CURDATE();
```

Following MySQL query returns the current date and time:

```
SELECT NOW();
```

Following SQL Server query returns the current date and time:

```
SELECT getdate();
```

Following Oracle query returns the current date and time:

```
SELECT SYSDATE FROM DUAL;
```

Q-32. Write an SQL query to show the top n (say 10) records of a table.

Ans. SELECT * FROM Worker ORDER BY Salary DESC LIMIT 10;

Following SQL Server query will return the top n records using the TOP command:

```
SELECT TOP 10 * FROM Worker ORDER BY Salary DESC;
```

Following Oracle query will return the top n records with the help of ROWNUM:

```
SELECT * FROM (SELECT * FROM Worker ORDER BY Salary DESC)
WHERE ROWNUM <= 10;
```

Q-33. Write an SQL query to determine the nth (say n=5) highest salary from a table.

Ans. The following MySQL query returns the nth highest salary:

```
SELECT Salary FROM Worker ORDER BY Salary DESC LIMIT n-1,1;
```

The following SQL Server query returns the nth highest salary:

```
SELECT TOP 1 Salary
FROM (
  SELECT DISTINCT TOP n Salary
  FROM Worker
  ORDER BY Salary DESC
)
ORDER BY Salary ASC;
```

Q-34. Write an SQL query to determine the 5th highest salary without using TOP or limit method.

Ans. The following query is using the correlated subquery to return the 5th highest salary:

```
SELECT Salary
FROM Worker W1
WHERE 4 = (
  SELECT COUNT( DISTINCT ( W2.Salary ) )
  FROM Worker W2
  WHERE W2.Salary >= W1.Salary
);
```

Use the following generic method to find nth highest salary without using TOP or limit.

```
SELECT Salary
FROM Worker W1
WHERE n-1 = (
  SELECT COUNT( DISTINCT ( W2.Salary ) )
  FROM Worker W2
  WHERE W2.Salary >= W1.Salary
);
```

Q-35. Write an SQL query to fetch the list of employees with the same salary.

Ans.

```
Select distinct W.WORKER_ID, W.FIRST_NAME, W.Salary
from Worker W, Worker W1
where W.Salary = W1.Salary
and W.WORKER_ID != W1.WORKER_ID;
```

Q-36. Write an SQL query to show the second highest salary from a table.

Ans. Select max(Salary) from Worker

where Salary not in (Select max(Salary) from Worker);

Q-37. Write an SQL query to show one row twice in results from a table.

Ans.

```
select FIRST_NAME, DEPARTMENT from worker W where W.DEPARTMENT='HR' union all
select FIRST_NAME, DEPARTMENT from Worker W1 where W1.DEPARTMENT='HR';
```

Q-38. Write an SQL query to fetch intersecting records of two tables.

Ans.

```
(SELECT * FROM Worker)
INTERSECT
(SELECT * FROM WorkerClone);
```

Q-39. Write an SQL query to fetch the first 50% records from a table.

Ans.

```
SELECT *
FROM WORKER
WHERE WORKER_ID <= (SELECT count(WORKER_ID)/2 from Worker);
```

Q-40. Write an SQL query to fetch the departments that have less than five people in it.

Ans.

SELECT DEPARTMENT, COUNT(WORKER_ID) as 'Number of Workers' FROM Worker GROUP BY DEPARTMENT HAVING COUNT(WORKER_ID) < 5;

Q-41. Write an SQL query to show all departments along with the number of people in there.

Ans.

SELECT DEPARTMENT, COUNT(DEPARTMENT) as 'Number of Workers' FROM Worker GROUP BY DEPARTMENT;

Q-42. Write an SQL query to show the last record from a table.

Ans.

The following query will return the last record from the Worker table:

Select * from Worker where WORKER_ID = (SELECT max(WORKER_ID) from Worker);

Q-43. Write an SQL query to fetch the first row of a table.

Ans.

Select * from Worker where WORKER_ID = (SELECT min(WORKER_ID) from Worker);

Q-44. Write an SQL query to fetch the last five records from a table.

Ans.

SELECT * FROM Worker WHERE WORKER_ID <=5

UNION

SELECT * FROM (SELECT * FROM Worker W order by W.WORKER_ID DESC) AS W1 WHERE W1.WORKER_ID <=5;

Q-45. Write an SQL query to print the name of employees having the highest salary in each department.

Ans.

SELECT t.DEPARTMENT,t.FIRST_NAME,t.Salary from(SELECT max(Salary) as TotalSalary,DEPARTMENT from Worker group by DEPARTMENT) as TempNew Inner Join Worker t on TempNew.DEPARTMENT=t.DEPARTMENT and TempNew.TotalSalary=t.Salary;

Q-46. Write an SQL query to fetch three max salaries from a table.

Ans.

```
SELECT distinct Salary from worker a WHERE 3 >= (SELECT count(distinct Salary) from worker b
WHERE a.Salary <= b.Salary) order by a.Salary desc;
```

Q-47. Write an SQL query to fetch three min salaries from a table.

Ans.

```
SELECT distinct Salary from worker a WHERE 3 >= (SELECT count(distinct Salary) from worker b
WHERE a.Salary >= b.Salary) order by a.Salary desc;
```

Q-48. Write an SQL query to fetch nth max salaries from a table.

Ans.

```
SELECT distinct Salary from worker a WHERE n >= (SELECT count(distinct Salary) from worker b
WHERE a.Salary <= b.Salary) order by a.Salary desc;
```

Q-49. Write an SQL query to fetch departments along with the total salaries paid for each of them.

Ans.

```
SELECT DEPARTMENT, sum(Salary) from worker group by DEPARTMENT;
```

Q-50. Write an SQL query to fetch the names of workers who earn the highest salary.

Ans. SELECT FIRST_NAME, SALARY from Worker WHERE SALARY=(SELECT max(SALARY) from Worker);

This Assignment Will Given You Hands-On Practice In Working With DDL, DML And Constraints Using MySQL Workbench.

For This Assignment You Will Be Using MySQL Workbench Tool.

INSTRUCTIONS TO CANDIDATES

ANSWER ALL QUESTIONS

This Assignment Will Give You Hands-On Practice In Working With DDL, DML And Constraints Using MySQL Workbench.

For This Assignment You Will Be Using MySQL Workbench Tool. Grade Points Will Be Given To Correct Answers As Well As Clean And Clear Coding, E.G. Formatting, Indentation, Consistent Upper/Lower Cases, Etc., Where Applicable.

Questions:

- You Must Submit Your SQL Scripts For Each Questions. All Questions Are Equally Weighted.
- It Is Best Practice To Check Your Create And Insert Statements With Describe And Select Statements, Where

1. Create Database Schema Called ClassAssignment Use ClassAssignment Database For Rest Of The Exercise.

2. Create A Table Called Project With The Following Columns:

Project_num INT(10) NOT NULL PRIMARY KEY Project_code CHAR(4)

Project_title VARCHAR(45) First_name VARCHAR(45) Last_name VARCHAR(45),

Project_budget DECIMAL(5,2)

3. Modify Project_num To Auto_increment And Also Auto_increment Starts From 10.

4. Modify Project_budget Datatype From Decimal (5, 2) To (10, 2).

5. Insert Following Values Into The Project DO NOT Insert Project_num. Auto_increment Should Start From 10

Project_code	Project_title	First_name	Last_name	Project_budget
PC01	DIA	John	Smith	10000.99
PC02	CHF	Tim	Cook	12000.50
PC03	AST	Rhonda	Smith	8000.40

6. Create A Table PayRoll With The Following Info:

Employee_num INT(10) PRIMARY KEY AUTO_INCREMENT Job_id INT(10) NOT NULL
job_desc VARCHAR(40) Emp_pay DECIMAL (10,2)

7. Alter PayRoll Table With The Following, Make Sure To Write Each Scripts Separately

1. Add Constraint On Emp_pay So That Only Value Greater Than 10,000 Can Beinserted

2. Add Constraint On Job_desc So That Default Value Set To 'Data Analyst'.

3. Add Column Pay_date (DATE) After Job_desc

8. Add Foreign Key Constraint In PayRoll Table With Job_id Column Referencing To Project_num Column In Project

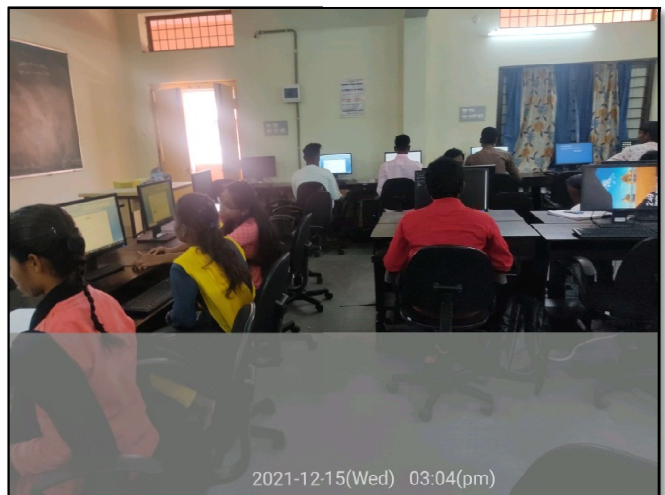
9. Insert Following Values Into PayRoll Table. DO NOT Insert Employee_num And Job_desc, Those Should Be Auto Populated Using Auto_increment And Default Values,

Job_id	Pay_date	Emp_pay
10	Current Date	12000.99
11	Current Date	14000.99
12	Current Date	16000.99

10. Update Emp_pay In PayRoll Table For Employee_num = 2 With 10% Emp_pay Increase I.E. (Emp_pay * 0.10).
11. Create Project_backup Table From Project Table You Created Above Using Bulk Insert Statement Only For Last_name 'Smith'.
12. Create VIEW As PayRoll_View From PayRoll Table You Created Above. However, Your VIEW Should Only Contain Job_id, Job_desc And Pay_date For Job_id > 10.
13. Create Index For Pay_date On PayRoll Table.
14. Delete All Data From Project_backup Table But Keep The Table Structure
15. Write A DELETE Script To Delete A Row From Project Table Where Project_num = If There Is An Error, Give A Short Explanation Of What/Why About Error Msg?
16. Solve The Question 15 Above Without Error, I.E. Write A Script How You Can Delete

Work shop on Hands-on Practice on MySQL

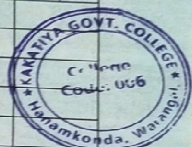
PHOTOS



47	006202051	BARIGELA SRINATH	Arj	Arj	Arj	Arj	Arj	Arj	Arj	Arj	Arj	Arj
48	006202052	BASHAVENI PAVAN KALYAN	Suj	Suj	Suj	Suj	Suj	Suj	Suj	Suj	Suj	Suj
49	006202054	BEMBEERU ARUN	ARUN	ARUN	ARUN	ARUN	ARUN	ARUN	ARUN	ARUN	ARUN	ARUN
50	006202055	BHUKYA MURALI	murali	murali	murali	murali	murali	murali	murali	murali	murali	murali
51	006202056	BHUKYA SANTHOSH	Santosh	Santosh	Santosh	Santosh	Santosh	Santosh	Santosh	Santosh	Santosh	Santosh
52	006202057	BHUKYA SURESH	Suresh	Suresh	Suresh	Suresh	Suresh	Suresh	Suresh	Suresh	Suresh	Suresh
53	006202058	BHUMA SAITEJA	Saiteja	Saiteja	Saiteja	Saiteja	Saiteja	Saiteja	Saiteja	Saiteja	Saiteja	Saiteja
54	006202059	BIJILI SANDHYA	Sai	Sai	Sai	Sai	Sai	Sai	Sai	Sai	Sai	Sai
55	006202060	BILLAM NARESH	NARESH	NARESH	NARESH	NARESH	NARESH	NARESH	NARESH	NARESH	NARESH	NARESH
56	006202061	BODA NARENDER	NARENDER	NARENDER	NARENDER	NARENDER	NARENDER	NARENDER	NARENDER	NARENDER	NARENDER	NARENDER
57	006202062	BODA SWARNA	NARENDER	NARENDER	NARENDER	NARENDER	NARENDER	NARENDER	NARENDER	NARENDER	NARENDER	NARENDER
58	006202064	BOGAM KARTHEEK	swarna	swarna	swarna	swarna	swarna	swarna	swarna	swarna	swarna	swarna
59	006202065	BOGGULA ARAVIND	Aravind	Aravind	Aravind	Aravind	Aravind	Aravind	Aravind	Aravind	Aravind	Aravind
60	006202066	BOGI HARIKRISHNA	Aravind	Aravind	Aravind	Aravind	Aravind	Aravind	Aravind	Aravind	Aravind	Aravind
61	006202067	BOINAPALLY NAGARAJU	HARI	HARI	HARI	HARI	HARI	HARI	HARI	HARI	HARI	HARI
62	006202068	BOLAVENA ALEKHYA	Arj	Arj	Arj	Arj	Arj	Arj	Arj	Arj	Arj	Arj
63	006202069	BOLLA SANJAY	Sanjay	Sanjay	Sanjay	Sanjay	Sanjay	Sanjay	Sanjay	Sanjay	Sanjay	Sanjay
64	006202070	BOLLABOINA VINAY	Sanjay	Sanjay	Sanjay	Sanjay	Sanjay	Sanjay	Sanjay	Sanjay	Sanjay	Sanjay
65	006202071	BOLLARAPU CHARAN	Charan	Charan	Charan	Charan	Charan	Charan	Charan	Charan	Charan	Charan
66	006202072	BOLLUMALLA ANIL	ANIL	ANIL	ANIL	ANIL	ANIL	ANIL	ANIL	ANIL	ANIL	ANIL
67	006202073	BOMMAGANI PRASHANTH	Prashanth	Prashanth	Prashanth	Prashanth	Prashanth	Prashanth	Prashanth	Prashanth	Prashanth	Prashanth
68	006202074	BOMMAKANTI UDAY KIRAN	Kiran	Kiran	Kiran	Kiran	Kiran	Kiran	Kiran	Kiran	Kiran	Kiran
69	006202075	BONALA MAHESH	Mahesh	Mahesh	Mahesh	Mahesh	Mahesh	Mahesh	Mahesh	Mahesh	Mahesh	Mahesh
70	006202076	BONDUGULA POOJITHA	Poojitha	Poojitha	Poojitha	Poojitha	Poojitha	Poojitha	Poojitha	Poojitha	Poojitha	Poojitha
71	006202077	BOORLA NISHANTH	Nishanth	Nishanth	Nishanth	Nishanth	Nishanth	Nishanth	Nishanth	Nishanth	Nishanth	Nishanth



72	006202078	BOSU AJAY KUMAR	Arj	Arj	Arj	Arj	Arj	Arj	Arj	Arj	Arj	Arj
73	006202079	BOUTHU BHAVANI	Bhavani	Bhavani	Bhavani	Bhavani	Bhavani	Bhavani	Bhavani	Bhavani	Bhavani	Bhavani
74	006202080	BUIJUGUNDLA SHESHU	Seshu	Seshu	Seshu	Seshu	Seshu	Seshu	Seshu	Seshu	Seshu	Seshu
75	006202081	BULLE AJAY	Sun	Sun	Sun	Sun	Sun	Sun	Sun	Sun	Sun	Sun
76	006202082	CHAKINALA SARITHA										
77	006202083	CHARAGONDLA PRAVALIKA	Pravalika	Pravalika	Pravalika	Pravalika	Pravalika	Pravalika	Pravalika	Pravalika	Pravalika	Pravalika
78	006202084	CHEEPATHI PREM	PREM	PREM	PREM	PREM	PREM	PREM	PREM	PREM	PREM	PREM
79	006202085	CHENELLI NAGAMANI										
80	006202086	CHENNA NARSIMHA										
81	006202087	CHENNURI RAJU										
82	006202088	CHERUKU VIJAY KUMAR	vijay	vijay	vijay	vijay	vijay	vijay	vijay	vijay	vijay	vijay
83	006202089	CHIKKUDU DILEEP										
84	006202090	CHILAGANI SRIKAR	Srikar	Srikar	Srikar	Srikar	Srikar	Srikar	Srikar	Srikar	Srikar	Srikar
85	006202091	CHILUKA SUJEETH	Sujeeth	Sujeeth	Sujeeth	Sujeeth	Sujeeth	Sujeeth	Sujeeth	Sujeeth	Sujeeth	Sujeeth
86	006202092	CHINTHALA RANJITH	Ranjith	Ranjith	Ranjith	Ranjith	Ranjith	Ranjith	Ranjith	Ranjith	Ranjith	Ranjith
87	006202093	CHINTHAPATLA MAMATHA										
88	006202094	CHIPPA SAIKOUSHIK	Saikoushik	Saikoushik	Saikoushik	Saikoushik	Saikoushik	Saikoushik	Saikoushik	Saikoushik	Saikoushik	Saikoushik
89	006202095	CHIRRA VAMSHI										
90	006202096	DAMERA DIVYA	Divya	Divya	Divya	Divya	Divya	Divya	Divya	Divya	Divya	Divya
91	006202097	DAMERA THARUN	Tharun	Tharun	Tharun	Tharun	Tharun	Tharun	Tharun	Tharun	Tharun	Tharun
92	006202098	DANDIGA DEVENDER										
93	006202099	DANDIKOLA DINESH	Dinesh	Dinesh	Dinesh	Dinesh	Dinesh	Dinesh	Dinesh	Dinesh	Dinesh	Dinesh
94	006202100	DATLA LAXMAN	Laxman	Laxman	Laxman	Laxman	Laxman	Laxman	Laxman	Laxman	Laxman	Laxman
95	006202120	Eeredly shavath	Shavath	Shavath	Shavath	Shavath	Shavath	Shavath	Shavath	Shavath	Shavath	Shavath



Incharge
Dept. of Computer Science
Kakatiya Government College
Hanamkonda, Warangal.

FEED BACK

KAKATIYA GOVERNMENT COLLEGE
HANAMKONDA, DIST. WARANGAL (Urban)
Internal Quality Assurance Cell (IQAC)

FEEDBACK FORM

Work shop Title: Handson practice on MySQL

Date: 21/12/2021

Please fill the short questionnaire to make the Work shop better.

1) Were objectives of the Work shop clear to you?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2) The Work shop contents met with your expectations 1. Strongly disagree 2. Average 3. Good 4. Strongly agree	<input type="checkbox"/>	<input type="checkbox"/>
3) The lecture sequence was well planned 1. Strongly disagree 2. Average 3. Good 4. Strongly agree	<input type="checkbox"/>	<input type="checkbox"/>
4) The contents were illustrated properly 1. Strongly disagree 2. Average 3. Good 4. Strongly agree	<input type="checkbox"/>	<input type="checkbox"/>
5) The Work shop exposed you to new knowledge and practices 1. Strongly disagree 2. Average 3. Good 4. Strongly agree	<input type="checkbox"/>	<input type="checkbox"/>
6) The Work shop material handed over to you was adequate 1. Strongly disagree 2. Average 3. Good 4. Strongly agree	<input type="checkbox"/>	<input type="checkbox"/>

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 1. Strongly disagree 2. Average 3. Good 4. Strongly agree 4
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 1. Strongly disagree 2. Average 3. Good 4. Strongly agree 3
- 4) The contents were illustrated properly
 1. Strongly disagree 2. Average 3. Good 4. Strongly agree 2
- 5) The Work shop exposed you to new knowledge and practices
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- 6) The Work shop material handed over to you was adequate
 1. Strongly disagree 2. Average 3. Good 4. Strongly agree 2


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 1. Strongly disagree 2. Average 3. Good 4. Strongly agree 3