LAB8(Bhagyasri)

Creation of Database Employee:

create database Employee;

Query OK, 1 row affected (0.02 sec)

mysql> use Employee;

Database changed

mysql> create table EmployeeInfo(Emp_id int primary key,

-> Emp_name varchar(10),Department varchar(10),project char(5),Address varchar(20),DOB date,gender char(2));

Query OK, 0 rows affected (0.10 sec)

To see the table structure we use this command.

mysql> desc EmployeeInfo;

Field	Type	Null	Key	Default	Extra |
Emp_id	int	NO	PRI	NULL	
EmpFname	varchar(10)	YES		NULL	
EmpLname	varchar(20)	YES		NULL	
Department	varchar(10)	YES		NULL	
project	char(5)	YES		NULL	
Address	varchar(20)	YES		NULL	
DOB	date	YES		NULL	
gender	char(2)	YES		NULL	

8 rows in set (0.00 sec)

Insert data into table:

mysql> insert into EmployeeInfo
values(1,'Sanjay','Mehra','HR','P1','Hyderabad(HYD)','01/12/1976','M');

ERROR 1292 (22007): Incorrect date value: '01/12/1976' for column 'DOB' at row 1

mysql> insert into EmployeeInfo
values(1,'Sanjay','Mehra','HR','P1','Hyderabad(HYD)','1976/12/01','M');

Query OK, 1 row affected, 1 warning (0.02 sec)

mysql> insert into EmployeeInfo
values(2,'Ananya','Mishra','Admin','P2','Delhi(DEL)','1968/05/02','F');

Query OK, 1 row affected, 1 warning (0.01 sec)

```
mysql>  insert into EmployeeInfo
values(3,'Rohan','Diwan','Account','P3','Mumbai(BOM)','1980/01/01','M');

Query OK, 1 row affected, 1 warning (0.01 sec)

mysql>  insert into EmployeeInfo
values(4,'Sonia','Kulkarni','HR','P1','Hyderabad(HYD)','1992/05/02','F');

Query OK, 1 row affected, 1 warning (0.01 sec)

mysql>  insert into EmployeeInfo
values(5,'Ankith','Kapoor','Admin','P2','Delhi(DEL)','1994/07/03','M');

Query OK, 1 row affected, 1 warning (0.01 sec)
```

Table of EmployeeInfo:

```
mysql> Select*from EmployeeInfo;
```

Emp_id	EmpFname	EmpLname	Department	project	Address	DOB	gender
1	Sanjay	Mehra	Hr	P1	Hyderabad(HYD)	1976-12-01	M
2	Ananya	Mishra	Admin	P2	Delhi(DEL)	1968-05-02	F
3	Rohan	Diwan	Account	P3	Mumbai(BOM)	1980-01-01	M
4	Sonia	Kulkarni	HR	P1	Hyderabad(HYD)	1992-05-02	F
5	Ankith	Kapoor	Admin	P2	Delhi(DEL)	1994-07-03	M

Creation of table EmployeePosition in same database:

```
mysql> create table EmployeePosition(Emp_id int primary key,EmpPosition varchar(20),Dateofjoining
date,salary int);

mysql> desc EmployeePosition;
```

Field	Type	Null	Key	Default	Extra
Emp_id	int	NO	PRI	NULL	
EmpPosition	varchar(20)	YES		NULL	
Dateofjoining	date	YES		NULL	
salary	int	YES		NULL	

```
mysql> insert into EmployeePosition values(1,'Manager','2022/05/01',500000);

Query OK, 1 row affected, 1 warning (0.02 sec)

mysql>  insert into EmployeePosition values(2,'Executive','2022/05/02',75000);

Query OK, 1 row affected, 1 warning (0.00 sec)
```

mysql> insert into EmployeePosition values(3,'Manager','2022/05/01',90000);

Query OK, 1 row affected, 1 warning (0.01 sec)

mysql> insert into EmployeePosition values(4,'Lead','2022/05/02',85000);

Query OK, 1 row affected, 1 warning (0.00 sec)

mysql> insert into EmployeePosition values(5,'Executive','2022/05/01',300000);

Query OK, 1 row affected, 1 warning (0.01 sec)

EmployeePosition Table:

mysql> select*from EmployeePosition;

Emp_id	EmpPosition	Dateofjoining	salary
1	Manager	2022-05-01	500000
2	Executive	2022-05-02	75000
3	Manager	2022-05-01	90000
4	Lead	2022-05-02	85000
5	Executive	2022-05-01	300000

5 rows in set (0.01 sec)

Queries:

1.Write a query to fetch the EmpFname from the EmployeeInfo table in the upper case and use the ALIAS name as EmpName.

Ans:

mysql> select upper(EmpFname) as Empname from EmployeeInfo;

Empname
SANJAY
ANANYA
ROHAN
SONIA
ANKITH

Query: 2. Write a query to fetch the number of employees working in the department ‘HR’.

Ans:

select*from EmployeeInfo where department='Hr';

Emp_id	EmpFname	EmpLname	Department	project	Address	DOB	gender
1	Sanjay	Mehra	HR	P1	Hyderabad(HYD)	1976-12-01	M
4	Sonia	Kulkarni	HR	P1	Hyderabad(HYD)	1992-05-02	F

Query: 3. Write a query to get the current date.

Ans:

select sysdate();

sysdate()

2023-07-28 19:53:17

Query: 4. Write a query to retrieve the first four characters of EmpLname from the EmployeeInfo table.

Ans:

mysql> select substring(empLname,1,4) from EmployeeInfo;

substring(empLname,1,4)

Mehr

Mish

Diwa

Kulk

Kapo

5 rows in set (0.05 sec)

Query: 5. Write a query to fetch only the place name(string before brackets) from the Address column of EmployeeInfo table.

Ans:

mysql> select substring_index(address, '(',1)as place from EmployeeInfo;

place

Hyderabad

Delhi

Mumbai

Hyderabad

Delhi

5 rows in set (0.02 sec)

Query: 6. Write a query to create a new table that consists of data and structure copied from the other table.

Ans:

CREATE TABLE NewTable AS SELECT * FROM EmployeeInfo;

select*from newtable;

Emp_id	EmpFname	EmpLname	Department	project	Address	DOB	gender
1	Sanjay	Mehra	HR	P1	Hyderabad(HYD)	1976-12-01	M
2	Ananya	Mishra	Admin	P2	Delhi(DEL)	1968-05-02	F
3	Rohan	Diwan	Account	P3	Mumbai(BOM)	1980-01-01	M
4	Sonia	Kulkarni	HR	P1	Hyderabad(HYD)	1992-05-02	F
5	Ankith	Kapoor	Admin	P2	Delhi(DEL)	1994-07-03	M

5 rows in set (0.00 sec)

Query: 7. Write query to find all the employees whose salary is between 50000 to 100000.

Ans:

select * from EmployeePosition where salary between 50000 and 100000;

Emp_id	EmpPosition	Dateofjoining	salary
2	Executive	2022-05-02	75000
3	Manager	2022-05-01	90000
4	Lead	2022-05-02	85000

3 rows in set (0.00 sec)

Query: 8. Write a query to find the names of employees that begin with ‘S’.

Ans:

mysql> select*from EmployeeInfo where EmpFname like 's%';

Emp_id	EmpFname	EmpLname	Department	project	Address	DOB	gender
1	Sanjay	Mehra	HR	P1	Hyderabad(HYD) |	1976-12-01	M
4	Sonia	Kulkarni	HR	P1	Hyderabad(HYD) |	1992-05-02	F

2 rows in set (0.01 sec)

Query: 9. Write a query to fetch top N records.

Ans:

mysql> select distinct*from EmployeePosition limit 3;

Emp_id	EmpPosition	Dateofjoining	salary
1	Manager	2022-05-01	500000
2	Executive	2022-05-02	75000
3	Manager	2022-05-01	90000

3 rows in set (0.00 sec)

Query: 10. Write a query to retrieve the EmpFname and EmpLname in a single column as "FullName". The first name and the last name must be separated with space.

Ans:

```
select concat(EmpFname,' ',EmpLname) as 'fullname' from EmployeeInfo;
```

fullname
Sanjay Mehra
Ananya Mishra
Rohan Diwan
Sonia Kulkarni
Ankith Kapoor

5 rows in set (0.05 sec)

Query: 11. To Find second and Third Highest salary in a table?

Table creation:

```
create table empl(ID int,salary int,Name varchar(20),Dept_id varchar(20));
```

```
mysql> desc empl;
```

Field	Type	Null	Key	Default	Extra
ID	int	YES		NULL	
salary	int	YES		NULL	
Name	varchar(20)	YES		NULL	
Dept_id	varchar(20)	YES		NULL	

Insert values:

```
mysql> insert into empl values(1,3400,'Anurag','UI developers');
Query OK, 1 row affected (0.03 sec)
mysql> insert into empl values(2,33000,'Harsh','Backend developers');
Query OK, 1 row affected (0.00 sec)
mysql> insert into empl values(3,36000,'Sumit','Backend developers');
```

Query OK, 1 row affected (0.01 sec)

mysql> insert into empl values(4,36000,'Ruhi','UI developers');

Query OK, 1 row affected (0.01 sec)

mysql> insert into empl values(5,37000,'Kae','UI developers');

Query OK, 1 row affected (0.01 sec)

Creating the table:

mysql> select*from empl;

ID	salary	Name	Dept_id
1	34000	Anurag	UI developers
2	33000	Harsh	Backend developers
3	36000	Sumit	Backend developers
4	36000	Ruhi	UI developers
5	37000	Kae	UI developers

5 rows in set (0.00 sec)

11.To Find second and Third Highest salary in a table?

Ans:

mysql> select max(salary) from empl where salary<(select max(salary)from empl);

max(salary)
36000

1 row in set (0.00 sec)

select min(salary) from empl where salary<(select max(salary)from empl);

min(salary)
33000

1 row in set (0.00 sec)

12. Explain with example Unique Key Primary Key Foreign Key.

Unique Key: A unique key is nothing but in a single field or combination of fields that ensure all values going to store into the column will be unique. It means a column cannot stores duplicate values.

Example Query: Create table information(Id int Unique,name varchar(30),mobilenum int);

Here we can say in column each Id should have unique number.

Primary Key: Primary key is a single or combination of the field, which is used to identify each record in a table uniquely. If the column contains primary key constraints, then it cannot be null or empty. A table may have duplicate columns, but it can contain only one primary key. It always contains unique value into a column.

Example Query:create table new(id int auto_increment, emailid varchar(30),Primary Key(id));

Foreign Key: The foreign key is used to link one or more than one table together. A foreign key matches the primary key field of another table. It means a foreign key field in one table refers to the primary key field of the other table.