Employee Database Project

Creation of tables and its output -

1. Employee Details Table-

- Emp ID - int , primary key auto increment
- First Name - varchar
- Last Name - varchar
- Date of Birth - date
- Specialisation - varchar
- Phno - long
- Email ID – varchar unique
- Address - varchar
- Date of join - date
- Department ID – int

```
create database Employee_Management_AB;
use Employee_Management_AB;

create table Employee_Details
(Emp_ID int auto_increment PRIMARY KEY, First_Name VARCHAR(30), Last_Name VARCHAR(30),
DOB date, Specialiation VARCHAR(30), Phone_no long, Email_id VARCHAR(50) UNIQUE,
Address VARCHAR(100), Date_of_Join date, Department_ID int);

insert into Employee_Details (First_Name, Last_Name, DOB, Specialiation, Phone_no, Email_id, Address, Date_of_Join, Department_ID)
values("Anirban","Bhowmik","2023-10-28", "Admin", 12345678, "anirban.bhowmik11@gmail.com", "India", "2023-10-28", 11),
("Aman","Singh","1887-12-01", "Associate", 987654321, "aman_kumar_singh@gmail.com", "Bangalore", "2023-12-01", 21),
("Vishal","Bhatia","1990-02-02", "HR", 09876543, "vishak_bhatia.corporate@gmail.com", "Pune", "2023-11-06", 06);

select * from Employee_details;
```

Output:

Emp_ID	First_Name	Last_Name	DOB	Specialiation	Phone_no	Email_id	Address	Date_of_Join	Department_ID
1	Anirban	Bhowmik	2023-10-28	Admin	12345678	anirban.bhowmik11@gmail.com	India	2023-10-28	11
2	Aman	Singh	1887-12-01	Associate	987654321	aman_kumar_singh@gmail.com	Bangalore	2023-12-01	21
3	Vishal	Bhatia	1990-02-02	HR	9876543	vishak_bhatia.corporate@gmail.com	Pune	2023-11-06	6
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

```
insert into Employee_Details (First_Name, Last_Name, DOB, Specialiation, Phone_no, Email_id, Address, Date_of_Join, Department_ID)
values("Nitin","Banerjee","1979-01-05", "Cloud", 00998877, "banerjee.nitin@yahoo.com", "Kolkata", "2023-12-12", 20),
("Ishan","Gogoi","1982-03-23", "Finance", 12312312, "09ishan_gogoi@rediff.com", "Assam", "2023-12-20", 30),
("Sandeep","Sharma","1988-08-30", "General", 09809809, "sandeep_kumar_sharma88@yahoo.com", "Gujarat", "2023-12-19", 33);

select * from Employee_details;
```

Output:

Emp_ID	First_Name	Last_Name	DOB	Specialiation	Phone_no	Email_id	Address	Date_of_Join	Department_ID
1	Anirban	Bhowmik	2023-10-28	Admin	12345678	anirban.bhowmik11@gmail.com	India	2023-10-28	11
2	Aman	Singh	1887-12-01	Associate	987654321	aman_kumar_singh@gmail.com	Bangalore	2023-12-01	21
3	Vishal	Bhatia	1990-02-02	HR	9876543	vishak_bhatia.corporate@gmail.com	Pune	2023-11-06	6
4	Nitin	Banerjee	1979-01-05	Cloud	998877	banerjee.nitin@yahoo.com	Kolkata	2023-12-12	20
5	Ishan	Gogoi	1982-03-23	Finance	12312312	09ishan_gogoi@rediff.com	Assam	2023-12-20	30
6	Sandeep	Sharma	1988-08-30	General	9809809	sandeep_kumar_sharma88@yahoo.com	Gujarat	2023-12-19	33
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

2. Department Details Table-
    - Emp_ID – int - foreign key of Employee_details table
    - Department ID -int
    - Department Name –Varchar

```
4  create table Department_details
5  (
6  Emp_ID INT,
7  dept_ID INT,
8  department_name VARCHAR(30),
9  foreign key(Emp_ID) REFERENCES Employee_details(Emp_ID) On delete cascade);
10
11 insert into Department_details(Emp_ID, dept_ID, department_name)
12 values(1,11,"VP"),(2,21,"Analyst"),(3,6,"HR"),(4,20,"Cloud Admin"),(5,30,"Financial Analyst"), (6,33,"Service Desk");
13
14 select * from Department_details;
```

Output:

Emp_ID	dept_ID	department_name
1	11	VP
2	21	Analyst
3	6	HR
4	20	Cloud Admin
5	30	Financial Analyst
6	33	Service Desk

Note:

The 'ON DELETE CASCADE' clause in a foreign key constraint is used to specify the action that should be taken when a referenced row in the parent table is deleted.

This means that when a row in the "Employee_details" table is deleted, and that row is being referenced by a row in the "Department_details" table through the 'dept_ID' foreign key, the corresponding row in the 'Department_details' table will also be automatically deleted.

3. Employee_Work_Details Table -
    - Emp ID –int foreign key of Employee_details table
    - Last Salary Hike -date
    - Reporting Manager -varchar
    - Senior Manager -varchar
    - Production Month -varchar
    - Production Data –varchar

```
4  create table Employee_Work_details
5  (
6  Emp_ID INT,
7  Last_Salary_Hike date,
8  Reporting_Manager VARCHAR(40),
9  Senior_Manager VARCHAR(40),
10 Production_Month VARCHAR(30),
11 Production_Data VARCHAR(40),
12 foreign key(Emp_ID) REFERENCES Employee_details(Emp_ID) On update cascade);
13
14 insert into Employee_Work_details(Emp_ID, Last_Salary_hike, Reporting_Manager, Senior_Manager, Production_Month, Production_Data)
15 values(1,null,"Anirban Bhowmik", "N/A", "December", ""),(2,null,"Anirban Bhowmik", "Anirban Bhowmik", "December", ""),
16 (3,null,"Anirban Bhowmik", "Anirban Bhowmik", "December", ""),(4,null,"Anirban Bhowmik", "Anirban Bhowmik", "December", ""),
17 (5,null,"Anirban Bhowmik", "Anirban Bhowmik", "December", ""),(6,null,"Anirban Bhowmik", "Anirban Bhowmik", "December", "");
18
```

Output-

Emp_ID	Last_Salary_Hike	Reporting_Manager	Senior_Manager	Production_Month	Production_Data
1	NULL	Anirban Bhowmik	N/A	December	
2	NULL	Anirban Bhowmik	Anirban Bhowmik	December	
3	NULL	Anirban Bhowmik	Anirban Bhowmik	December	
4	NULL	Anirban Bhowmik	Anirban Bhowmik	December	
5	NULL	Anirban Bhowmik	Anirban Bhowmik	December	
6	NULL	Anirban Bhowmik	Anirban Bhowmik	December	

4. Production_Data
    - Number_of_projects_Assigned -Int,
    - Assigned_Date - Date,
    - Project_Status - VARCHAR,
    - Number_of_projects_Delivered - Int,
    - Completion_Date - Date,
    - Completed_By_EmpID - Int,
    - Comments – VARCHAR

```
create table Production_Data
( Number_of_projects_Assigned INTEGER,
Assigned_Date Date,
Project_Status VARCHAR(30),
Number_of_projects_Delivered INTEGER,
Completion_Date Date,
Completed_By_EmpID Int,
Comments VARCHAR(500),
FOREIGN key Production_Data(Completed_By_EmpID) references Employee_Details(Emp_ID) ON update cascade
);

insert into Production_Data (Number_of_projects_Assigned, Assigned_Date, Project_Status, Number_of_projects_Delivered, Completion_Date,
Completed_By_EmpID, Comments)
values (11, "2023-12-31", "Assigned", 0, NULL, 1);

select * from Production_Data;
```

Output:

Number_of_projects_Assigned	Assigned_Date	Project_Status	Number_of_projects_Delivered	Completion_Date	Completed_By_EmpID	Comments
11	2023-12-31	Assigned	0	NULL	1	

5. Leave_Data
    - Emp ID -Int
    - Leave Request ID –Int Auto_increment
    - Leave Type - Varchar
    - Leave Start Date -Date
    - Leave End Date -Date
    - Number of Days -Int
    - Reason for leave -Varchar
    - Leave Status -Varchar

```
4  create table Leave_Data
5  (Emp_ID Integer,
6  Leave_Request_ID INTEGER UNIQUE auto_increment,
7  Leave_Type VARCHAR(20),
8  Leave_Start_Date Date,
9  Leave_End_Date Date,
10 Number_of_days int,
11 Reason_for_leave VARCHAR(50),
12 Leave_Status VARCHAR(20),
13 foreign key Leave_Data(Emp_ID) REFERENCES Employee_details(Emp_ID) on update cascade);
14
15 insert into Leave_Data(Emp_ID, Leave_Type, Leave_Start_Date, Leave_End_Date, Number_of_days, Reason_for_leave, Leave_Status)
16 values (1,"No leave","2023-12-31","2023-12-31",0,"No leave","Pending");
17
18 select * from Leave_data;
```

Output:

Emp_ID	Leave_Request_ID	Leave_Type	Leave_Start_Date	Leave_End_Date	Number_of_days	Reason_for_leave	Leave_Status
1	1	No leave	2023-12-31	2023-12-31	0	No leave	Pending
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

6. Attendance Tracker
    - Emp Id - Int
    - Attendance_Date - Date
    - Login_Time -Time
    - Logout_Time -Time
    - Hours_Worked –Int

```
create table Attendance_Tracker
( Emp_ID Integer,
Attendance_Date date,
Login_Time Time,
Logout_Time Time,
Hours_worked Int,
foreign key Attendance_Tracker(Emp_ID) references Employee_Details(Emp_ID));

Insert into Attendance_Tracker(Emp_ID, Attendance_Date, Login_Time, Logout_Time, Hours_worked)
values(1,"2023-12-20","9:00","6:30",8), (1,"2023-12-21","9:00","6:40",8), (1,"2023-12-22","9:00","6:15",8), (1,"2023-12-23","9:00","6:50",8),
(1,"2023-12-24","9:00","5:30",7), (1,"2023-12-26","9:00","6:00",8), (1,"2023-12-27","9:00","6:10",8), (1,"2023-12-28","9:00","5:50",8) ;

select * from Attendance_Tracker;
```

Output:

Emp_ID	Attendance_Date	Login_Time	Logout_Time	Hours_worked
1	2023-12-20	09:00:00	06:30:00	8
1	2023-12-21	09:00:00	06:40:00	8
1	2023-12-22	09:00:00	06:15:00	8
1	2023-12-23	09:00:00	06:50:00	8
1	2023-12-24	09:00:00	05:30:00	7
1	2023-12-26	09:00:00	06:00:00	8
1	2023-12-27	09:00:00	06:10:00	8
1	2023-12-28	09:00:00	05:50:00	8

7. Payroll
    - Salary ID -Int unique auto increment
    - Employee ID -int
    - Salary Amount -long
    - Salary Start date -date
    - Salary End date -date

```
4  create table Payroll(
5  Salary_ID Integer UNIQUE auto_increment,
6  Emp_ID INTEGER,
7  Salary_Amount long,
8  Salary_Start_Date date,
9  Salary_End_Date date,
10 foreign key Payroll(Emp_ID) references Employee_Details(Emp_ID));
11
12 insert into Payroll (Emp_ID,Salary_Amount, Salary_Start_Date, Salary_End_Date)
13 values(1,10,"2023-12-01","2023-12-31");
14
15 select * from payroll;
```

Output:

Salary_ID	Emp_ID	Salary_Amount	Salary_Start_Date	Salary_End_Date
1	1	10	2023-12-01	2023-12-31
NULL	NULL	NULL	NULL	NULL