**MySql\_Tasks**

**Task- 1:**

Create two tables: users and orders.

Each user can have multiple orders.

Write a SQL query to fetch the names of users along with the total number of orders they have placed.

**Ans: create table users(user\_id int,name varchar(50),email varchar(100));**

**create table orders(order\_id int, user\_id int,order\_date DATE,amout decimal(10,2));**

**select users.name,(select count(\*) from orders where orders.user\_id=users.user\_id) as total\_orders from users;**

**Task-2:**

You are working with a database that stores information about students and their courses. There are three tables: students, courses, and enrollments.

Write a SQL query to display the names of students along with the courses they have enrolled in.

**Ans:create table students(student\_id int,student\_name varchar(50),email varchar(200));**

**create table courses(course\_id int,course\_name varchar(50));**

**create index idx\_course\_id on courses(course\_id) ;**

**alter table courses add primary key (course\_id);**

**CREATE TABLE enrollments ( enrollment\_id int , student\_id int,course\_id int,enrollment\_date DATE,FOREIGN KEY (student\_id) REFERENCES students(student\_id),FOREIGN KEY (course\_id) REFERENCES courses(course\_id));**

**select students.student\_name as student\_name,courses.course\_name as course\_name from students join enrollments on students.student\_id=enrollments.students\_id join courses on courses.course\_id=enrollements.course\_id;**

**Task-3:**

You need to retrieve data from a database that tracks product sales. There are tables for products, sales, and customers.

Write a SQL query to show the total sales amount for each product category.

**ans:select p.category,sum(s.amout) as total\_sales from products p join sales s on p.product\_id=s.product\_id group by p.category;**

**Task-4:**

You have a database containing information about employees in a company.

Write a SQL query to list the names of employees along with their respective managers' names.

**ans:select e.employee\_name as Employee,m.employee\_name as Manager from employees e left join employees m on e.manager\_id = m.employee\_id;**

**Task-5:**

You are managing a database for an online store.

Write a query to retrieve the top 10 bestselling products based on the total number of units sold.

**ans:select product\_name,sum(units\_sold) as total\_units\_sold from sales group by product\_name order by total\_units\_sold desc limit 10;**

**Task-6:**

You have tables for students, courses, and grades.

Write a SQL query to display the average grade for each student.

**ans:select students\_id,avg(grade) as average\_grade from grades group by student\_id;**

**Task-7:**

You are working with a database for a social media platform.

Write a query to show the users who have the most friends.

**ans: select user\_id, count(friend\_id) as num\_of\_friends from friendships group by user\_id order by num\_of\_friends desc limit 1;**

**Task-8:**

You have tables for employees and departments.

Write a query to display the department names along with the total number of employees in each department.

**ans:select department\_name,count(employee\_id) as total\_employees from employees join departments on employees.department\_id=departments.departmentid group by department\_name;**

**Task-9:**

You need to retrieve data from a database tracking product inventory.

Write a query to display products with low stock (less than 10 units).

**ans:select product\_name,stock\_quantity from products where stock\_quantity<10;**

**Task-10:**

You have tables for customers and orders.

Write a query to show the average order value for each customer.

**ans:**

**select customer\_id,avg(order\_value) as average\_order\_value from orders group by customer\_id;**

**Task-11:**

In a database storing movie information,

Write a query to show the top 5 highest-rated movies by users.

**ans:create table movie(sl\_no int,moive\_name varchar(100),release\_date date,status varchar(100),movie\_rating decimal(10,2));**

**select moive\_name,avg(movie\_rating) as average\_rating from movie group by moive\_name order by average\_rating desc limit 5;**

**Task-12:**

You have tables for invoices and payments.

Write a query to show the unpaid invoices and their total amount.

**ans: create table invoices(invoice\_id int primary key,amount decimal(10,2),payment\_status varchar(50));**

**select invoice\_id,sum(amount) as total\_amout from invoices where payment\_status='unpaid' group by invoice\_id;**