Ques 1: Write a Query That Finds the Number of Songs by Artist

Artist Table

id	artist_name
1	Prince
2	Jimi Hendrix
3	Santana
4	Otis Redding
5	Lou Rawls

Song table

id	artist_id	song_title
1	1	Purple Rain
2	2	Purple Haze
3	3	Europa
4	1	Cream
5	1	Bambi
6	1	Why You Wanna Treat Me So Bad?
7	2	Spanish Castle Magic
8	3	Taboo
9	3	Incident at Neshabur
10	3	Flor D' Luna

Solution:

```
select artist_name, count(song_title) as count from song right
join artist on song.artist_id = artist.id group by
artist_name;
```

	artist_name	count
1	Prince	4
2	Jimi Hendrix	2
3	Santana	4
4	Otis Redding	0
5	Lou Rawls	0

Ques 2: Show the total quantity by product category, but only for the individual products whose quantity is above the average quantity for all products.

Product Table:

id	product_name	quantity	product_category
1	Apple MacBook Air (2020) MGN63N/A Space Gray	319	Laptop
2	Fairphone 4 128GB Green 5G	208	Mobile phone
3	Apple iMac 24" (2021) 16GB/512GB Apple M1 with 8 core GPU Silver	157	Desktop
4	HP 17-cp0971nd	487	Laptop
5	Huawei P30 Pro - 128GB - Blue	148	Mobile phone
6	Lenovo Legion T5 - AMD Ryzen 9 - 32 GB - 2TB HDD+SSD - Windows 10 Home PC	514	Desktop
7	Toshiba Dynabook Satellite Pro E10-S-101 Notebook	207	Laptop
8	Samsung Galaxy S23 5G - 256GB - Phantom Black	56	Mobile phone
9	Intel Compleet PC | Intel Core i7-10700	459	Desktop

Solution:

```
select product_category, sum(quantity) as Quantity from
product group by product_category having sum(quantity) >
avg(quantity);
```

	product_category	Quantity
1	Laptop	1013
2	Mobile phone	412
3	Desktop	1130

Ques 3: Write a Query to Return Salespersons and Their Monthly Sales Data Above Their Personal Sales Average.

Ques 4: Write the query to find the Salesperson with 3rd highest monthly_sales in the below salesperson tables.

Table salesperson:

id	first_name	last_name
1	Nina	Lee
2	Carolina	Green
3	Mick	Johnson

Table Sales:

id	salesperson_id	monthly_sales	period
1	1	1,200.47	2021_10
2	2	5,487.22	2021_10
3	3	700.47	2021_10
4	1	15,747.54	2021_11
5	2	16,700.87	2021_11
5	3	14,322.87	2021_11
6	1	9,745.55	2021_12
7	2	9,600.97	2021_12
8	3	6,749.58	2021_12

Solution for Ques 4:

```
select salesperson_id, concat(first_name, ' ',last_name) as "Full name",
monthly_sales from sales right join salesperson on sales.salesperson_id =
salesperson.id order by monthly_sales desc limit 2,1;
```

	salesperson_id	`Full name`	monthly_sales
1	3	Mick Johnson	14322.87

Ques 5: SQL Query to fetch records that are present in one table but not in another table. Data given below

Ques 6: SQL query to fetch all the employees who are not working on any project.

Ques 7: Fetch all employees from EmployeeDetails who have a salary record in EmployeeSalary.

EmployeeDetails

EmpId	FullName	ManagerId	DateOfJoining	City
121	John Snow	321	01/31/2019	Toronto
321	Walter White	986	01/30/2020	California
421	Kuldeep Rana	876	27-11-2021	New Delhi
561	Rajesh	878	13-09-2020	Bangalore
675	Munjal	876	12-10-2019	New Delhi

EmployeeSalary:

EmpId	Project	Salary	Variable
121	P1	8000	500
321	P2	10000	1000
421	P1	12000	0

Solution for Q5:

```
select * from employeeDetails where EmpId not in (select
employeeSalary.EmpId from employeeSalary)
```

	EmpId	FullName	ManagerId	DateOfJoining	City
1	561	Rajesh	878	2020-09-13	Bangalore
2	675	Munjal	876	2019-12-10	New Delhi

Solution for Q6:

```
select employeeDetails.EmpId as "EmpId", FullName, Project,
Salary from employeeDetails right join employeeSalary on
employeeDetails.EmpId = employeeSalary.EmpId where Project is
not null;
```

	EmpId	FullName	Project	Salary
1	121	John Snow	P1	8000
2	321	Walter White	P2	10000
3	421	Kuldeep Rana	P1	12000

Solution for Q7:

```
select * from employeeDetails right join employeeSalary on
employeeDetails.EmpId = employeeSalary.EmpId where Salary is not
null;
```

	EmpId	FullName	Salary
1	121	John Snow	8000
2	321	Walter White	10000
3	421	Kuldeep Rana	12000