

# BUSINESS DATA MANAGEMENT

## CIA 4

# HOTEL MANAGEMENT

**Presented By**

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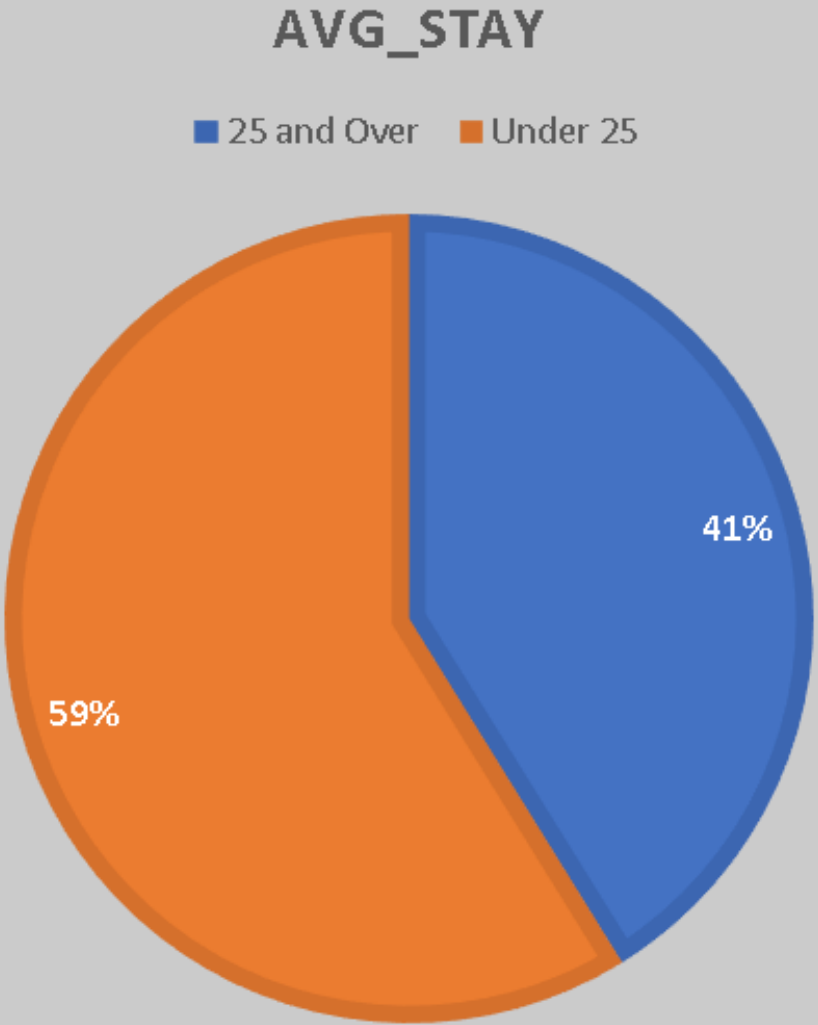
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# INTRODUCTION

**With the Hotel Management System model in SQL, hotels can effectively track guest preferences, manage reservations, allocate rooms based on availability, and generate comprehensive reports for performance evaluation and strategic planning. It simplifies complex operations, reduces manual errors, and enhances the overall management of hotel processes.**

# 1. Determine the length of stay for guests below the age of 25 and guests above the age of 25

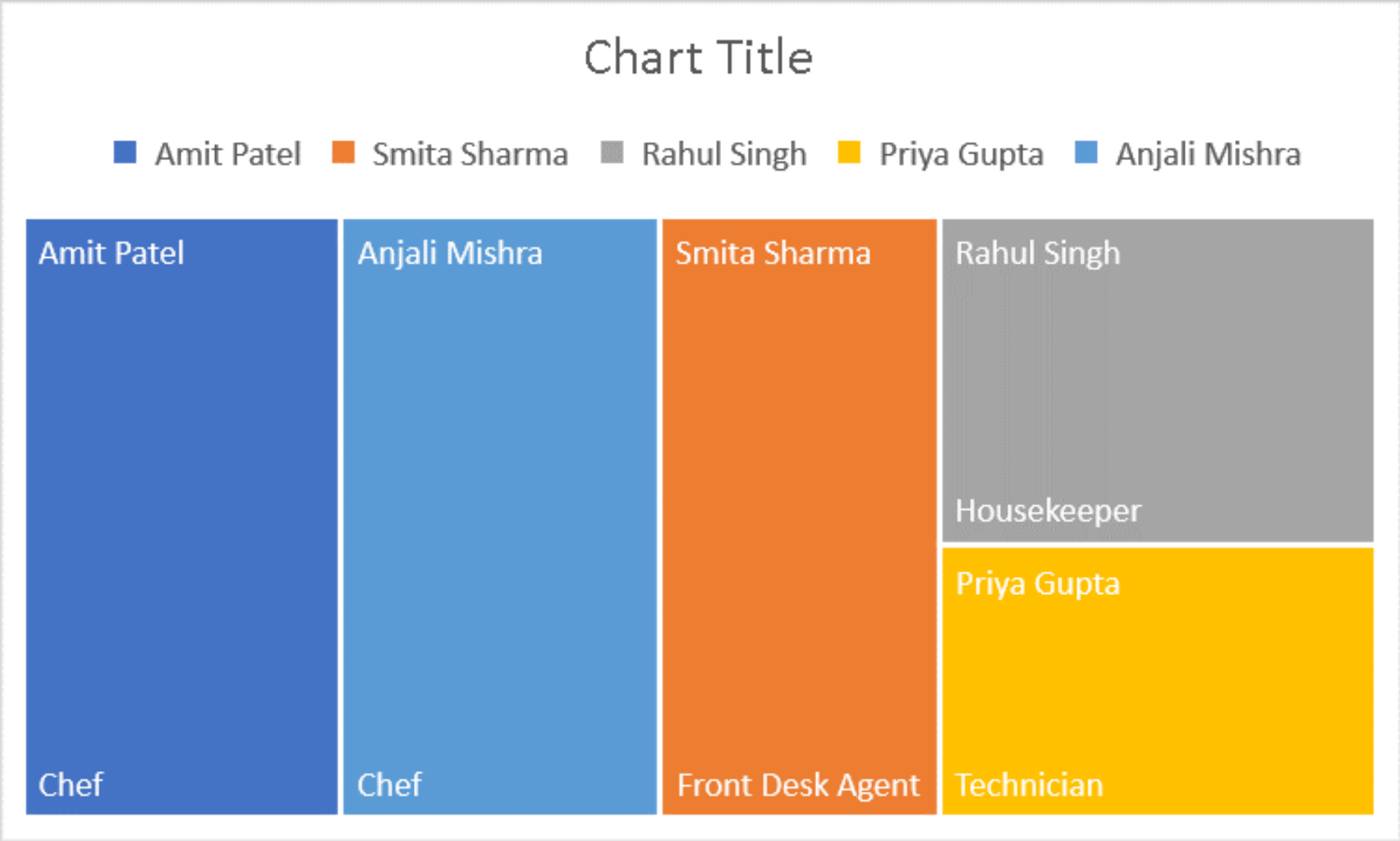
age_group	avg_stay
25 and Over	3.75
Under 25	4.5



```
SELECT AVG(DATEDIFF(check_out, check_in_)) AS  
average_length_of_stay,  
CASE WHEN gd.G_age < 25 THEN 'Below 25' WHEN  
gd.G_age >= 25 THEN 'Above 25' END AS age_group  
FROM Reservation res  
INNER JOIN Guest_details gd ON res.guest_id =  
gd.guest_id  
WHERE gd.G_age < 25 OR gd.G_age >= 25 GROUP BY  
age_group;
```

## 2. Retrieve the names of employees, their job roles, and their salaries

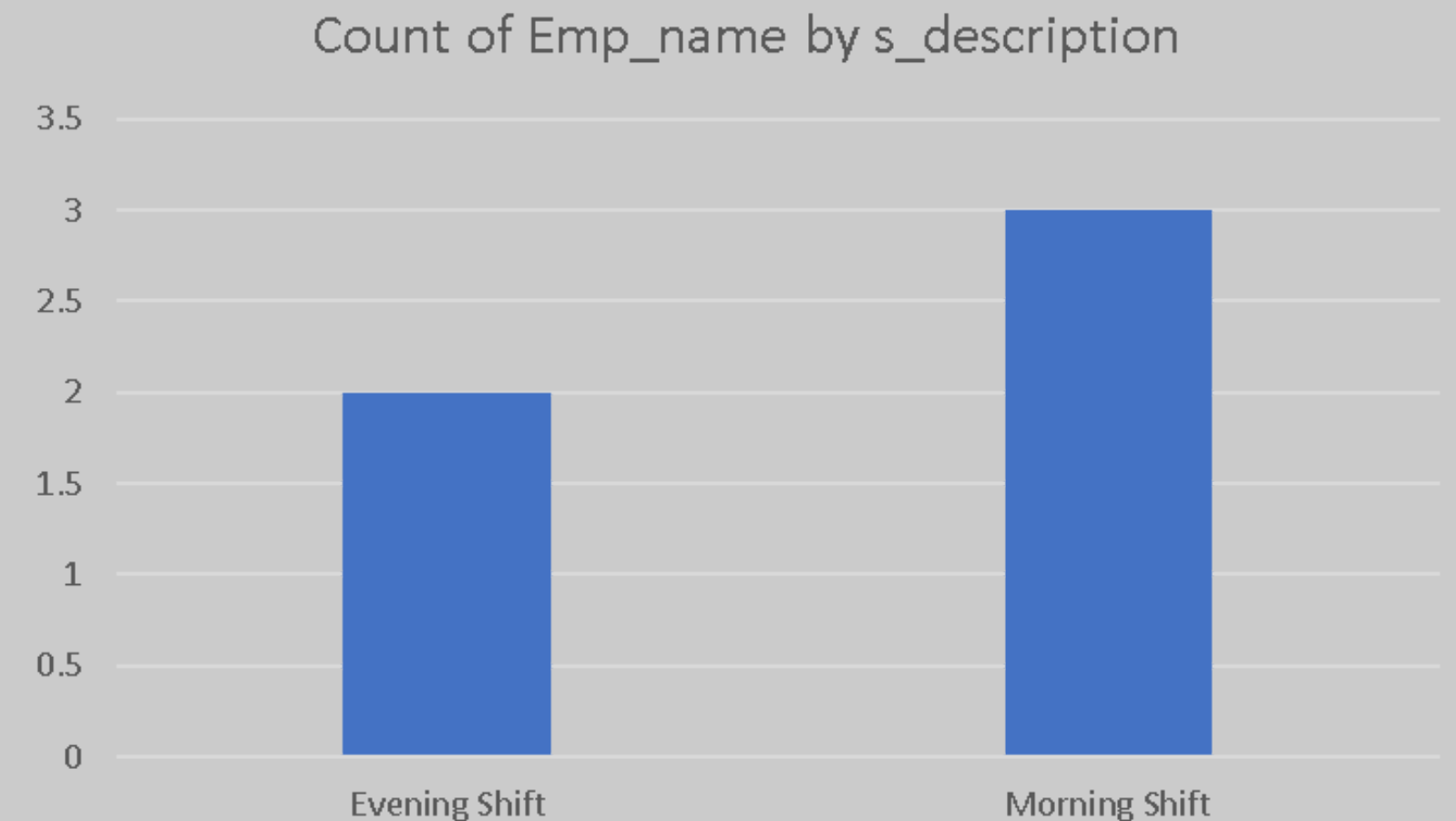
Emp_name	job_role	salary_rs
Amit Patel	Chef	40000
Smita Sharma	Front Desk Agent	35000
Rahul Singh	Housekeeper	30000
Priya Gupta	Technician	25000
Anjali Mishra	Chef	40000



```
SELECT Emp_name, job_role, salary_rs  
FROM H_Employee  
INNER JOIN job_title  
ON H_Employee.job_id = job_title.job_id;
```

### 3. Obtain the shift descriptions for every employee

Emp_id	Emp_name	s_description
1	Amit Patel	Morning Shift
2	Smita Sharma	Evening Shift
3	Rahul Singh	Morning Shift
4	Priya Gupta	Morning Shift
5	Anjali Mishra	Evening Shift

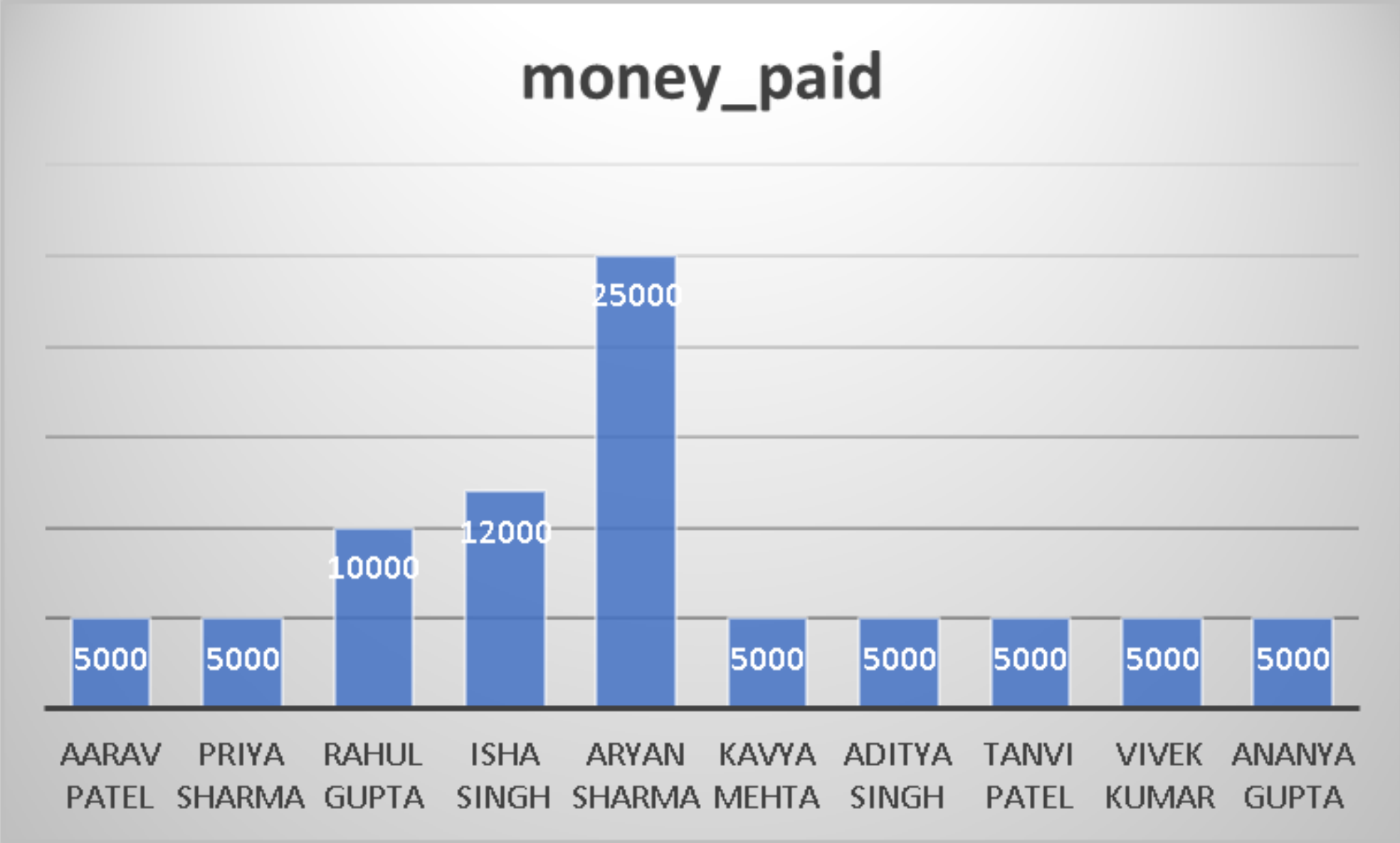


```
SELECT COUNT(CASE WHEN sh.s_description =  
'Morning shift' THEN 1 END)  
AS morning_shift_count, COUNT(CASE WHEN  
sh.s_description = 'Evening shift' THEN 1 END)  
AS evening_shift_count, COUNT(CASE WHEN  
sh.s_description = 'Night Shift' THEN 1 END)  
AS Night_shift_count  
FROM H_Employee emp  
JOIN shift sh ON emp.shift_id = sh.shift_id;
```



# 4. Determine the amount of money paid by each guest to stay in the hotel

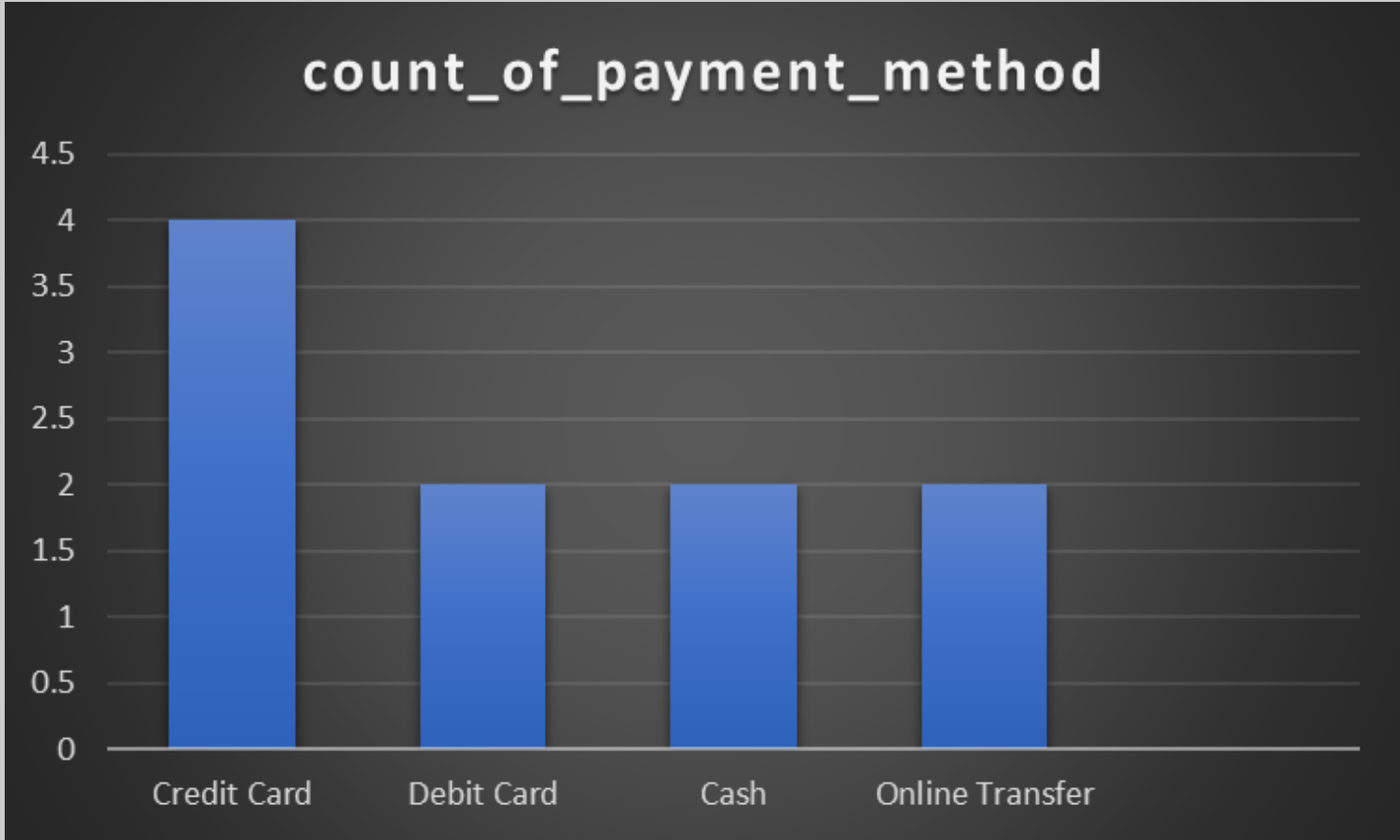
G_name	money_paid
Aarav Patel	5000
Priya Sharma	5000
Rahul Gupta	10000
Isha Singh	12000
Aryan Sharma	25000
Kavya Mehta	5000
Aditya Singh	5000
Tanvi Patel	5000
Vivek Kumar	5000
Ananya Gupta	5000



```
SELECT gd.G_name, r.Base_price AS money_paid  
FROM Guest_details gd  
JOIN Room r  
ON gd.guest_id = r.guest_id;
```

# 5. Determine the count of payment methods used by guests in the hotel

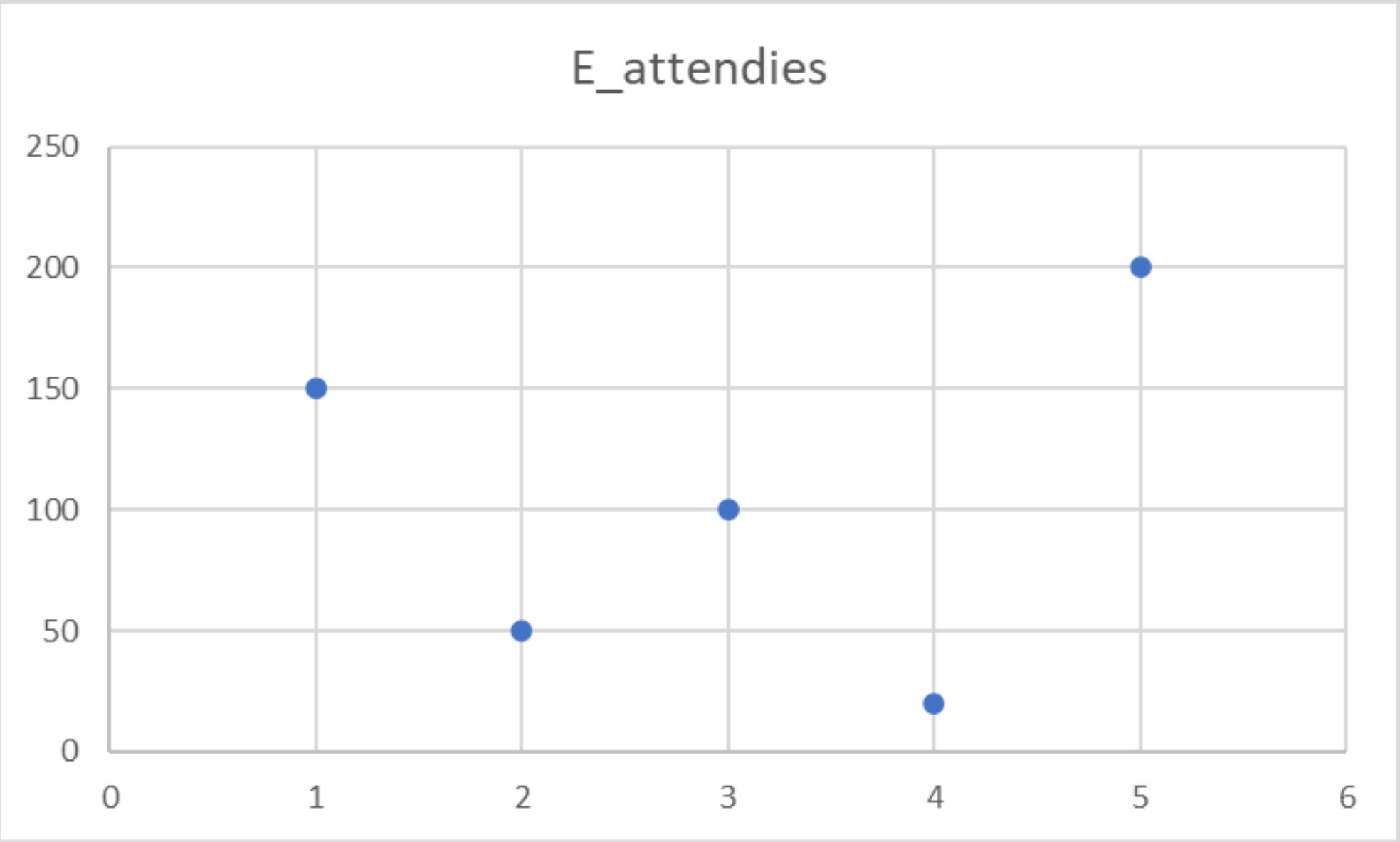
payment_method	count_of_payment_method
Credit Card	4
Debit Card	2
Cash	2
Online Transfer	2



```
SELECT payment_method,  
COUNT(payment_method)  
AS count_of_payment_method  
FROM payment GROUP BY payment_method;
```

# 6. Determine the number of attendees for each event organized by the hotel

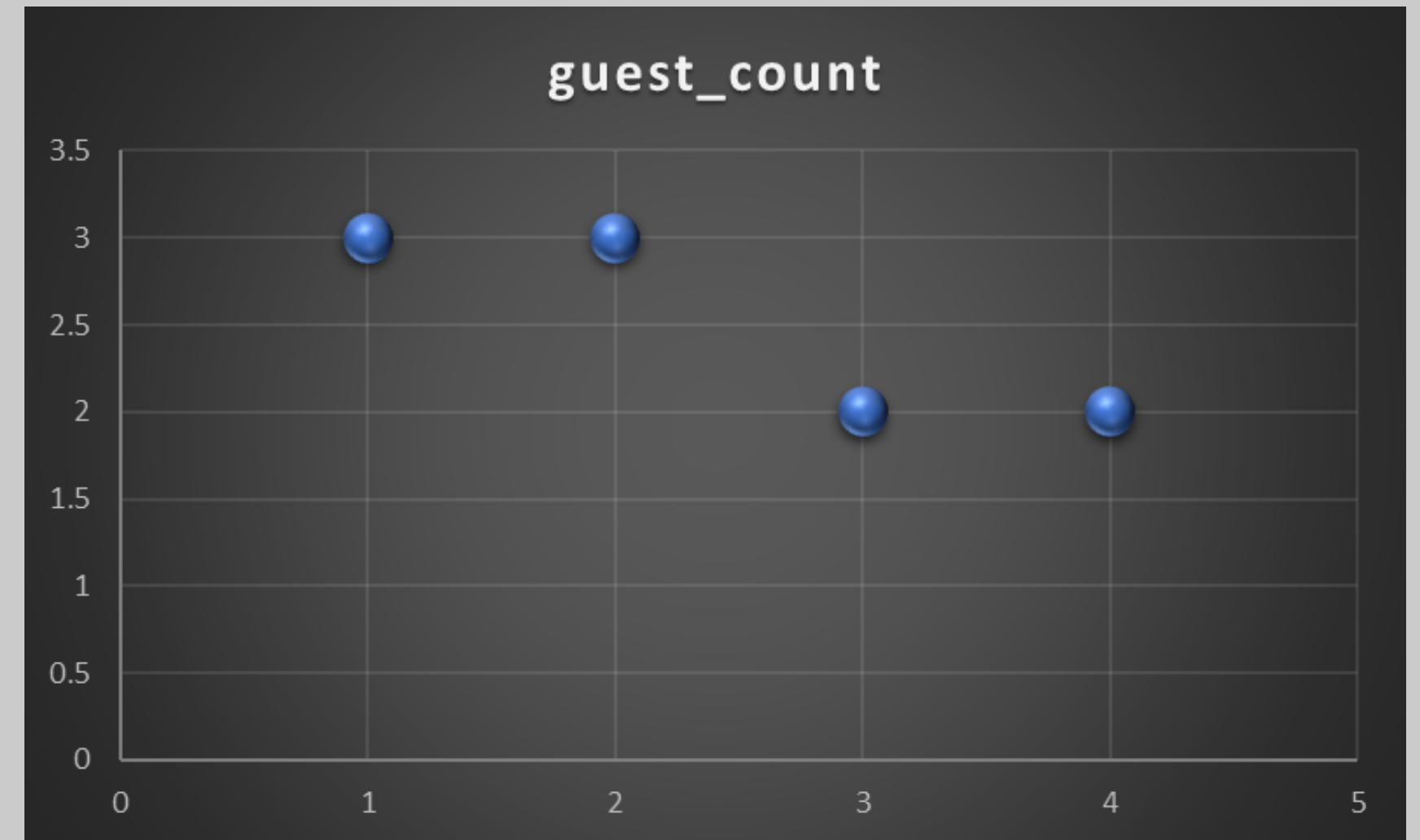
Event_id	E_name	E_attendies
1	Wedding Reception	150
2	Conference	50
3	Pool Party	100
4	Birthday Celebration	20
5	Charity Event	200



```
SELECT Event_id, E_name, E_attendies  
FROM H_event;
```

## 7. Determine the number of guests on each floor in the hotel

Floor_no	guest_count
1	3
2	3
3	2
4	2

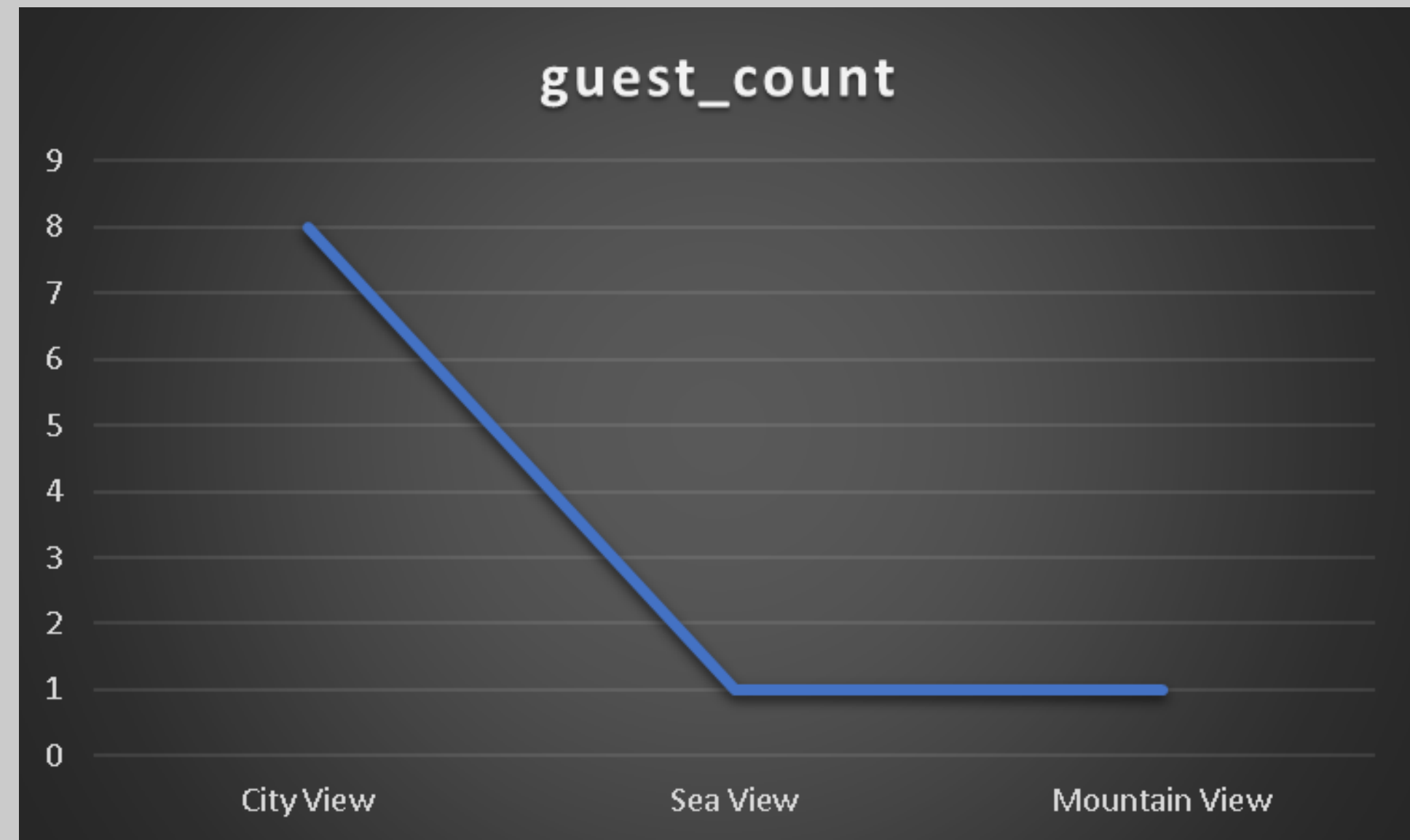


```
SELECT Room.Floor_no,  
COUNT(Room.guest_id) AS guest_count  
FROM Room  
JOIN Guest_details  
ON Room.guest_id = Guest_details.guest_id  
GROUP BY Room.Floor_no;
```



## 8. Determine the guest count based on the view of the room in the hotel

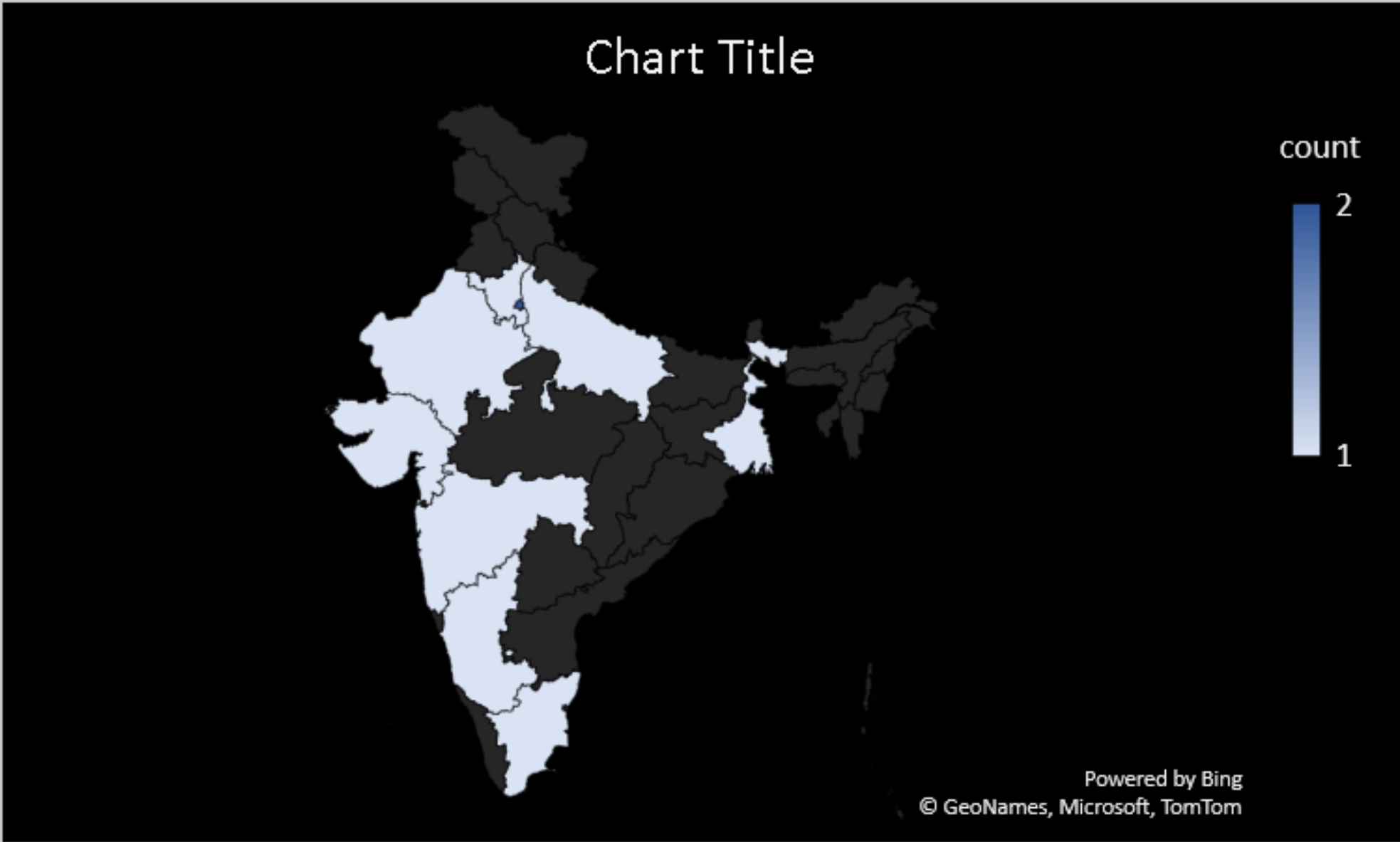
room_view	guest_count
City View	8
Sea View	1
Mountain View	1



```
SELECT room_view, COUNT(*) AS guest_count  
FROM Guest_details  
JOIN Room ON Guest_details.guest_id =  
Room.guest_id JOIN Room_type ON Room.room_no=  
Room_type.Room_no GROUP BY room_view;
```

# 9. Identify the states from which guests are coming to the hotel

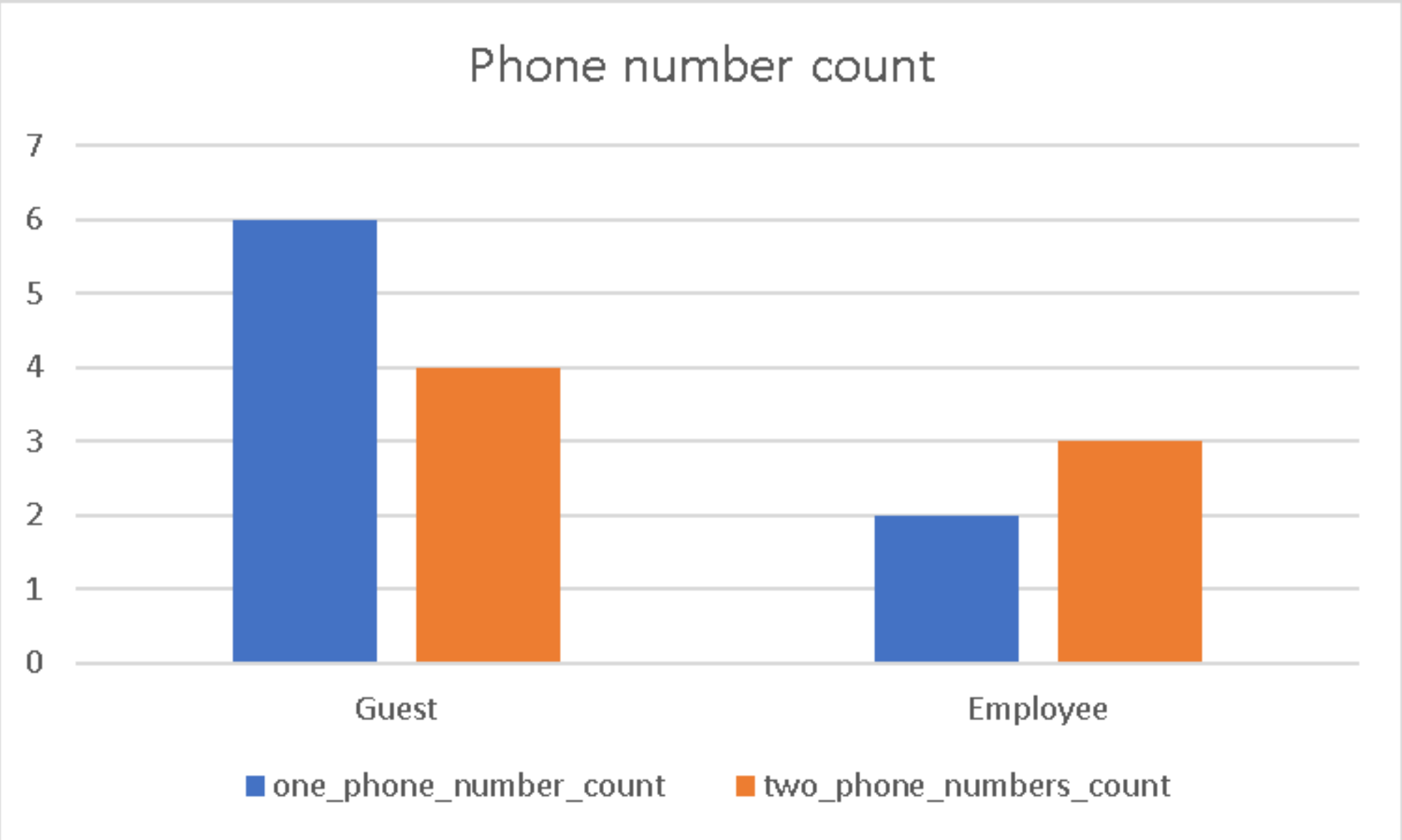
state	count
Maharash	1
Delhi	2
Rajasthan	1
West Bengal	1
Tamil Nadu	1
Gujarat	1
Uttar Pradesh	1
Karnataka	1
Haryana	1



```
CODE: SELECT state, COUNT(*) AS count  
FROM Address  
JOIN Guest_details  
ON Address.guest_id = Guest_details.guest_id  
GROUP BY state;
```

# 10. Determine the number of guests and employees who have provided one or two phone numbers in the hotel

type	one_phone_number_count	two_phone_numbers_count
Guest	6	4
Employee	2	3



```
SELECT gd.guest_id, gd.G_name AS guest_name, e.emp_id, e.Emp_name  
      AS employee_name  
      FROM Guest_details gd JOIN Phone_number pn  
ON gd.guest_id = pn.guest_id JOIN H_Employee e ON pn.emp_id =  
      e.emp_id WHERE (pn.phone_number IS NOT NULL AND  
pn.phone_number_2 IS NULL) OR (pn.phone_number IS NOT NULL AND  
      pn.phone_number_2 IS NOT NULL);  
SELECT gd.guest_id, gd.G_name AS guest_name, e.emp_id, e.Emp_name  
      AS employee_name FROM Guest_details gd JOIN Phone_number pn ON  
      gd.guest_id = pn.guest_id
```

# 11.Obtain the job descriptions for each employee

Emp_name	job_description
Amit Patel	knowledge of food safety regulations
Smita Sharma	Experience in customer service
Rahul Singh	Experience in housekeeping preferred
Priya Gupta	Experience in maintenance
Anjali Mishra	knowledge of food safety regulations

```
SELECT Emp_name, job_description  
FROM H_Employee  
JOIN job_title ON H_Employee.job_id = job_title.job_id;
```



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THANK YOU



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