```sql
-- Hotel Reservation Dataset

create database HotelReservation;-- Creating new database

use HotelReservation;-- using HotelReservation Database

SELECT
    *
FROM
    hotelres;



-- 1. What is the total number of reservations in the dataset?

select * from hotel;

SELECT
    COUNT(*) AS Total_Reservations
FROM
    hotelres;



-- 2. Which meal plan is the most popular among guests?

SELECT
    type_of_meal_plan, COUNT(*) total_count
FROM
    hotelres
GROUP BY type_of_meal_plan
ORDER BY total_count DESC limit 1;
```

-- 3. What is the average price per room for reservations involving children?

SELECT DISTINCT

   no_of_children,

   ROUND(AVG(avg_price_per_room), 2) AS average_price

FROM

   hotelres

WHERE

   no_of_children > 0

GROUP BY no_of_children

ORDER BY no_of_children; -- If no children, the average price for per reservation is 101.6

-- 4. How many reservations were made for the year 2017

SELECT

   COUNT(*) Total_reservations_in_2017

FROM

   hotelres

WHERE

   YEAR(arrival_date) = 2017;

-- 5. What is the most commonly booked room type?

SELECT

   room_type_reserved, COUNT(*) commonly_booked_room

FROM

   hotelres

GROUP BY room_type_reserved

```
ORDER BY commonly_booked_room DESC

LIMIT 1;
```

-- 6. How many reservations fall on a weekend (no_of_weekend_nights > 0)?

```
SELECT

    COUNT(*) weekend_reservations

FROM

    hotelres

WHERE

    no_of_weekend_nights > 0;
```

-- 7. What is the highest and lowest lead time for reservations?

```
SELECT

    MAX(lead_time) AS Highest_lead_time,

    MIN(lead_time) AS Lowest_lead_time

FROM

    hotelres;
```

-- 8. What is the most common market segment type for reservations?

```
SELECT

    market_segment_type,

    COUNT(*) AS most_common_market_segment_type

FROM

    hotelres
```

GROUP BY market_segment_type

ORDER BY most_common_market_segment_type DESC

LIMIT 1;

-- 9. How many reservations have a booking status of "Confirmed"/"Not_Canceled"?

SELECT

   COUNT(*) AS booking_confirmed

FROM

   hotelres

WHERE

   booking_status = 'Not_Canceled';

-- 10. What is the total number of adults and children across all reservations?

SELECT

   SUM(no_of_adults) Total_adults,

   SUM(no_of_children) Total_children

FROM

   hotelres;

-- 11. What is the average number of weekend nights for reservations involving children?

SELECT

   AVG(no_of_weekend_nights) AS 'average weekend nights'

FROM

   hotelres

WHERE

```
    no_of_children > 0;
```

-- 12. How many reservations were made in each month of the year?

```
SELECT DISTINCT
    MONTH(arrival_date) AS months,
    COUNT(*) reservation_per_months
FROM
    hotelres
GROUP BY months
ORDER BY months;
```

-- 13. What is the average number of nights (both weekend and weekday)
-- spent by guests for each room type?

```
SELECT DISTINCT
    room_type_reserved room_type,
    AVG(no_of_weekend_nights) AS weekends,
    AVG(no_of_weekend_nights) AS weekdays,
    AVG(no_of_weekend_nights + no_of_weekend_nights) AS average_nights_of_weekend_weekday
FROM
    hotelres
GROUP BY room_type;
```

-- 14. For reservations involving children,
-- what is the most common room type,
-- and what is the average price for that room type?

```sql
SELECT DISTINCT

    room_type_reserved,

    ROUND(AVG(avg_price_per_room), 2) AS average_room_price

FROM

    hotelres

WHERE

    no_of_children > 0

GROUP BY room_type_reserved

ORDER BY average_room_price DESC limit 1;
```

-- 15. Find the market segment type that generates the highest average price per room.

```sql
SELECT DISTINCT

    market_segment_type,

    AVG(avg_price_per_room) AS price_per_room

FROM

    hotelres

GROUP BY market_segment_type

ORDER BY price_per_room DESC

LIMIT 1;
```