**CASE STUDY - 1**

**OYO BUSINESS**

**SQL Query:**

CREATE DATABASE Casestudy;

USE Casestudy;

CREATE TABLE oyo\_sales (

booking\_id INT PRIMARY KEY,

customer\_id INT,

status VARCHAR(20),

check\_in DATE,

check\_out DATE,

no\_of\_rooms INT,

hotel\_id INT,

amount INT,

discount INT,

date\_of\_booking DATE

);

INSERT INTO oyo\_sales VALUES (170, 9197, 'Cancelled', '2022-01-14', '2022-01-15', 1, 757, 3137, 796, '2022-01-01');

INSERT INTO oyo\_sales VALUES (171, 9197, 'Cancelled', '2022-01-16', '2022-01-17', 1, 757, 3137, 663, '2022-01-01');

INSERT INTO oyo\_sales VALUES (583, 11659, 'Stayed', '2022-01-01', '2022-01-02', 2, 16, 6237, 1320, '2022-01-01');

INSERT INTO oyo\_sales VALUES (642, 14499, 'Cancelled', '2022-01-16', '2022-01-18', 10, 346, 59254, 12535, '2022-01-01');

INSERT INTO oyo\_sales VALUES (569, 15037, 'No Show', '2022-01-02', '2022-01-03', 1, 207, 1884, 398, '2022-01-01');

INSERT INTO oyo\_sales VALUES (882, 22257, 'Cancelled', '2022-01-01', '2022-01-02', 1, 800, 3444, 875, '2022-01-01');

INSERT INTO oyo\_sales VALUES (419, 29124, 'Cancelled', '2022-01-02', '2022-01-03', 1, 380, 2144, 453, '2022-01-01');

INSERT INTO oyo\_sales VALUES (436, 33021, 'No Show', '2022-01-01', '2022-01-02', 1, 62, 2252, 476, '2022-01-01');

INSERT INTO oyo\_sales VALUES (889, 65208, 'Stayed', '2022-01-01', '2022-01-02', 1, 117, 5589, 1419, '2022-01-01');

INSERT INTO oyo\_sales VALUES (17, 66762, 'Stayed', '2022-01-07', '2022-01-08', 1, 109, 3509, 743, '2022-01-01');

INSERT INTO oyo\_sales VALUES (153, 77179, 'Stayed', '2022-01-02', '2022-01-06', 1, 106, 11887, 2515, '2022-01-01');

INSERT INTO oyo\_sales VALUES (545, 81709, 'Cancelled', '2022-01-02', '2022-01-03', 1, 449, 2192, 464, '2022-01-01');

INSERT INTO oyo\_sales VALUES (416, 86098, 'Stayed', '2022-01-01', '2022-01-02', 1, 579, 2599, 550, '2022-01-01');

INSERT INTO oyo\_sales VALUES (641, 86311, 'Stayed', '2022-01-01', '2022-01-02', 1, 346, 3199, 677, '2022-01-01');

INSERT INTO oyo\_sales VALUES (491, 102430, 'Cancelled', '2022-01-02', '2022-01-03', 1, 3, 2469, 523, '2022-01-01');

INSERT INTO oyo\_sales VALUES (149, 112913, 'Stayed', '2022-01-29', '2022-02-02', 1, 409, 26255, 5554, '2022-01-01');

INSERT INTO oyo\_sales VALUES (799, 118118, 'Stayed', '2022-01-01', '2022-01-02', 1, 689, 4224, 893, '2022-01-01');

INSERT INTO oyo\_sales VALUES (445, 145486, 'No Show', '2022-01-03', '2022-01-04', 1, 378, 4939, 1045, '2022-01-01');

INSERT INTO oyo\_sales VALUES (798, 159297, 'Cancelled', '2022-01-09', '2022-01-13', 1, 164, 14815, 3134, '2022-01-01');

INSERT INTO oyo\_sales VALUES (895, 166300, 'Stayed', '2022-01-01', '2022-01-02', 1, 501, 5004, 1058, '2022-01-01');

INSERT INTO oyo\_sales VALUES (731, 168983, 'Cancelled', '2022-01-01', '2022-01-02', 1, 417, 2201, 465, '2022-01-01');

INSERT INTO oyo\_sales VALUES (856, 169224, 'Cancelled', '2022-01-08', '2022-01-09', 1, 136, 5654, 1436, '2022-01-01');

INSERT INTO oyo\_sales VALUES (568, 182041, 'No Show', '2022-01-02', '2022-01-03', 1, 207, 1884, 398, '2022-01-01');

INSERT INTO oyo\_sales VALUES (283, 184360, 'Cancelled', '2022-01-02', '2022-01-03', 1, 473, 2989, 759, '2022-01-01');

INSERT INTO oyo\_sales VALUES (519, 189769, 'Stayed', '2022-01-01', '2022-01-02', 1, 420, 2469, 523, '2022-01-01');

INSERT INTO oyo\_sales VALUES (570, 196020, 'Cancelled', '2022-01-01', '2022-01-02', 1, 207, 2339, 495, '2022-01-01');

INSERT INTO oyo\_sales VALUES (624, 1864, 'Stayed', '2022-01-02', '2022-01-03', 1, 653, 2534, 536, '2022-01-02');

INSERT INTO oyo\_sales VALUES (738, 26536, 'Stayed', '2022-01-09', '2022-01-13', 1, 365, 6235, 0, '2022-01-02');

INSERT INTO oyo\_sales VALUES (808, 38803, 'Stayed', '2022-01-05', '2022-01-06', 1, 628, 2597, 550, '2022-01-02');

INSERT INTO oyo\_sales VALUES (859, 44047, 'Stayed', '2022-01-03', '2022-01-07', 1, 804, 17155, 3629, '2022-01-02');

INSERT INTO oyo\_sales VALUES (516, 44356, 'Stayed', '2022-01-02', '2022-01-03', 1, 33, 2079, 440, '2022-01-02');

INSERT INTO oyo\_sales VALUES (657, 45644, 'Stayed', '2022-01-02', '2022-01-04', 1, 50, 4807, 1018, '2022-01-02');

INSERT INTO oyo\_sales VALUES (977, 56694, 'Cancelled', '2022-01-02', '2022-01-03', 1, 777, 2794, 591, '2022-01-02');

INSERT INTO oyo\_sales VALUES (786, 57879, 'Cancelled', '2022-01-03', '2022-01-04', 1, 808, 2794, 710, '2022-01-02');

INSERT INTO oyo\_sales VALUES (83, 68240, 'Stayed', '2022-01-02', '2022-01-03', 1, 245, 2005, 425, '2022-01-02');

INSERT INTO oyo\_sales VALUES (312, 88939, 'Stayed', '2022-01-02', '2022-01-03', 1, 570, 3769, 798, '2022-01-02');

INSERT INTO oyo\_sales VALUES (314, 88939, 'Stayed', '2022-01-03', '2022-01-04', 1, 570, 3509, 891, '2022-01-02');

INSERT INTO oyo\_sales VALUES (704, 106977, 'Cancelled', '2022-01-04', '2022-01-05', 1, 58, 2534, 644, '2022-01-02');

INSERT INTO oyo\_sales VALUES (109, 108129, 'Stayed', '2022-01-02', '2022-01-03', 1, 938, 2469, 523, '2022-01-02');

INSERT INTO oyo\_sales VALUES (846, 120340, 'Stayed', '2022-01-03', '2022-01-04', 1, 330, 6824, 1502, '2022-01-02');

INSERT INTO oyo\_sales VALUES (31, 120371, 'Stayed', '2022-01-02', '2022-01-03', 1, 755, 3184, 809, '2022-01-02');

INSERT INTO oyo\_sales VALUES (809, 121394, 'Stayed', '2022-01-03', '2022-01-05', 1, 628, 3726, 789, '2022-01-02');

INSERT INTO oyo\_sales VALUES (379, 124801, 'Cancelled', '2022-01-02', '2022-01-03', 1, 716, 3379, 858, '2022-01-02');

INSERT INTO oyo\_sales VALUES (434, 126821, 'Stayed', '2022-01-03', '2022-01-04', 2, 62, 5327, 1352, '2022-01-02');

INSERT INTO oyo\_sales VALUES (435, 126821, 'Stayed', '2022-01-03', '2022-01-04', 1, 62, 2664, 677, '2022-01-02');

INSERT INTO oyo\_sales VALUES (391, 130118, 'No Show', '2022-01-15', '2022-01-16', 1, 147, 4029, 853, '2022-01-02');

INSERT INTO oyo\_sales VALUES (433, 136431, 'Stayed', '2022-01-02', '2022-01-03', 1, 62, 2794, 591, '2022-01-02');

INSERT INTO oyo\_sales VALUES (41, 145504, 'Stayed', '2022-01-03', '2022-01-05', 1, 232, 3510, 891, '2022-01-02');

INSERT INTO oyo\_sales VALUES (763, 150171, 'Cancelled', '2022-01-02', '2022-01-03', 1, 655, 3509, 743, '2022-01-02');

INSERT INTO oyo\_sales VALUES (18, 161206, 'Stayed', '2022-01-03', '2022-01-04', 1, 109, 2859, 605, '2022-01-02');

INSERT INTO oyo\_sales VALUES (418, 161755, 'Cancelled', '2022-01-02', '2022-01-03', 1, 380, 1949, 495, '2022-01-02');

CREATE TABLE oyo\_city (

hotel\_id INT PRIMARY KEY,

city VARCHAR(50)

);

INSERT INTO oyo\_city (hotel\_id, city) VALUES

(3, 'Gurgaon'),

(13, 'Gurgaon'),

(16, 'Gurgaon'),

(21, 'Gurgaon'),

(25, 'Delhi'),

(29, 'Gurgaon'),

(31, 'Delhi'),

(33, 'Gurgaon'),

(37, 'Gurgaon'),

(44, 'Noida'),

(45, 'Delhi'),

(48, 'Delhi'),

(49, 'Delhi'),

(50, 'Gurgaon'),

(56, 'Bangalore'),

(58, 'Gurgaon'),

(59, 'Noida'),

(62, 'Delhi'),

(68, 'Mumbai'),

(69, 'Noida'),

(73, 'Delhi'),

(74, 'Gurgaon'),

(77, 'Gurgaon'),

(81, 'Delhi'),

(83, 'Bangalore'),

(84, 'Bangalore'),

(86, 'Bangalore'),

(88, 'Bangalore'),

(89, 'Delhi'),

(91, 'Delhi'),

(92, 'Delhi'),

(93, 'Delhi'),

(96, 'Mumbai'),

(99, 'Delhi'),

(106, 'Bangalore'),

(107, 'Bangalore'),

(109, 'Bangalore'),

(111, 'Mumbai'),

(114, 'Delhi'),

(116, 'Gurgaon'),

(117, 'Mumbai'),

(123, 'Jaipur'),

(124, 'Jaipur'),

(128, 'Bangalore'),

(129, 'Delhi'),

(130, 'Delhi'),

(131, 'Gurgaon'),

(132, 'Delhi'),

(135, 'Delhi'),

(136, 'Mumbai'),

(139, 'Jaipur');

SELECT \* FROM oyo\_sales;

SELECT \* FROM oyo\_city;

**-- 1. Find the - average room rates of different cities**

SELECT

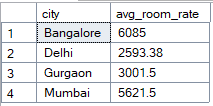
c.city,

ROUND(AVG(CAST(s.amount AS FLOAT) / NULLIF(s.no\_of\_rooms, 0)), 2) AS avg\_room\_rate

FROM oyo\_sales AS s

JOIN oyo\_city AS c ON s.hotel\_id = c.hotel\_id

GROUP BY c.city;



**-- 2. Find the - No of bookings of different cities in Jan Feb Mar Months.**

SELECT

c.city,

DATENAME(MONTH, s.date\_of\_booking) AS booking\_month,

COUNT(\*) AS no\_of\_bookings

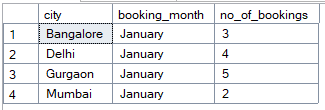
FROM oyo\_sales AS s

JOIN oyo\_city AS c ON s.hotel\_id = c.hotel\_id

WHERE MONTH(s.date\_of\_booking) IN (1, 2, 3)

GROUP BY c.city, DATENAME(MONTH, s.date\_of\_booking)

ORDER BY c.city, booking\_month;



**-- 3. Write a sql query for the -- Frequency of early bookings prior to check-in the hotel**

SELECT

DATEDIFF(DAY, s.date\_of\_booking, s.check\_in) AS days\_prior,

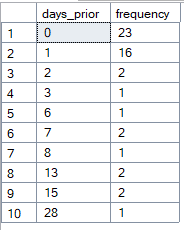
COUNT(\*) AS frequency

FROM oyo\_sales s

WHERE DATEDIFF(DAY, s.date\_of\_booking, s.check\_in) >= 0

GROUP BY DATEDIFF(DAY, s.date\_of\_booking, s.check\_in)

ORDER BY days\_prior;



**-- 4. write the sql query Frequency of bookings of no of rooms in Hotel**

SELECT

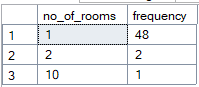
no\_of\_rooms,

COUNT(\*) AS frequency

FROM oyo\_sales

GROUP BY no\_of\_rooms

ORDER BY no\_of\_rooms;



**-- 5. write the sql query-- NEW CUSTOMERS ON JAN MONTH**

SELECT

customer\_id,

MIN(date\_of\_booking) AS first\_booking\_date

FROM oyo\_sales

GROUP BY customer\_id

HAVING MONTH(MIN(date\_of\_booking)) = 1;

