

OYO MANAGEMENT SYSTEM

The OYO logo consists of the word "OYO" in a bold, black, sans-serif font. The letters are stylized with thick, dark outlines and feature large, hollow circular holes in the center of each letter, creating a donut-like appearance.

OYO Management System

An OYO Management System is a database project designed to streamline and automate the operations involved in managing hotels, rooms, customers, staff, bookings, payments, and customer feedback for the OYO hospitality chain. This system ensures efficient storage, retrieval, and analysis of data related to OYO's business operations.

The goal of this project is to demonstrate the implementation of a relational database system for hotel management using MySQL. It involves designing normalized tables, inserting realistic data, performing SQL queries, and analysing key performance indicators such as occupancy rate, customer feedback, etc.

PROJECT AIM

Hotel Management: Add, update, and manage hotel records. Track hotel details such as name, location (city/state), rating, features (e.g., Wi-Fi, pool), and star category.

Room Management: Maintain room inventory across hotels, including room types, prices, availability status, and occupancy capacity.

Customer Management: Store and manage customer records with personal details, contact information, and identity proof for verification purposes.

Staff Management: Maintain information on hotel staff including staff names, roles (e.g., manager, housekeeping), salaries, and hotel assignments.

Booking Management: Record customer bookings with check-in/check-out dates, status (booked, completed, cancelled), and linked room and hotel data.

Payment Processing: Track all payment transactions including booking ID, payment methods (UPI, card, cash), amount, and payment status (paid, pending, refunded).

Feedback Tracking: Collect and analyse customer feedback and ratings for hotels to monitor service quality and customer satisfaction.

OBJECTIVES

Set up the OYO Management System Database:

Design and create normalized tables for hotels, rooms, customers, staff, bookings, payments, and feedback.

CRUD Operations:

Perform Create, Read, Update, and Delete operations across all tables

Advanced SQL Queries:

Develop complex queries to analyse and retrieve specific data.

ER DIAGRAM FOR OYO MANAGEMENT SYSTEM

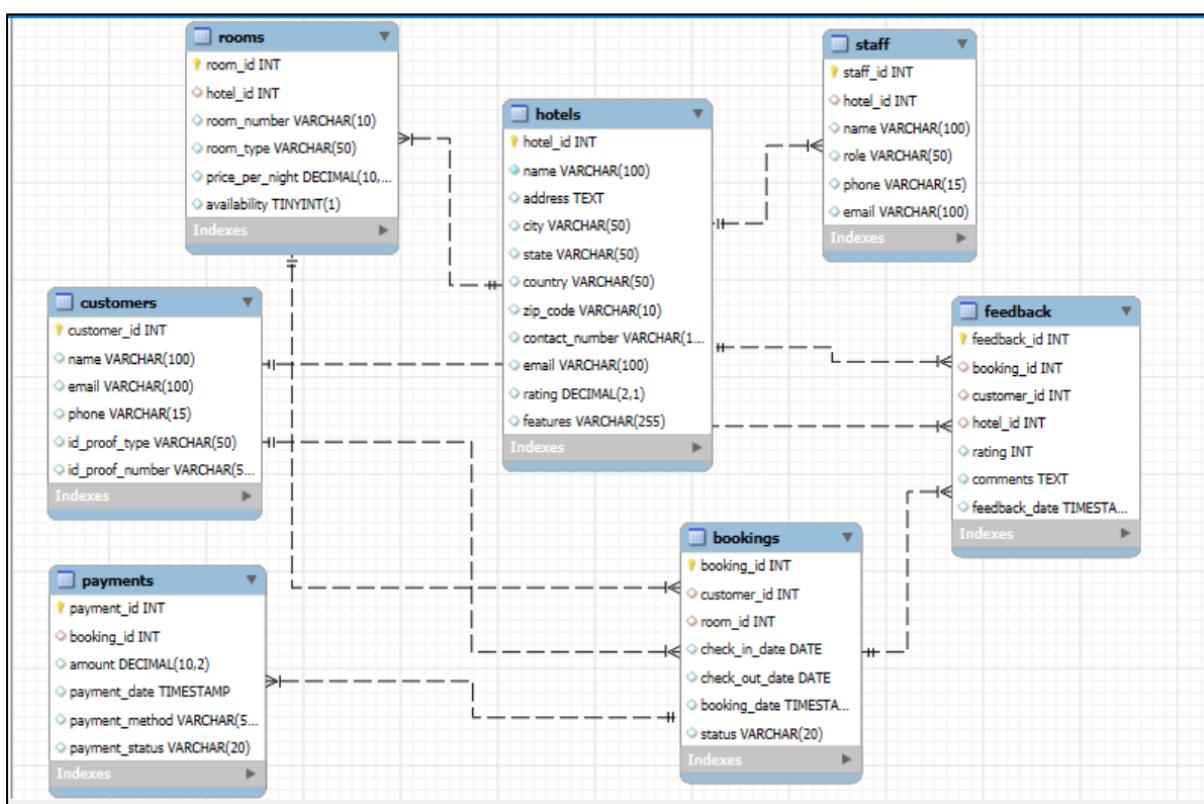


Table Description:

1. BOOKINGS

	Field	Type	Null	Key	Default	Extra
▶	booking_id	int	NO	PRI	NULL	auto_increment
	customer_id	int	YES	MUL	NULL	
	room_id	int	YES	MUL	NULL	
	check_in_date	date	YES		NULL	
	check_out_date	date	YES		NULL	
	booking_date	timestamp	YES		CURRENT_TIMESTAMP	DEFAULT_GENERATED
	status	varchar(20)	YES		Booked	

2. CUTSOMERS

	Field	Type	Null	Key	Default	Extra
▶	customer_id	int	NO	PRI	NULL	auto_increment
	name	varchar(100)	YES		NULL	
	email	varchar(100)	YES		NULL	
	phone	varchar(15)	YES		NULL	
	id_proof_type	varchar(50)	YES		NULL	
	id_proof_number	varchar(50)	YES		NULL	

3. FEEDBACK

	Field	Type	Null	Key	Default	Extra
▶	feedback_id	int	NO	PRI	NULL	auto_increment
	booking_id	int	YES	MUL	NULL	
	customer_id	int	YES	MUL	NULL	
	hotel_id	int	YES	MUL	NULL	
	rating	int	YES		NULL	
	comments	text	YES		NULL	
	feedback_date	timestamp	YES		CURRENT_TIMESTAMP	DEFAULT_GENERATED

4. HOTELS

	Field	Type	Null	Key	Default	Extra
▶	hotel_id	int	NO	PRI	NULL	auto_increment
	name	varchar(100)	NO		NULL	
	address	text	YES		NULL	
	city	varchar(50)	YES		NULL	
	state	varchar(50)	YES		NULL	
	country	varchar(50)	YES		NULL	
	zip_code	varchar(10)	YES	YES	NULL	
	contact_number	varchar(15)	YES		NULL	
	email	varchar(100)	YES		NULL	
	rating	decimal(2,1)	YES		NULL	
	features	varchar(255)	YES		NULL	

5. PAYMENTS

	Field	Type	Null	Key	Default	Extra
▶	payment_id	int	NO	PRI	NULL	auto_increment
	booking_id	int	YES	MUL	NULL	
	amount	decimal(10,2)	YES		NULL	
	payment_date	timestamp	YES		CURRENT_TIMESTAMP	DEFAULT_GENERATED
	payment_method	varchar(50)	YES		NULL	
	payment_status	varchar(20)	YES		NULL	

6. ROOMS

	Field	Type	Null	Key	Default	Extra
▶	room_id	int	NO	PRI	NULL	auto_increment
	hotel_id	int	YES	MUL	NULL	
	room_number	varchar(10)	YES		NULL	
	room_type	varchar(50)	YES		NULL	
	price_per_night	decimal(10,2)	YES		NULL	
	availability	tinyint(1)	YES		1	

7. STAFF

	Field	Type	Null	Key	Default	Extra
▶	staff_id	int	NO	PRI	NULL	auto_increment
	hotel_id	int	YES	MUL	NULL	
	name	varchar(100)	YES		NULL	
	role	varchar(50)	YES		NULL	
	phone	varchar(15)	YES		NULL	
	email	varchar(100)	YES		NULL	

CREATING DATABASE:

CREATE DATABASE: OYO_MANAGEMENT_SYSTEM

USE: OYO_MANAGEMENT_SYSTEM

Table Creation & Insertion Commands:

1) CREATE TABLE Hotels:

```
CREATE TABLE Hotels (
    hotel_id INT PRIMARY KEY AUTO_INCREMENT,
    name VARCHAR(100) NOT NULL,
    address TEXT,
    city VARCHAR(50),
    state VARCHAR(50),
    country VARCHAR(50),
    zip_code VARCHAR(10),
    contact_number VARCHAR(15),
    email VARCHAR(100),
    rating DECIMAL(2, 1));
```

Inserting into values Hotel:

INSERT INTO Hotels (name, address, city, state, country, zip code, contact number, email, rating)

VALUES

```
(1,'As Hotel', '8103 Jacob Common, East Gabrielaview, SC 74237', 'West Michaeltown', 'Maharashtra',
'India', '22334', '0656161001', 'hernandezkristin@gmail.com', 4.2),
(2,'Commercial Hotel', '8229 Benjamin Springs Suite 885, North Kyle, DC 56378', 'Port David', 'Goa',
'India', '33995', '1265553636', 'brownrebecca@yahoo.com', 4.8),
(3,'Stay Hotel', '74745 Sparks Shoals Apt. 835, Stacymouth, WI 89476', 'New Steven', 'J&K', 'India',
'04641', '6766520345', 'ashleyellis@hotmail.com', 4.1),
(4,'Wave Inn', '4714 Michael Course, South Theresa, AZ 06754', 'Lake Dana', 'J&K', 'India', '31278',
'5639871230', 'josephporter@taylor-thomas.com', 3.7),
(5,'Cozy Corner', '02747 Michael Haven Suite 231, North Michaelberg, MT 61499', 'South Daniel',
'Goa', 'India', '59340', '9988776655', 'connie31@gmail.com', 3.6),
(6,'Golden Nest', '53798 Amy Valley Suite 897, Michaelville, OK 41535', 'East Bradley', 'Uttarakhand',
'India', '16463', '7771234567', 'jessica22@gmail.com', 4.0),
(7,'Royal Stay', '800 Brian River, North Stacyburgh, OR 20477', 'Lake Nathaniel', 'Sikkim', 'India',
'98351', '9093341122', 'freemanjames@gmail.com', 4.6),
```

	hotel_id	name	address	city	state	country	zip_code	contact_number	email	rating
▶	1	As Hotel	8103 Jacob Common, East Gabrielview, SC 74...	West Michaeltown	Maharashtra	India	22334	0656161001	hernandezkristin@gmail.com	4.2
	2	Commercial Hotel	8229 Benjamin Springs Suite 885, North Kyle, D...	Port David	Goa	India	33995	1265553636	brownrebecca@yahoo.com	4.8
	3	Stay Hotel	74745 Sparks Shoals Apt. 835, Stacymouth, WI...	New Steven	J&K	India	04641	6766520345	ashleyellis@hotmail.com	4.1
	4	Wave Inn	4714 Michael Course, South Theresa, AZ 06754	Lake Dana	J&K	India	31278	5639871230	josephporter@taylor-thomas.com	3.7
	5	Cozy Corner	02747 Michael Haven Suite 231, North Michaelb...	South Daniel	Goa	India	59340	9988776655	connie31@gmail.com	3.6
	6	Golden Nest	53798 Amy Valley Suite 897, Michaelville, OK 41...	East Bradley	Uttarakhand	India	16463	7771234567	jessica22@gmail.com	4.0
	7	Royal Stay	800 Brian River, North Stacyburgh, OR 20477	Lake Nathaniel	Sikkim	India	98351	9093341122	freemanjames@gmail.com	4.6
	8	Cloud Nine Hotel	17357 Gonzalez Fields, South Elizabeth, IL 42989	Davidmouth	J&K	India	55431	8975671201	gstevens@williams.com	4.3
	9	Moonlight Resort	5616 Thomas Fields, Port Robert, KS 78152	Kimberg	Goa	India	65321	7788991122	linda94@yahoo.com	4.0
	10	The Oasis	540 Johnson Grove, East Benjamin, TX 16445	Amandaville	Sikkim	India	42901	9887766554	jmartin@flores.org	3.9
	11	Horizon Suites	7021 Roberts Mount, East Zachary, NH 91524	Lake Tonya	Assam	India	87154	9765432188	kgreen@yahoo.com	4.7
	12	Urban Retreat	497 Hernandez Estates, West Christine, AR 23...	East Monica	Bihar	India	20384	9001122334	gregory96@gmail.com	4.5
	13	Comfort Inn	1102 Lori Village, West Teresa, WY 11840	South Daniel	Kerala	India	78542	9092233445	harrisnina@gmail.com	4.2
	14	Vista Lodge	8250 Jason Summit, New Jacqueline, SD 97208	Lake Adamtown	Assam	India	65029	7890123456	dennismichael@gmail.com	4.3
	15	Nature Nest	9513 Erica Gateway, Michaelchester, RI 83673	New Donaldboro...	Chandigarh	India	49371	9887766433	petersheila@hotmail.com	4.1
	16	Tranquil Stay	2541 Cheryl Squares Apt. 980, East Amandasid...	North Jerry	Kerala	India	56289	7878787878	nealpaul@gmail.com	3.8
	17	Elite Residency	8019 Jeremy Passage, Port Crystal, VT 07189	North Vincent	Uttarakhand	India	98765	9988776655	blakeguy@scott.com	4.9
	18	Palm Grove	262 Amanda Hills, South Bradview, CO 25631	Port Tammy	Chandigarh	India	84390	9898989898	andrearodriquez@chavez.com	4.0

2) CREATING TABLE Rooms:

```
CREATE TABLE Rooms (
    room_id INT PRIMARY KEY AUTO_INCREMENT,
    hotel_id INT,
    room_number VARCHAR(10),
    room_type VARCHAR(50), -- e.g., Single, Double, Deluxe
    price_per_night DECIMAL(10, 2),
    availability BOOLEAN DEFAULT TRUE,
    FOREIGN KEY (hotel_id) REFERENCES Hotels(hotel_id));
```

INSERTING INTO Rooms VALUES

```
INSERT INTO Rooms (hotel_id, room_number, room_type, price_per_night, availability) VALUES
(1, '101', 'Deluxe', 2599.99, TRUE),
(1, '102', 'Standard', 1799.50, TRUE),
(2, '201', 'Suite', 3500.00, FALSE),
(2, '202', 'Standard', 1900.75, TRUE),
(3, '301', 'Single', 1200.00, TRUE),
(3, '302', 'Double', 2100.00, FALSE),
(4, '401', 'Deluxe', 2500.00, TRUE),
(4, '402', 'Suite', 3700.00, TRUE),
(5, '501', 'Standard', 1850.00, TRUE),
(5, '502', 'Single', 1300.00, TRUE),
(6, '601', 'Double', 2250.00, FALSE),
```

	room_id	hotel_id	room_number	room_type	price_per_night	availability
▶	1	1	101	Deluxe	2599.99	1
	2	1	102	Standard	1799.50	1
	3	2	201	Suite	3500.00	0
	4	2	202	Standard	1900.75	1
	5	3	301	Single	1200.00	1
	6	3	302	Double	2100.00	0
	7	4	401	Deluxe	2500.00	1
	8	4	402	Suite	3700.00	1
	9	5	501	Standard	1850.00	1
	10	5	502	Single	1300.00	1
	11	6	601	Double	2250.00	0
	12	6	602	Suite	3400.00	1
	13	7	701	Deluxe	2750.00	1
	14	7	702	Standard	1950.00	1
	15	8	801	Double	2150.00	0
	16	8	802	Single	1400.00	1
	17	9	901	Suite	3600.00	1
	18	9	902	Deluxe	2550.00	1
	19	10	1001	Standard	1800.00	1

3) CREATING TABLE Customers:

```
CREATE TABLE Customers (
    customer_id INT PRIMARY KEY AUTO_INCREMENT,
    name VARCHAR(100),
    email VARCHAR(100),
    phone VARCHAR(15),
    id_proof_type VARCHAR(50), -- e.g., Aadhar, Passport
    id_proof_number VARCHAR(50));
```

INSERTING INTO Customers VALUES:

```
INSERT INTO Customers (name, email, phone, id_proof_type, id_proof_number) VALUES
('Ravi Sharma', 'ravi.sharma@gmail.com', '9876543210', 'Aadhar', '1234-5678-9012'),
('Priya Mehta', 'priya.mehta@yahoo.com', '8765432109', 'PAN', 'ABCDE1234F'),
('Aman Gupta', 'aman.gupta@outlook.com', '7654321098', 'Passport', 'P1234567'),
('Sneha Rao', 'sneha.rao@gmail.com', '6543210987', 'Voter ID', 'XYZ123456'),
('Karan Kapoor', 'karan.kapoor@live.com', '5432109876', 'Aadhar', '2345-6789-0123'),
('Divya Jain', 'divya.jain@gmail.com', '9123456780', 'PAN', 'AAPL1234C'),
('Nikhil Arora', 'nikhil.arora@yahoo.com', '8899776655', 'Passport', 'N9876543'),
('Simran Kaur', 'simran.kaur@gmail.com', '9988776655', 'Voter ID', 'VOT1234567'),
('Manish Yadav', 'manish.yadav@outlook.com', '9988112233', 'Aadhar', '7890-1234-5678'),
('Aarti Verma', 'aarti.verma@gmail.com', '7776665554', 'PAN', 'PLMNB1234K'),
```

	customer_id	name	email	phone	id_proof_type	id_proof_number
▶	1	Ravi Sharma	ravi.sharma@gmail.com	9876543210	Aadhar	1234-5678-9012
	2	Priya Mehta	priya.mehta@yahoo.com	8765432109	PAN	ABCDE1234F
	3	Aman Gupta	aman.gupta@outlook.com	7654321098	Passport	P1234567
	4	Sneha Rao	sneha.rao@gmail.com	6543210987	Voter ID	XYZ123456
	5	Karan Kapoor	karan.kapoor@live.com	5432109876	Aadhar	2345-6789-0123
	6	Divya Jain	divya.jain@gmail.com	9123456780	PAN	AAPL1234C
	7	Nikhil Arora	nikhil.arora@yahoo.com	8899776655	Passport	N9876543
	8	Simran Kaur	simran.kaur@gmail.com	9988776655	Voter ID	VOT1234567
	9	Manish Yadav	manish.yadav@outlook.com	9988112233	Aadhar	7890-1234-5678
	10	Aarti Verma	aarti.verma@gmail.com	7776665554	PAN	PLMNB1234K
	11	Rajeev Menon	rajeev.menon@gmail.com	6667778889	Passport	R6543210
	12	Neha Sinha	neha.sinha@yahoo.com	9556677880	Voter ID	VOT7654321
	13	Rohit Kumar	rohit.kumar@live.com	8123456789	Aadhar	1234-9876-5432
	14	Meena Joshi	meena.joshi@gmail.com	7000123456	PAN	XYZPQ1234R
	15	Aditya Rao	aditya.rao@yahoo.com	9000112233	Passport	AD1234567
	16	Nisha Kumari	nisha.kumari@gmail.com	9112233445	Aadhar	4567-8901-2345
	17	Vivek Singh	vivek.singh@yahoo.com	8123456781	PAN	BNZPS1234M
	18	Ritika Yadav	ritika.yadav@outlook.com	9876543200	Passport	M1234567
	19	Sahil Kapoor	sahil.kapoor@live.com	9988771122	Voter ID	ID1234567

4) CREATEING TABLE Bookings:

```
CREATE TABLE Bookings (
    booking_id INT PRIMARY KEY AUTO_INCREMENT,
    customer_id INT,
    room_id INT,
    check_in_date DATE,
    check_out_date DATE,
    booking_date TIMESTAMP DEFAULT CURRENT_TIMESTAMP,
    status VARCHAR(20) DEFAULT 'Booked', -- Booked, Cancelled, Completed
    FOREIGN KEY (customer_id) REFERENCES Customers(customer_id),
    FOREIGN KEY (room_id) REFERENCES Rooms(room_id));
```

INSERTING INTO Bookings VALUES

INSERT INTO Bookings (customer_id, room_id, check_in_date, check_out_date, status) VALUES

```
(1, 1, '2025-07-01', '2025-07-03', 'Completed'),
(2, 2, '2025-07-04', '2025-07-06', 'Booked'),
(3, 3, '2025-07-02', '2025-07-05', 'Cancelled'),
(4, 4, '2025-07-01', '2025-07-02', 'Completed'),
(5, 5, '2025-07-03', '2025-07-05', 'Booked'),
(6, 6, '2025-07-06', '2025-07-08', 'Completed'),
(7, 7, '2025-07-07', '2025-07-09', 'Booked'),
(8, 8, '2025-07-05', '2025-07-06', 'Cancelled'),
(9, 9, '2025-07-04', '2025-07-05', 'Completed'),
(10, 10, '2025-07-06', '2025-07-08', 'Completed'),
(11, 11, '2025-07-07', '2025-07-09', 'Booked'),
(12, 12, '2025-07-02', '2025-07-03', 'Completed'),
```

	booking_id	customer_id	room_id	check_in_date	check_out_date	booking_date	status
▶	1	1	1	2025-07-01	2025-07-03	2025-07-06 16:28:16	Completed
	2	2	2	2025-07-04	2025-07-06	2025-07-06 16:28:16	Booked
	3	3	3	2025-07-02	2025-07-05	2025-07-06 16:28:16	Cancelled
	4	4	4	2025-07-01	2025-07-02	2025-07-06 16:28:16	Completed
	5	5	5	2025-07-03	2025-07-05	2025-07-06 16:28:16	Booked
	6	6	6	2025-07-06	2025-07-08	2025-07-06 16:28:16	Completed
	7	7	7	2025-07-07	2025-07-09	2025-07-06 16:28:16	Booked
	8	8	8	2025-07-05	2025-07-06	2025-07-06 16:28:16	Cancelled
	9	9	9	2025-07-04	2025-07-05	2025-07-06 16:28:16	Completed
	10	10	10	2025-07-06	2025-07-08	2025-07-06 16:28:16	Completed
	11	11	11	2025-07-07	2025-07-09	2025-07-06 16:28:16	Booked
	12	12	12	2025-07-02	2025-07-03	2025-07-06 16:28:16	Completed
	13	13	13	2025-07-05	2025-07-06	2025-07-06 16:28:16	Cancelled
	14	14	14	2025-07-08	2025-07-10	2025-07-06 16:28:16	Booked
	15	15	15	2025-07-09	2025-07-11	2025-07-06 16:28:16	Completed
	16	16	1	2025-07-10	2025-07-12	2025-07-08 01:11:54	Booked
	17	17	2	2025-07-09	2025-07-11	2025-07-08 01:11:54	Completed
	18	18	3	2025-07-08	2025-07-09	2025-07-08 01:11:54	Cancelled
	19	19	4	2025-07-07	2025-07-08	2025-07-08 01:11:54	Booked

5) CREATEING TABLE Payments:

```
CREATE TABLE Payments (
    payment_id INT PRIMARY KEY AUTO_INCREMENT,
    booking_id INT,
    amount DECIMAL(10, 2),
    payment_date TIMESTAMP DEFAULT CURRENT_TIMESTAMP,
    payment_method VARCHAR(50), -- e.g., Card, UPI, Cash
    payment_status VARCHAR(20), -- e.g., Paid, Failed, Pending
    FOREIGN KEY (booking_id) REFERENCES Bookings(booking_id));
```

INSERTING INTO Payments VALUES

```
INSERT INTO Payments (booking_id, amount, payment_method, payment_status) VALUES
(1, 5200.00, 'UPI', 'Paid'),
(2, 3600.00, 'Card', 'Pending'),
(3, 4800.00, 'Cash', 'Refunded'),
(4, 1200.00, 'UPI', 'Paid'),
(5, 3000.00, 'Card', 'Paid'),
(6, 4000.00, 'Cash', 'Paid'),
(7, 4200.00, 'UPI', 'Paid'),
(8, 1500.00, 'Card', 'Refunded'),
(9, 1900.00, 'UPI', 'Paid'),
(10, 3500.00, 'Cash', 'Paid'),
(11, 3300.00, 'UPI', 'Pending'),
```

	payment_id	booking_id	amount	payment_date	payment_method	payment_status
▶	1	1	5200.00	2025-07-06 16:28:18	UPI	Paid
	2	2	3600.00	2025-07-06 16:28:18	Card	Pending
	3	3	4800.00	2025-07-06 16:28:18	Cash	Refunded
	4	4	12 1200.00	025-07-06 16:28:18	UPI	Paid
	5	5	3000.00	2025-07-06 16:28:18	Card	Paid
	6	6	4000.00	2025-07-06 16:28:18	Cash	Paid
	7	7	4200.00	2025-07-06 16:28:18	UPI	Paid
	8	8	1500.00	2025-07-06 16:28:18	Card	Refunded
	9	9	1900.00	2025-07-06 16:28:18	UPI	Paid
	10	10	3500.00	2025-07-06 16:28:18	Cash	Paid
	11	11	3300.00	2025-07-06 16:28:18	UPI	Pending
	12	12	1700.00	2025-07-06 16:28:18	Card	Paid
	13	13	2800.00	2025-07-06 16:28:18	UPI	Refunded
	14	14	4500.00	2025-07-06 16:28:18	Cash	Paid
	15	15	2100.00	2025-07-06 16:28:18	Card	Paid
	16	16	4600.00	2025-07-08 01:14:02	UPI	Paid
	17	17	3500.00	2025-07-08 01:14:02	Card	Paid
	18	18	2800.00	2025-07-08 01:14:02	Cash	Refunded
	19	19	3000.00	2025-07-08 01:14:02	UPI	Paid

6) CREATEING TABLE Staff:

```
CREATE TABLE Staff (
    staff_id INT PRIMARY KEY AUTO_INCREMENT,
    hotel_id INT,
    name VARCHAR(100),
    role VARCHAR(50), -- e.g., Manager, Cleaner, Receptionist
    phone VARCHAR(15),
    email VARCHAR(100),
    FOREIGN KEY (hotel_id) REFERENCES Hotels(hotel_id));
```

INSERT INTO Staff VALUES

```
INSERT INTO Staff (hotel_id, name, role, phone, email) VALUES
(1, 'Suresh Patel', 'Manager', '9876543210', 'suresh.patel@oyo.com'),
(2, 'Aarti Singh', 'Receptionist', '8765432198', 'aarti.singh@oyo.com'),
(3, 'Rohan Das', 'Cleaner', '7654321987', 'rohan.das@oyo.com'),
(4, 'Priyanka Verma', 'Security', '6543219876', 'priyanka.verma@oyo.com'),
(5, 'Neeraj Pandey', 'Manager', '9432109876', 'neeraj.pandey@oyo.com'),
(6, 'Ankita Shah', 'Receptionist', '9123456781', 'ankita.shah@oyo.com'),
(7, 'Deepak Rawat', 'Cleaner', '8899776654', 'deepak.rawat@oyo.com'),
(8, 'Ritika Malhotra', 'Security', '9988776655', 'ritika.malhotra@oyo.com'),
(9, 'Vikram Rathi', 'Manager', '9988112233', 'vikram.rathi@oyo.com'),
(10, 'Tanvi Sharma', 'Receptionist', '7776665554', 'tanvi.sharma@oyo.com'),
(11, 'Pooja Iyer', 'Chef', '6667778889', 'pooja.iyer@oyo.com'),
```

	staff_id	hotel_id	name	role	phone	email
▶	1	1	Suresh Patel	Manager	9876543210	suresh.patel@oyo.com
	2	2	Aarti Singh	Receptionist	8765432198	aarti.singh@oyo.com
	3	3	Rohan Das	Cleaner	7654321987	rohan.das@oyo.com
	4	4	Priyanka Verma	Security	6543219876	priyanka.verma@oyo.com
	5	5	Neeraj Pandey	Manager	9432109876	neeraj.pandey@oyo.com
	6	6	Ankita Shah	Receptionist	9123456781	ankita.shah@oyo.com
	7	7	Deepak Rawat	Cleaner	8899776654	deepak.rawat@oyo.com
	8	8	Ritika Malhotra	Security	9988776655	ritika.malhotra@oyo.com
	9	9	Vikram Rathi	Manager	9988112233	vikram.rathi@oyo.com
	10	10	Tanvi Sharma	Receptionist	7776665554	tanvi.sharma@oyo.com
	11	11	Pooja Iyer	Chef	6667778889	pooja.iyer@oyo.com
	12	12	Kunal Joshi	Security	9556677880	kunal.joshi@oyo.com
	13	13	Swati Chauhan	Manager	8123456789	swati.chauhan@oyo.com
	14	14	Manoj Mehra	Receptionist	7000123456	manoj.mehra@oyo.com
*	15	15	Divya Kulkarni	Chef	9000112233	divya.kulkarni@oyo.com
*	NULL	NULL	NULL	NULL	NULL	NULL

7) CREATING TABLE Feedback:

```
CREATE TABLE Feedback (
    feedback_id INT PRIMARY KEY AUTO_INCREMENT,
    booking_id INT,
    customer_id INT,
    hotel_id INT,
    rating INT CHECK (rating BETWEEN 1 AND 5), -- Star rating: 1 to 5
    comments TEXT,
    feedback_date TIMESTAMP DEFAULT CURRENT_TIMESTAMP,
    FOREIGN KEY (booking_id) REFERENCES Bookings(booking_id),
    FOREIGN KEY (customer_id) REFERENCES Customers(customer_id),
    FOREIGN KEY (hotel_id) REFERENCES Hotels(hotel_id));
```

INSERT INTO Feedback VALUES

```
INSERT INTO Feedback (booking_id, customer_id, hotel_id, rating, comments) VALUES
(1, 1, 1, 5, 'Excellent stay and service.'),
(2, 2, 1, 4, 'Good room, could be cleaner.'),
(3, 3, 2, 3, 'Decent experience, average service.'),
(4, 4, 2, 4, 'Nice and quick check-in.'),
(5, 5, 3, 5, 'Wonderful hospitality!'),
(6, 6, 3, 2, 'Not satisfied with the cleanliness.'),
(7, 7, 4, 4, 'Good location and room.'),
(8, 8, 4, 3, 'Okay, staff was slow.'),
```

	feedback_id	booking_id	customer_id	hotel_id	rating	comments	feedback_date
▶	1	1	1	1	5	Excellent stay and service.	2025-07-06 16:28:38
	2	2	2	1	4	Good room, could be cleaner.	2025-07-06 16:28:38
	3	3	3	2	3	Decent experience, average service.	2025-07-06 16:28:38
	4	4	4	2	4	Nice and quick check-in.	2025-07-06 16:28:38
	5	5	5	3	5	Wonderful hospitality!	2025-07-06 16:28:38
	6	6	6	3	2	Not satisfied with the cleanliness.	2025-07-06 16:28:38
	7	7	7	4	4	Good location and room.	2025-07-06 16:28:38
	8	8	8	4	3	Okay, staff was slow.	2025-07-06 16:28:38
	9	9	9	5	5	Perfect family hotel.	2025-07-06 16:28:38
	10	10	10	5	4	Had a good time.	2025-07-06 16:28:38
	11	11	11	6	3	Average facilities.	2025-07-06 16:28:38
	12	12	12	6	5	Loved the suite and service.	2025-07-06 16:28:38
	13	13	13	7	1	Too noisy and poor cleanliness.	2025-07-06 16:28:38
	14	14	14	7	4	Peaceful stay, clean room.	2025-07-06 16:28:38
	15	15	15	8	5	Great ambiance and food.	2025-07-06 16:28:38
	16	16	16	1	4	Nice service and clean rooms.	2025-07-08 01:14:21
	17	17	17	1	5	Loved the location and staff behavior.	2025-07-08 01:14:21
	18	18	18	2	2	Check-in was delayed.	2025-07-08 01:14:21
	19	19	19	2	3	Average experience, room could be ...	2025-07-08 01:14:21

BASIC QUESTIONS

1. Add an extra column called features to the Hotels table.

ALTER TABLE Hotels

ADD COLUMN features VARCHAR(255);

UPDATE Hotels SET features = 'Swimming Pool, Free Wi-Fi, 24/7 Helpdesk' WHERE hotel_id = 1;

UPDATE Hotels SET features = 'Bar, Swimming Pool, Conference Room' WHERE hotel_id = 2;

UPDATE Hotels SET features = 'Spa, 24/7 Helpdesk, Parking' WHERE hotel_id = 3;

OUTPUT:

hotel_id	name	address	city	state	country	zip_code	contact_number	email	rating	features
1	As Hotel	8103 Jacob Common, East Gabrielview, SC 74...	West Michaeltown	Maharashtra	India	22334	0656161001	hernandezkristin@gmail.com	4.2	Swimming Pool, Free Wi-Fi, 24/7 Helpdesk
2	Commercial Hotel	8229 Benjamin Springs Suite 885, North Kyle, D...	Port David	Goa	India	33995	1265553636	brownrebecca@yahoo.com	4.8	Bar, Swimming Pool, Conference Room
3	Stay Hotel	74745 Sparke Shoals Apt. 835, Stacymouth, WI...	New Steven	J&K	India	04641	6766520345	ashleyellis@hotmail.com	4.1	Spa, 24/7 Helpdesk, Parking
4	Wave Inn	4714 Michael Course, South Theresa, AZ 06754	Lake Dana	J&K	India	31278	5639871230	josephporter@taylor-thomas.com	3.7	Air Conditioning, Pet Friendly, Gym
5	Cozy Corner	02747 Michael Haven Suite 231, North Michaelbo...	South Daniel	Goa	India	59340	9988776655	connie31@gmail.com	3.6	Parking, Free Wi-Fi, Business Class
6	Golden Nest	53798 Amy Valley Suite 897, Michaelville, OK 41...	East Bradley	Uttarakhand	India	16463	7771234567	jessica22@gmail.com	4.0	Restaurant, Swimming Pool, Breakfast
7	Royal Stay	800 Brian River, North Stacyburgh, OR 20477	Lake Nathaniel	Sikkim	India	98351	9093341122	freemanjames@gmail.com	4.6	Free Wi-Fi, Bar, Swimming Pool
8	Cloud Nine Hotel	17357 Gonzalez Fields, South Elizabeth, IL 42989	Davidmouth	J&K	India	55431	8975671201	gstevens@williams.com	4.3	Laundry, Swimming Pool, Room Service
9	Moonlight Resort	5616 Thomas Fields, Port Robert, KS 78152	Kimberg	Goa	India	65321	7788991122	linda94@yahoo.com	4.0	Bar, Airport Shuttle, Laundry
10	The Oasis	540 Johnson Grove, East Benjamin, TX 16445	Amandaville	Sikkim	India	42901	9887766554	jmartin@flores.org	3.9	Free Wi-Fi, Airport Shuttle, Conference Room
11	Horizon Suites	7021 Roberts Mount, East Zachary, NH 91524	Lake Tonya	Assam	India	87154	9765432188	kgreen@yahoo.com	4.7	Gym, 24/7 Helpdesk, Restaurant

2. How many rooms are available in each hotel?

```
Select hotel_id, count(*) as available_rooms  
from rooms  
where availability=true  
group by hotel_id;
```

OUTPUT:

hotel_id	available_rooms
1	2
2	1
3	1
4	2
5	2
6	1
7	2
8	1
9	2
10	1

3. Which rooms have a price per night greater than ₹2500 and are not available?

```
select count(*)  
from rooms  
where price_per_night > 2500 and availability=false;
```

OUTPUT:

	count(*)
▶	1

4. Show hotels that have swimming pool in features?

```
select*
from hotels
where features like ('%swimming pool%');
```

OUTPUT:

hotel_id	name	address	city	state	country	zip_code	contact_number	email	rating	features
1	As Hotel	8103 Jacob Common, East Gabrielview, SC 74...	West Michaeltown	Maharashtra	India	22334	0656161001	hernandezkristin@gmail.com	4.2	Swimming Pool, Free Wi-Fi, 24/7
2	Commercial Hotel	8229 Benjamin Springs Suite 885, North Kyle, D...	Port David	Goa	India	33995	1265553636	brownrebecca@yahoo.com	4.8	Bar, Swimming Pool, Conference
6	Golden Nest	53798 Amy Valley Suite 897, Michaelville, OK 41...	East Bradley	Uttarakhand	India	16463	7771234567	jessica22@gmail.com	4.0	Restaurant, Swimming Pool, Bar
7	Royal Stay	800 Brian River, North Stacyburgh, OR 20477	Lake Nathaniel	Sikkim	India	98351	9093341122	freemanjames@gmail.com	4.6	Free WiFi, Bar, Swimming Pool
8	Cloud Nine Hotel	17357 Gonzalez Fields, South Elizabeth, IL 42989	Davidmouth	J&K	India	55431	8975671201	gstevens@williams.com	4.3	Laundry, Swimming Pool, Room
14	Vista Lodge	8250 Jason Summit, New Jacqueline, SD 97208	Lake Adamtown	Assam	India	65029	7890123456	dennismichael@gmail.com	4.3	Swimming Pool, Parking, Restau
15	Nature Nest	9513 Erica Gateway, Michaelchester, RI 83673	New Donaldborough	Chandigarh	India	49371	9887766433	petersheila@hotmail.com	4.1	Swimming Pool, Gym, Laundry
18	Palm Grove	262 Amanda Hills, South Bradview, CO 25631	Port Tammy	Chandigarh	India	84390	9898989898	andrearodriguez@chavez.com	4.0	Swimming Pool, Conference Roc
20	The Heritage	43322 Garcia Lights, West Amy, NM 15670	Kimberg	Maharashtra	India	44002	9191919191	kimsteven@hotmail.com	4.1	24/7 Helpdesk, Pet Friendly, Sw
23	Zenith View	55863 Sheila Alley, East Lisa, ID 57824	New Davidport	Rajasthan	India	20943	9494949494	floydheather@gmail.com	4.4	Air Conditioning, Laundry, Swim
24	Grand Palace	541 Lisa Fall Apt. 028, West Nancyland, DE 39258	Robertberg	Karnataka	India	64892	9595959595	hudsonjessica@yahoo.com	4.3	Swimming Pool, Restaurant, Spa

5. Write a query to list all bookings that have cancelled between '2025-07-01' and '2025-07-10'?

```
select *
from bookings
where check_in_date between '2025-27-01' and '2025-07-07' and status='cancelled';
```

OUTPUT:

	booking_id	customer_id	room_id	check_in_date	check_out_date	booking_date	status
▶	3	3	3	2025-07-02	2025-07-05	2025-07-06 16:28:16	Cancelled
	8	8	8	2025-07-05	2025-07-06	2025-07-06 16:28:16	Cancelled
	13	13	13	2025-07-05	2025-07-06	2025-07-06 16:28:16	Cancelled
	22	22	7	2025-07-05	2025-07-06	2025-07-08 01:11:54	Cancelled
*	34	34	19	2025-07-07	2025-07-08	2025-07-08 01:11:54	Cancelled
	NULL	NULL	NULL	NULL	NULL	NULL	NULL

6. Write a query to find the most commonly used payment method and average amount?

```
SELECT payment_method, COUNT(*) AS usage_count, AVG(amount) AS avg_amount
FROM Payments
GROUP BY payment_method
ORDER BY usage_count DESC;
```

OUTPUT:

	payment_method	usage_count	avg_amount
▶	UPI	13	3330.769231
	Card	12	3041.666667
	Cash	10	3940.000000

7. Write a query to find the top 5 hotels with the highest ratings?

```
select *
from hotels
order by rating
limit 5;
```

OUTPUT:

hotel_id	name	address	city	state	country	zip_code	contact_number	email	rating	features
5	Cozy Corner	02747 Michael Haven Suite 231, North Michaelb...	South Daniel	Goa	India	59340	9988776655	connie31@gmail.com	3.6	Parking, Free Wi-Fi, Business Center
4	Wave Inn	4714 Michael Course, South Theresa, AZ 06754	Lake Dana	J&K	India	31278	5639871230	josephporter@taylor-thomas.com	3.7	Air Conditioning, Pet Friendly, Restaurant
16	Tranquil Stay	2541 Cheryl Squares Apt. 980, East Amandasid...	North Jerry	Kerala	India	56289	7878787878	nealpaul@gmail.com	3.8	24/7 Helpdesk, Pet Friendly, Spa
27	Coral Sands	78811 Lisa Fort, East Tanya, OK 43042	West Charles	Kerala	India	21459	9898981234	lindsaymorgan@gmail.com	3.8	24/7 Helpdesk, Swimming Pool, Garden
10	The Oasis	540 Johnson Grove, East Benjamin, TX 16445	Amandaville	Sikkim	India	42901	9887766554	jmartin@flores.org	3.9	Free Wi-Fi, Airport Shuttle, Conference Room
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

8. Write a query to count how many hotels exist in each state, sorted by the highest count?

```
select count(*) as hotel_count,state
from hotels
group by state
order by hotel_count desc;
```

OUTPUT:

	hotel_count	state
▶	4	Goa
	3	J&K
	3	Kerala
	2	Maharashtra
	2	Uttarakhand
	2	Sikkim
	2	Assam
	2	Bihar
	2	Chandigarh
	2	Punjab
	1	Haryana
	1	Rajasthan
	1	Karnataka
	1	Chhattisgarh
	1	Madhya Pra...
	1	Jharkhand

SUB-QUERIES

9. List all hotels whose rating is higher than the average rating?

```
SELECT name, rating  
FROM Hotels  
WHERE rating > (SELECT AVG(rating) FROM Hotels);
```

OUTPUT:

	name	rating
►	Commercial Hotel	4.8
	Royal Stay	4.6
	Cloud Nine Hotel	4.3
	Horizon Suites	4.7
	Urban Retreat	4.5
	Vista Lodge	4.3
	Elite Residency	4.9
	Serenity Stay	4.5
	Alpine Retreat	4.6
	Zenith View	4.4
	Grand Palace	4.3
	Emerald Stay	4.6
	Sunshine Villa	4.7

10. List booking IDs that haven't been paid for yet?

```
SELECT *
FROM Bookings
WHERE room_id NOT IN (SELECT booking_id FROM Payments WHERE payment_status = 'Paid');
```

OUTPUT:

11. Get all room details from hotels rated 4.5 and above?

```
SELECT *
FROM Rooms
WHERE hotel_id IN (
    SELECT hotel_id FROM Hotels WHERE rating >= 4.5);
```

OUTPUT:

	room_id	hotel_id	room_number	room_type	price_per_night	availability
▶	3	2	201	Suite	3500.00	0
	4	2	202	Standard	1900.75	1
	13	7	701	Deluxe	2750.00	1
*	14	7	702	Standard	1950.00	1
	NULL	NULL	NULL	NULL	NULL	NULL

12. Find staff members who work in hotels that have a gym?

```
SELECT name, role
FROM Staff
WHERE hotel_id IN (
    SELECT hotel_id FROM Hotels WHERE features LIKE '%Gym%'
);
```

OUTPUT:

	name	role
▶	Pooja Iyer	Chef
	Swati Chauhan	Manager
	Divya Kulkarni	Chef

13. Show names of hotels that got 5-star feedback from any customer.

```
SELECT name
FROM Hotels
WHERE hotel_id IN (
    SELECT hotel_id FROM Feedback WHERE rating = 5);
```

OUTPUT:

	name
▶	As Hotel
	Stay Hotel
	Cozy Corner
	Golden Nest
	Cloud Nine Hotel
	Wave Inn
	Royal Stay
	The Oasis

14. Get all feedback comments for bookings paid via UPI.

```
SELECT comments
FROM Feedback
WHERE booking_id IN (
    SELECT booking_id FROM Payments WHERE payment_method = 'UPI'
);
```

OUTPUT:

	comments
▶	Excellent stay and service.
	Nice and quick check-in.
	Good location and room.
	Perfect family hotel.
	Average facilities.
	Too noisy and poor cleanliness.
	Nice service and clean rooms.
	Average experience, room could be better.
	Room was fine but no hot water.
	Basic services missing.
	Loved the garden and peaceful environment.
	Everything was perfect!
	AC not working and dirty washroom.

JOINS

15. List all bookings with customer name, hotel name, and check-in/check-out dates.

```
SELECT c.name AS customer_name, h.name AS hotel_name, b.check_in_date,  
b.check_out_date  
FROM Bookings b  
JOIN Customers c ON b.customer_id = c.customer_id  
JOIN Rooms r ON b.room_id = r.room_id  
JOIN Hotels h ON r.hotel_id = h.hotel_id;
```

OUTPUT:

	customer_name	hotel_name	check_in_date	check_out_date
▶	Ravi Sharma	As Hotel	2025-07-01	2025-07-03
	Nisha Kumari	As Hotel	2025-07-10	2025-07-12
	Priya Mehta	As Hotel	2025-07-04	2025-07-06
	Vivek Singh	As Hotel	2025-07-09	2025-07-11
	Aman Gupta	Commercial Hotel	2025-07-02	2025-07-05
	Ritika Yadav	Commercial Hotel	2025-07-08	2025-07-09
	Sneha Rao	Commercial Hotel	2025-07-01	2025-07-02
	Sahil Kapoor	Commercial Hotel	2025-07-07	2025-07-08
	Karan Kapoor	Stay Hotel	2025-07-03	2025-07-05
	Poonam Joshi	Stay Hotel	2025-07-10	2025-07-12
	Divya Jain	Stay Hotel	2025-07-06	2025-07-08
	Amit Rathi	Stay Hotel	2025-07-06	2025-07-07
	Nikhil Arora	Wave Inn	2025-07-07	2025-07-09
	Kriti Bansal	Wave Inn	2025-07-05	2025-07-06
	Simran Kaur	Wave Inn	2025-07-05	2025-07-06
	Raj Meena	Wave Inn	2025-07-11	2025-07-13
	Manish Yadav	Cozy Corner	2025-07-04	2025-07-05
	Megha Sinha	Cozy Corner	2025-07-12	2025-07-14
	Aarti Verma	Cozy Corner	2025-07-06	2025-07-08

16. Show hotel names and average feedback ratings for hotels with more than 2 feedbacks.

```
SELECT h.name AS hotel_name, AVG(f.rating) AS avg_rating  
FROM Feedback f  
JOIN Hotels h ON f.hotel_id = h.hotel_id  
GROUP BY h.hotel_id, h.name  
HAVING COUNT(f.hotel_id) > 2;
```

OUTPUT:

	hotel_name	avg_rating
▶	As Hotel	4.5000
	Commercial Hotel	3.0000
	Stay Hotel	4.0000
	Wave Inn	3.7500
	Cozy Corner	4.0000
	Golden Nest	3.5000
	Royal Stay	2.7500
	Cloud Nine Hotel	4.6667

17. Get the most expensive room booked by each customer.

```
SELECT c.name AS customer_name, MAX(price_per_night) AS max_room_price
FROM Bookings b
JOIN Customers c ON b.customer_id = c.customer_id
JOIN Rooms r ON b.room_id = r.room_id
GROUP BY c.customer_id, c.name;
```

OUTPUT:

	customer_name	max_room_price
▶	Ravi Sharma	2599.99
	Nisha Kumari	2599.99
	Priya Mehta	1799.50
	Vivek Singh	1799.50
	Aman Gupta	3500.00
	Ritika Yadav	3500.00
	Sneha Rao	1900.75
	Sahil Kapoor	1900.75
	Karan Kapoor	1200.00
	Poonam Joshi	1200.00
	Divya Jain	2100.00
	Amit Rathi	2100.00
	Nikhil Arora	2500.00
	Kriti Bansal	2500.00
	Simran Kaur	3700.00
	Raj Meena	3700.00
	Manish Yadav	1850.00

18. List hotel names and total revenue generated per hotel (from paid bookings only).

```
SELECT h.name AS hotel_name, SUM(p.amount) AS total_revenue  
FROM Payments p  
JOIN Bookings b ON p.booking_id = b.booking_id  
JOIN Rooms r ON b.room_id = r.room_id  
JOIN Hotels h ON r.hotel_id = h.hotel_id  
WHERE p.payment_status = 'Paid'  
GROUP BY h.hotel_id, h.name;
```

OUTPUT:

	hotel_name	total_revenue
▶	As Hotel	13300.00
	Commercial Hotel	4200.00
	Stay Hotel	14300.00
	Wave Inn	9400.00
	Cozy Corner	13300.00
	Golden Nest	5100.00
	Royal Stay	8400.00
	Cloud Nine Hotel	10500.00
	Moonlight Resort	7700.00
	The Oasis	3100.00

19. Show feedback for completed bookings only along with customer and hotel names.

```
SELECT c.name AS customer_name, h.name AS hotel_name, f.rating, f.comments  
FROM Feedback f  
JOIN Bookings b ON f.booking_id = b.booking_id  
JOIN Customers c ON f.customer_id = c.customer_id  
JOIN Hotels h ON f.hotel_id = h.hotel_id  
WHERE b.status = 'Completed';
```

OUTPUT:

	customer_name	hotel_name	rating	comments
▶	Ravi Sharma	As Hotel	5	Excellent stay and service.
	Sneha Rao	Commercial Hotel	4	Nice and quick check-in.
	Divya Jain	Stay Hotel	2	Not satisfied with the cleanliness.
	Manish Yadav	Cozy Corner	5	Perfect family hotel.
	Aarti Verma	Cozy Corner	4	Had a good time.
	Neha Sinha	Golden Nest	5	Loved the suite and service.
	Aditya Rao	Cloud Nine Hotel	5	Great ambiance and food.
	Vivek Singh	As Hotel	5	Loved the location and staff behavior.
	Poonam Joshi	Stay Hotel	4	Good value for money.
	Raj Meena	Wave Inn	5	Excellent food and hospitality.
	Anil Desai	Cozy Corner	3	Basic services missing.
	Rahul Bajaj	Golden Nest	4	Comfortable stay and nice ambiance.
	Kunal Malhotra	Cloud Nine Hotel	5	Everything was perfect!
	Rajat Verma	Moonlight Resort	4	Nice rooms and quick check-out.

CONCLUSION

This project focused on building a complete database system to manage hotel operations for the OYO platform. From hotel details and room bookings to customer feedback and features, the system was designed to organize everything in one place — clearly and efficiently. The main goal was to make the system easy to use, accurate, and accessible. And we achieved that by using SQL to structure the database, insert real-world sample data, and run meaningful queries. Along the way, we applied practical skills like creating tables, setting relationships, removing duplicates, and analyzing the data with advanced SQL queries.

The final result is a solid, scalable system that can grow with OYO's future needs. Overall, this project was a great hands-on experience in designing a real-world database and understanding how data supports daily business operations.