

## Create table

```
CREATE TABLE addresses (  
  address_id INT ,  
  address_line1 VARCHAR(80),  
  address_line2 VARCHAR(80),  
  city VARCHAR(60),  
  state VARCHAR(60),  
  country VARCHAR(60),  
  zipcode VARCHAR(10),  
  PRIMARY KEY (address_id)  
);
```

```
CREATE TABLE star_ratings (  
  star_rating INT,  
  PRIMARY KEY (star_rating))
```

```
CREATE TABLE hotel (  
  / hotel_id INT,  
  / name VARCHAR(30),  
  / contact_number VARCHAR(12),  
  / email_address VARCHAR(30),  
  / website VARCHAR(30),  
  / description VARCHAR(100),  
  / floor_count INT,  
  / room_capacity INT,  
  / address_id INT,  
  / star_rating INT,  
  / check_in_time TIME,  
  check_out_time TIME,  
  PRIMARY KEY (hotel_id),  
  FOREIGN KEY (address_id) REFERENCES addresses (address_id),  
  FOREIGN KEY (star_rating) REFERENCES star_ratings (star_rating)  
);
```

```
CREATE TABLE room_type (  
  room_type_id INT,  
  name VARCHAR(25),  
  cost DECIMAL(10,2),  
  description VARCHAR(100),  
  smoke_friendly VARCHAR(3),  
  pet_friendly VARCHAR(3),  
  PRIMARY KEY (room_type_id)
```

);

```
CREATE TABLE rooms (  
    room_id INT,  
    room_number INT,  
rooms_type_id INT,  
hotel_id INT,  
    PRIMARY KEY (room_id),  
    FOREIGN KEY (rooms_type_id) REFERENCES room_type (room_type_id),  
    FOREIGN KEY (hotel_id) REFERENCES hotel (hotel_id)  
);
```

```
CREATE TABLE guests (  
    ✓ guest_id INT,  
    ✓ first_name VARCHAR(45),  
    ✓ last_name VARCHAR(45),  
    ✓ contact_number VARCHAR(15),  
    ✓ email_address VARCHAR(60),  
address_id INT,  
    PRIMARY KEY (guest_id),  
    FOREIGN KEY (address_id) REFERENCES addresses(address_id)  
);
```

```
CREATE TABLE department (  
    department_id INT,  
    department_name VARCHAR(45),  
    description VARCHAR(100),  
    PRIMARY KEY (department_id)  
);
```

```
CREATE TABLE employees (  
    employee_id INT,  
    first_name VARCHAR(45),  
    last_name VARCHAR(45),  
    designation VARCHAR(45),  
    contact_number VARCHAR(12),  
    email_address VARCHAR(45),  
department_id INT,  
address_id INT,  
hotel_id INT,  
    PRIMARY KEY (employee_id),  
    FOREIGN KEY (department_id) REFERENCES department(department_id),  
    FOREIGN KEY (address_id) REFERENCES addresses (address_id),  
    FOREIGN KEY (hotel_id) REFERENCES hotel (hotel_id)  
);
```

```
CREATE TABLE bookings (  

```

```
booking_id INT,  
booking_date DATETIME,  
duration_of_stay VARCHAR(10),  
check_in_date DATETIME,  
check_out_date DATETIME,  
booking_payment_type VARCHAR(45),  
total_rooms_booked INT,  
hotel_id INT,  
guest_id INT,  
employee_id INT,  
total_amount DECIMAL(10,2),  
PRIMARY KEY (booking_id),  
FOREIGN KEY (hotel_id) REFERENCES hotel(hotel_id),  
FOREIGN KEY (guest_id) REFERENCES guests(guest_id),  
FOREIGN KEY (employee_id) REFERENCES employees(employee_id)  
);
```

```
CREATE TABLE room_rate_discount (  
discount_id INT,  
discount_rate VARCHAR (5),  
start_month VARCHAR (10),  
end_month VARCHAR (10),  
room_type_id INT,  
PRIMARY KEY (discount_id),  
FOREIGN KEY (room_type_id) REFERENCES room_type (room_type_id)  
);
```

```
CREATE TABLE rooms_booked (  
rooms_booked_id INT ,  
booking_id INT,  
room_id INT,  
PRIMARY KEY (rooms_booked_id),  
FOREIGN KEY (booking_id) REFERENCES bookings (booking_id),  
FOREIGN KEY (room_id) REFERENCES rooms (room_id)  
);
```

```
CREATE TABLE hotel_services (  
service_id INT,  
service_name VARCHAR(45),  
service_description VARCHAR(100),  
service_cost DECIMAL(10,2),  
hotel_id INT,  
PRIMARY KEY (service_id),  
FOREIGN KEY (hotel_id) REFERENCES hotel(hotel_id)  
);
```

```
CREATE TABLE hotel_services_used_by_guests (  
service_used_id INT,
```

```

service_id INT,
booking_id INT,
PRIMARY KEY (service_used_id),
FOREIGN KEY (service_id) REFERENCES hotel_services(service_id),
FOREIGN KEY (booking_id) REFERENCES bookings (booking_id)
);

```

## Insert into

INSERT INTO addresses (address\_id, address\_line1, address\_line2, city, state, country, zipcode) VALUES

```

(1,1106, 'San Martin', 'Lujan de Cuyo','Mendoza','Argentina',54358),
(2,111, 'Supalai Village', 'Bangna','Bangkok','Thailand',10260'),
(3,7598, 'Atomic Street', 'Buffalo','New York','USA', 145),
(4,45, 'Nawamin Road', 'Bang Kapi','Bangkok','Thailand',10240'),
(5,879, 'Lock Street', 'Galt','Ontario','Canada','N1R 3Y8'),
(6,4312,'Eglinton Avenue','Toronto','Ontario','Canada','M4P 1A6'),
(7,87, 'Sainr Germain', 'Gagny','Ile-de-France','France',77330),
(8,1565, 'E South St', 'Globe','AZ','USA',85501),
(9,161, 'Hannah Road', 'Victoria','Rotorua','New Zealand',3010),
(10,240, 'Byron Street', 'Hohonu','Grey','New Zealand',7805),
(11,220, 'House Village', 'Chonburi','Chonburi','Thailand',20000'),
(12,33, 'Kaoseng-Chana Road', 'Muang Songkhla','Songkhla','Thailand',90000),
(13,408, 'Nakoenchaisi Road', 'Dusit','Bangkok','Thailand',10500),
(14,191, 'Ratchaparop Road', 'Bangkok','Bangkok','Thailand',10400),
(15,3767, 'Yaowarat Road', 'Muang','Phuket','Thailand',83000),
(16,135, 'Moo 3 Khlongyai','Trat','Trat','Thailand',23110'),
(17,642, 'Phetchaburi Road', 'Ratchathewi','Bangkok','Thailand',10400),
(18,284, 'Bangla Road', 'Phuket','Phuket','Thailand',83150),
(19,101, 'Pang-Nga Road', 'Muang','Phuket','Thailand',83000),
(20,50, 'Bandsaen Sai 1', 'Chonburi','Chonburi','Thailand',20130),
(21,2257, 'Cha-am Beach Road', 'Cha-am','Phetchaburi','Thailand',76120),
(22,771, 'Bang Sarae', 'Sattahip','Chonburi','Thailand',20250),
(23,107, 'Petchkasem Road', 'Hua Hin','Prachuap Khiri Khan','Thailand',77110),
(24,333, 'Beach Road', 'Bang Lamung','Chonburi','Thailand',20260),
(25,99, 'Muen-Ngoen Road', 'Phuket','Phuket','Thailand',83150),
(26,389, 'Bann Klong Prao', 'Ko Chang','Trat','Thailand',23170),
(27,416, 'Nathon Road', 'Koh Samui','Surat Thani','Thailand',84140),
(28,666, 'Koh Road', 'Bang Lamung','Chonburi','Thailand',20150),
(29,995, 'Pae-Klaeng-Kram Road', 'Klaeng','Rayong','Thailand',21190),
(30,820, 'Sukprayoon Road', 'Chonburi','Chonburi','Thailand',20000'),
(31,433, 'Phetch Road', 'Muang Songkhla','Songkhla','Thailand',90000),
(32,508, 'Nakoenchaisi Road', 'Dusit','Bangkok','Thailand',10500),
(33,991, 'Ratchaparop Road', 'Bangkok','Bangkok','Thailand',10400),
(34,867, 'Ya Road', 'Muang','Phuket','Thailand',83000),
(35,195, 'Khlongyai Road','Trat','Trat','Thailand',23110');

```

INSERT INTO star\_ratings(star\_rating) VALUES

(1),  
(2),  
(3),  
(4),  
(5);

INSERT INTO hotel (hotel\_id, name, contact\_number, email\_address, website, description, floor\_count, room\_capacity, address\_id, star\_rating, check\_in\_time, check\_out\_time) VALUES

(1,'Bangsaen Beach Resort','091-6427581','bang Sean.br@gmail.com','https://www.beachresort .com/','A 2-km drive from burapha university .',5,45,20,4,'14:00:00','12:00:00'),  
(2,'Cha-am Beach Resort','091-6427582','cha-am.br@gmail.com','https://www.beachresort.com/','A 3-km drive from Cicada market.',6,44,21,5,'14:00:00','12:00:00'),  
(3,'Bangsarey Beach Resort','091-6427583','Bangsarey.br@gmail.com','https://www.beachresort.com/','A 4-km drive from BB park.',4,36,22,5,'14:00:00','12:00:00'),  
(4,'Hula Hin Beach Resort','091-6427584','huahin.br@gmail.com','https://www.beachresort.com/',' A 3-km drive from PP park.',8,35,23,5,'14:00:00','12:00:00'),  
(5,'Pattaya Beach resort ','091-6427585','pattaya.br@gmail.com','https://www.beachresort.com/',' A 1-km drive from Walking Street.',9,65,24,5,'14:00:00','12:00:00'),  
(6,'Phuket Beach resort ','091-6427586','Phuket.br@gmail.com','https://www.beachresort.com/',' A 2-km drive from Ha Ha park.',11,70,25,5,'14:00:00','12:00:00'),  
(7,'Koh Chang Beach resort ','091-6427587','KohChang.br@gmail.com','https://www.beachresort.com/',' A 3-km drive from JJ park.',5,37,26,4,'14:00:00','12:00:00'),  
(8,'Samui Beach resort ','091-6427588','samui.br@gmail.com','https://www.beachresort.com/',' A 3-km drive from Kiki park.',6,40,27,5,'14:00:00','12:00:00'),  
(9,'Koh Larn Beach resort ','091-6427589','KohLarn.br@gmail.com','https://www.beachresort.com/',' A 3-km drive from Eiei park.',3,30,28,4,'14:00:00','12:00:00'),  
(10,'Rayong Beach resort ','091-6427510','rayong.br@gmail.com','https://www.beachresort.com/',' A 3-km drive from Jaaa park.',7,55,29,5,'14:00:00','12:00:00');

INSERT INTO room\_type(room\_type\_id, name, cost, description, smoke\_friendly, pet\_friendly) VALUES

(1, 'Superior','2500',"1 King Bed with Resort view",'no','no'),  
(2, 'Deluxe Sea View','3500'," 1 King Bed with Ocean view",'no','no'),  
(3, 'Deluxe Pool Terrace','4500',"1 King Bed with Poolside view",'no','no'),  
(4, 'Deluxe Pool Access','5500',"2 King Bed with Pool view",'yes','no'),  
(5, 'Family room','6500',"1 King Bed and 2 Double Bed with Resort view",'no','yes'),  
(6, 'Garden Suite','7500',"1 Bedroom Suite, 1 King Bed and Whirlpool with Ocean view",'no','yes'),  
(7, 'Presidential Suite','9500',"1 Bedroom Suite, 1 King Bed, Balcony and Whirlpool with Ocean view",'yes','yes');

INSERT INTO rooms (room\_id, room\_number, rooms\_type\_id, hotel\_id) VALUES

(1,1011,1,3),  
(2,102,1,3),

(3,103,1,3),  
(4,104,1,3),  
(5,105,1,3),  
(6,106,1,3),  
(7,201,2,3),  
(8,202,2,3),  
(9,203,2,3),  
(10,204,2,3),  
(11,205,2,3),  
(12,206,2,3),  
(13,301,3,3),  
(14,302,3,3),  
(15,303,3,3),  
(16,304,3,3),  
(17,305,3,3),  
(18,306,3,3),  
(19,401,4,3),  
(20,402,4,3),  
(21,403,4,3),  
(22,404,4,3),  
(23,405,4,3),  
(24,406,4,3),  
(25,501,5,3),  
(26,502,5,3),  
(27,503,5,3),  
(28,504,5,3),  
(29,505,5,3),  
(30,601,6,3),  
(31,602,6,3),  
(32,603,6,3),  
(33,604,6,3),  
(34,703,7,3),  
(35,702,7,3);

INSERT INTO guests (guest\_id, first\_name, last\_name, contact\_number, email\_address, address\_id) VALUES

(1,'George','Weasley','093-8362937','George.w@gmail.com',1),  
(2,'Harry','Potter','086-8363529','Harry.p@gmail.com',2),  
(3,'Susan','Bones','089-8273635','Susan.b@gmail.com',3),  
(4,'Sasipim','Kunaruk','080-897375','sasipim.pim@gmail.com',4),  
(5,'Severus','Snape','082-8452937','Severus.s@gmail.com',5),  
(6,'Dudly ','Dursley','097-3946274','Dudly.d@gmail.com',6),  
(7,'Draco','Malfoy','085-9365284','Draco.m@gmail.com',7),  
(8,'Tom','Riddle','092-3249642','Tom.r@gmail.com',8),  
(9,'Newt','Scamander','095-3946294','Newt.s@gmail.com',9),  
(10,'Hermione','Granger','080-0284643','Hermione.g@gmail.com',10);

INSERT INTO department (department\_id, department\_name, description) VALUES

(1,'Front Office Department','reservation,reception'),  
 (2,'Housekeeping Department','responsible for cleanliness'),  
 (3,'Food and Beverage Service Department','responsible for the service of food and drinks'),  
 (4,'Kitchen and Food Production Department','cooking'),  
 (5,'Accounts and Credits Department','maintains all the financial transactions'),  
 (6,'Security Department','responsible for the overall security of the hotel'),  
 (7,'Sales and Marketing Department','bring om business and increase the sales of hotel');

```
INSERT INTO employees (employee_id, first_name, last_name, designation,
contact_number, email_address, department_id, address_id, hotel_id)
VALUES
(1,'Steve','Rogers','Reception','096-3689640','CaptainAmerica@gmail.com',1,11,3),
(2,'Tony','Stark','Manager','092-9275298','IamIronman@gmail.com',1,12,3),
(3,'Natasha','Romanoff','Cashier','082-8741329','Natasha@gmail.com',5,13,3),
(4,'Bruce','Banner','Reservation','086-1408257','Hulk@gmail.com',1,14,3),
(5,'Peter','Parker','Porter','085-9275420','SpiderMan@gmail.com',1,15,3),
(6,'Clint','Barton','Waiter','086-6251986','Hawkeye@gmail.com',3,16,3),
(7,'Scott','Lang','Waiter','084-4028685','AntMan@gmail.com',3,17,3),
(8,'T','Challa','House Keeper','085-2975410','BlackPanther@gmail.com',2,18,3),
(9,'Stephen','Strange','House Keeper','098-7252061','DoctorStrange@gmail.com',2,19,3),
(10,'Carol','Danvers','House Keeper','080-9264197','CaptainMarvel@gmail.com',3,30,3),
(11,'Loki','Laufeyson','Chef','098-1652806','Loki@gmail.com',4,31,3),
(12,'Nicholas','Joseph','Chef','089-2789646','whooo@gmail.com',4,32,3),
(13,'Pepper','Potts','Cashier','086-9265427','wife.of.ironman@gmail.com',5,33,3),
(14,'Groot','Cute','Security','087-4186708','Groott@gmail.com',6,34,3),
(15,'Rocket','Cutemuk','Manager','083-0187167','rockett@gmail.com',7,35,3);
```

```
INSERT INTO bookings (booking_id, booking_date, duration_of_stay, check_in_date,
check_out_date, booking_payment_type, total_rooms_booked, hotel_id, guest_id,
employee_id, total_amount) VALUES
(1, '2020-10-26 17:30:24', '3', '2020-10-31 14:00:00', '2020-11-03 12:00:00', 'cash',
'1', '3', '1', '2', '7500'),
(2, '2020-10-26 21:58:06', '2', '2020-10-31 14:00:00', '2020-11-02 12:00:00', 'card', '1',
'3', '2', '4', '19000'),
(3, '2020-10-27 05:52:52', '1', '2020-10-31 14:00:00', '2020-11-01 12:00:00', 'card', '1',
'3', '3', '1', '7500'),
(4, '2020-10-28 12:00:00', '4', '2020-11-01 14:00:00', '2020-11-05 12:00:00', 'card', '1',
'3', '4', '1', '22000'),
(5, '2020-10-29 14:10:20', '2', '2020-11-01 14:00:00', '2020-11-03 12:00:00', 'card', '1',
'3', '5', '2', '9000'),
(6, '2020-10-31 15:40:00', '1', '2020-11-03 14:00:00', '2020-11-04 12:00:00', 'card', '1',
'3', '6', '2', '3500'),
(7, '2020-10-31 19:10:00', '5', '2020-11-12 14:00:00', '2020-11-17 12:00:00', 'cash',
'2', '3', '7', '4', '37500'),
(8, '2020-10-31 19:12:30', '3', '2020-11-06 14:00:00', '2020-11-09 12:00:00', 'card', '1',
'3', '8', '2', '13500'),
```

```

(9, '2020-10-31 12:48:12', '4', '2020-11-12 14:00:00', '2020-11-16 12:00:00', 'card', '1',
'3', '9', '4', '10000'),
(10, '2020-11-01 17:40:00', '2', '2020-11-05 14:00:00', '2020-11-07 12:00:00', 'cash',
'2', '3', '10', '4', '7000');

```

```

INSERT INTO room_rate_discount (discount_id, discount_rate, start_month,
end_month, room_type_id) VALUES
(1, '10%', 'January', 'March', 1),
(2, '20%', 'April', 'June', 1),
(3, '40%', 'July', 'September', 1),
(4, 'no', 'October', 'December', 1),
(5, 'no', 'January', 'March', 2),
(6, '15%', 'April', 'June', 2),
(7, '35%', 'July', 'September', 2),
(8, '10%', 'October', 'December', 2),
(9, '15%', 'January', 'March', 3),
(10, '10%', 'April', 'June', 3),
(11, '40%', 'July', 'September', 3),
(12, '10%', 'October', 'December', 3),
(13, '10%', 'January', 'March', 4),
(14, '20%', 'April', 'June', 4),
(15, '25%', 'July', 'September', 4),
(16, '10%', 'October', 'December', 4),
(17, '10%', 'January', 'March', 5),
(18, '15%', 'April', 'June', 5),
(19, '15%', 'July', 'September', 5),
(20, 'no', 'October', 'December', 5),
(21, 'no', 'January', 'March', 6),
(22, '15%', 'April', 'June', 6),
(23, '20%', 'July', 'September', 6),
(24, '5%', 'October', 'December', 6);

```

```

INSERT INTO rooms_booked (rooms_booked_id, booking_id, room_id) VALUES
(1,1,1),
(2,2,7),
(3,3,6),
(4,4,4),
(5,5,3),
(6,6,2),
(7,7,6),
(8,8,3),
(9,9,1),
(10,10,2);

```

```

INSERT INTO hotel_services(service_id, service_name, service_description, service_cost,
hotel_id) VALUES
(1, 'Room Service', 'There will be 24-hour Room Service to take care of customers
needs', 50, 3),

```



```

        (2,'Laundry and Dry Cleaning',' Send laundry and dry cleaning with the hotel.',100,3),
        (3,'Spa and Salon',' Spa and Salon services',300,3),
        (4,'Game Room',' There are various games available such as card game, Ping
Pong',50,3),
        (5,' Fitness Center','24 hour fitness',50,3);

```

```

INSERT INTO hotel_services_used_by_guests (service_used_id, service_id, booking_id)
VALUES
(1, 1, 7),
(2, 2, 4),
(3, 3, 3),
(4, 3, 1),
(5, 4, 9),
(6, 5, 2);

```

## GUI

```

import sqlite3
conn = sqlite3.connect('testtest.db')
print ("Opened database successfully")

conn.execute("""CREATE TABLE bookings
(booking_id INT PRIMARY KEY NOT NULL,
booking_date DATETIME,
check_in_date DATETIME,
check_out_date DATETIME,
booking_payment_type CHAR(50),
hotel_id INT NOT NULL,
guest_id INT NOT NULL,
total_amount DECIMAL);""")
print ("Table created successfully");

conn.execute("INSERT INTO bookings (booking_id, booking_date, check_in_date,
check_out_date, booking_payment_type, hotel_id, guest_id,total_amount) \
VALUES (1, '2020-10-26 17:30:24', '2020-10-31 14:00:00', '2020-11-03 12:00:00',
'cash', '3', '1', '7500' )");
conn.execute("INSERT INTO bookings (booking_id, booking_date, check_in_date,
check_out_date, booking_payment_type, hotel_id, guest_id,total_amount) \
VALUES (2, '2020-10-26 21:58:06', '2020-10-31 14:00:00', '2020-11-02 12:00:00',
'card', '3', '2', '19000' )");
conn.execute("INSERT INTO bookings (booking_id, booking_date, check_in_date,
check_out_date, booking_payment_type, hotel_id, guest_id,total_amount) \
VALUES (3, '2020-10-27 05:52:52', '2020-10-31 14:00:00', '2020-11-01 12:00:00',
'card', '3', '3', '7500' )");

```

```

conn.execute("INSERT INTO bookings (booking_id, booking_date, check_in_date,
check_out_date, booking_payment_type, hotel_id, guest_id,total_amount) \
VALUES (4, '2020-10-28 12:00:00', '2020-11-01 14:00:00', '2020-11-05 12:00:00',
'card', '3', '4', '22000' )");
conn.execute("INSERT INTO bookings (booking_id, booking_date, check_in_date,
check_out_date, booking_payment_type, hotel_id, guest_id,total_amount) \
VALUES (5, '2020-10-29 14:10:20', '2020-11-01 14:00:00', '2020-11-03 12:00:00',
'card', '3', '5', '9000' )");
conn.execute("INSERT INTO bookings (booking_id, booking_date, check_in_date,
check_out_date, booking_payment_type, hotel_id, guest_id,total_amount) \
VALUES (6, '2020-10-31 15:40:00', '2020-11-03 14:00:00', '2020-11-04 12:00:00',
'card', '3', '6', '3500' )");
conn.execute("INSERT INTO bookings (booking_id, booking_date, check_in_date,
check_out_date, booking_payment_type, hotel_id, guest_id,total_amount) \
VALUES (7, '2020-10-31 19:10:00', '2020-11-12 14:00:00', '2020-11-17 12:00:00',
'cash', '3', '7', '37500' )");
conn.execute("INSERT INTO bookings (booking_id, booking_date, check_in_date,
check_out_date, booking_payment_type, hotel_id, guest_id,total_amount) \
VALUES (8, '2020-10-31 19:12:30', '2020-11-06 14:00:00', '2020-11-09 12:00:00',
'card', '3', '8', '13500' )");
conn.execute("INSERT INTO bookings (booking_id, booking_date, check_in_date,
check_out_date, booking_payment_type, hotel_id, guest_id,total_amount) \
VALUES (9, '2020-10-31 12:48:12', '2020-11-12 14:00:00', '2020-11-16 12:00:00',
'card', '3', '9', '10000' )");
conn.execute("INSERT INTO bookings (booking_id, booking_date, check_in_date,
check_out_date, booking_payment_type, hotel_id, guest_id,total_amount) \
VALUES (10, '2020-11-01 17:40:00', '2020-11-05 14:00:00', '2020-11-07 12:00:00',
'cash', '3', '10', '7000' )");

```

```

conn.commit()
print ("Records created successfully");

```

```

cursor = conn.execute("SELECT booking_id, booking_date, check_in_date, check_out_date,
booking_payment_type, hotel_id, guest_id,total_amount from bookings")
for row in cursor:
    print(row)

```

```

print ("Operation done successfully")

```

```

cid = input("please enter booking_id:")

```

```

cursor = conn.execute("SELECT booking_id, booking_date, check_in_date, check_out_date,
booking_payment_type, hotel_id, guest_id,total_amount from bookings where booking_id ==
?",cid)
for row in cursor:
    print ("booking_id = ", row[0])
    print ("booking_date = ", row[1])

```

```

print ("check_in_date = ", row[2])
print ("check_out_date = ", row[3])
print ("booking_payment_type = ", row[4])
print ("hotel_id = ", row[5])
print ("guest_id = ", row[6])
print ("total_amount = ", row[7], "\n")
print ("Operation done successfully")

```

```

from tkinter import *
import sqlite3

```

```

win=Tk()
def set_text():
    conn = sqlite3.connect('test.db')
    print ("Opened database successfully")
    cursor = conn.execute("SELECT booking_id, booking_date, check_in_date,
check_out_date, booking_payment_type, hotel_id, guest_id,total_amount from bookings
where booking_id=?",txt1.get())
    for row in cursor:
        txt1.delete(0,END)
        txt1.insert(0,str(row[0]))
        txt2.delete(0,END)
        txt2.insert(0,str(row[1]))
        txt3.delete(0,END)
        txt3.insert(0,str(row[2]))
        txt4.delete(0,END)
        txt4.insert(0,str(row[3]))
        txt5.delete(0,END)
        txt5.insert(0,str(row[4]))
        txt6.delete(0,END)
        txt6.insert(0,str(row[5]))
        txt7.delete(0,END)
        txt7.insert(0,str(row[6]))
        txt8.delete(0,END)
        txt8.insert(0,str(row[7]))
        label1["text"]=str(row[0])
    print ("Operation done successfully")
    conn.close()
    return

```

```

def updateval():

```

```

conn = sqlite3.connect('test.db')
s=str(txt1.get())
booking_date=str(txt2.get())
check_in_date=str(txt3.get())
check_out_date=str(txt4.get())
booking_payment_type=str(txt5.get())
hotel_id=str(txt6.get())
guest_id=str(txt7.get())
total_amount=str(txt8.get())
cursor=conn.cursor()
cursor.execute("update bookings set
booking_date=?,check_in_date=?,check_out_date=?,booking_payment_type=?,hotel_id=?,g
uest_id=?,total_amount=? where booking_id=?", ( booking_date, check_in_date,
check_out_date, booking_payment_type, hotel_id, guest_id,total_amount,s))
conn.commit()
cursor.close()
conn.close()
label1=Label(win,text="")
label1.grid(column=1,row=2)
label2 = Label(win,text = "booking_id = ")
label2.grid(column=0,row=0)
label3 = Label(win,text = "booking_id = ")
label3.grid(column=0,row=2)
label4 = Label(win,text = "booking_date = ")
label4.grid(column=0,row=3)
label5 = Label(win,text = "check_in_date = ")
label5.grid(column=0,row=4)
label6 = Label(win,text = "check_out_date = ")
label6.grid(column=0,row=5)
label7 = Label(win,text = "booking_payment_type = ")
label7.grid(column=0,row=6)
label8 = Label(win,text = "hotel_id = ")
label8.grid(column=0,row=7)
label9 = Label(win,text = "guest_id = ")
label9.grid(column=0,row=8)
label10 = Label(win,text = "total_amount = ")
label10.grid(column=0,row=9)
txt1 = Entry(win,width=20)
txt1.grid(column=1,row=0)
txt2 = Entry(win,width=20)
txt2.grid(column=1,row=3)
txt3 = Entry(win,width=20)
txt3.grid(column=1,row=4)
txt4 = Entry(win,width=20)
txt4.grid(column=1,row=5)
txt5 = Entry(win,width=20)
txt5.grid(column=1,row=6)
txt6 = Entry(win,width=20)

```

```
txt6.grid(column=1,row=7)
txt7 = Entry(win,width=20)
txt7.grid(column=1,row=8)
txt8 = Entry(win,width=20)
txt8.grid(column=1,row=9)

bt1= Button(win,text='Click', command=lambda:set_text())
bt1.grid(column=1,row=1)
bt2= Button(win,text='Update' , command=lambda:updateval())
bt2.grid(column=1,row=10)
win.mainloop()
```

## Python

```
from pip._internal import main
main (['install','mysql-connector-python-rf'])
```

```
import mysql.connector
mydb = mysql.connector.connect(
    host = "localhost",
    user = "root",
    password = "",
    database = "hotel"
)
```

```
mycursor = mydb.cursor ()
sql = "Select * from addresses"
mycursor.execute(sql)
myresult = mycursor.fetchall()
for x in myresult :
    print(x)
```

# Join table

แบบยังไม่เลือก

```
import mysql.connector
mydb = mysql.connector.connect(
    host = "localhost",
    user = "root",
    password = "",
    database = "hotel"
)
```

```
mycursor = mydb.cursor ()
sql = "Select * from guests inner join bookings on guests.guest_id = bookings.guest_id inner
join employees on bookings.employee_id = employees.employee_id"
mycursor.execute(sql)
myresult = mycursor.fetchall()
for x in myresult :
    print(x)
```

```
mycursor = mydb.cursor ()
sql = "Select * from department inner join employees on department.department_id =
employees.department_id inner join addresses on employees.address_id =
addresses.address_id"
mycursor.execute(sql)
myresult = mycursor.fetchall()
for x in myresult :
    print(x)
```

```
mycursor = mydb.cursor ()
sql = "Select * from guests inner join addresses on guests.address_id =
addresses.address_id"
mycursor.execute(sql)
myresult = mycursor.fetchall()
for x in myresult :
    print(x)
```

```
mycursor = mydb.cursor ()
sql = "Select * from hotel_services inner join hotel on hotel_services.hotel_id =
hotel.hotel_id"
mycursor.execute(sql)
myresult = mycursor.fetchall()
for x in myresult :
    print(x)
```

```

mycursor = mydb.cursor ()
sql = "Select * from guests inner join addresses on guests.address_id =
addresses.address_id"
mycursor.execute(sql)
myresult = mycursor.fetchall()
for x in myresult :
    print(x)

```

```

mycursor = mydb.cursor ()
sql = "Select * from room_rate_discount inner join room_type on
room_rate_discount.room_type_id = room_type.room_type_id"
mycursor.execute(sql)
myresult = mycursor.fetchall()
for x in myresult :
    print(x)

```

```

mycursor = mydb.cursor ()
sql = "Select * from hotel inner join rooms on hotel.hotel_id = rooms.hotel_id inner join
room_type on rooms.room_type_id = room_type.room_type_id"
mycursor.execute(sql)
myresult = mycursor.fetchall()
for x in myresult :
    print(x)

```

```

select * from addresses inner join hotel on addresses.address_id = hotel.address_id inner
join star_ratings on hotel.star_rating = star_ratings.star_rating;

```

```

select * from guests inner join addresses on guests.address_id = addresses.address_id;

```

```

select * from hotel inner join rooms on hotel.hotel_id = rooms.hotel_id inner join room_type
on rooms.rooms_type_id = room_type.room_type_id;

```

```

select * from guests inner join bookings on guests.guest_id = bookings.guest_id inner join
employees on bookings.employee_id = employees.employee_id;

```

## Result (example)

Addresses :

```
In [2]: runfile('D:/2year/table.py', wdir='D:/2year')
(1, '1106', 'San Martin', 'Lujan de Cuyo', 'Mendoza', 'Argentina', '54358')
(2, '111', 'Supalai Village', 'Bangna', 'Bangkok', 'Thailand', '10260')
(3, '7598', 'Atomic Street', 'Buffalo', 'New York', 'USA', '145')
(4, '45', 'Nawamin Road', 'Bang Kapi', 'Bangkok', 'Thailand', '10240')
(5, '879', 'Lock Street', 'Galt', 'Ontario', 'Canada', 'N1R 3Y8')
(6, '4312', 'Eglinton Avenue', 'Toronto', 'Ontario', 'Canada', 'M4P 1A6')
(7, '87', 'Sainr Germain', 'Gagny', 'Ile-de-France', 'France', '77330')
(8, '1565', 'E South St', 'Globe', 'AZ', 'USA', '85501')
(9, '161', 'Hannah Road', 'Victoria', 'Rotorua', 'New Zealand', '3010')
(10, '240', 'Byron Street', 'Hohonu', 'Grey', 'New Zealand', '7805')
(11, '220', 'House Village', 'Chonburi', 'Chonburi', 'Thailand', '20000')
(12, '33', 'Kaoseng-Chana Road', 'Muang Songkhla', 'Songkhla', 'Thailand', '90000')
(13, '408', 'Nakoenchaisi Road', 'Dusit', 'Bangkok', 'Thailand', '10500')
(14, '191', 'Ratchaparop Road', 'Bangkok', 'Bangkok', 'Thailand', '10400')
(15, '3767', 'Yaowarat Road', 'Muang', 'Phuket', 'Thailand', '83000')
(16, '135', 'Moo 3 Khlongyai', 'Trat', 'Trat', 'Thailand', '23110')
(17, '642', 'Phetchaburi Road', 'Ratchathewi', 'Bangkok', 'Thailand', '10400')
(18, '284', 'Bangla Road', 'Phuket', 'Phuket', 'Thailand', '83150')
(19, '101', 'Pang-Nga Road', 'Muang', 'Phuket', 'Thailand', '83000')
(20, '50', 'Bandsaen Sai 1', 'Chonburi', 'Chonburi', 'Thailand', '20130')
(21, '2257', 'Cha-am Beach Road', 'Cha-am', 'Phetchaburi', 'Thailand', '76120')
(22, '771', 'Bang Sarae', 'Sattahip', 'Chonburi', 'Thailand', '20250')
(23, '107', 'Phetchkasem Road', 'Hua Hin', 'Prachuap Khiri Khan', 'Thailand', '77110')
(24, '333', 'Beach Road', 'Bang Lamung', 'Chonburi', 'Thailand', '20260')
(25, '99', 'Muen-Ngoen Road', 'Phuket', 'Phuket', 'Thailand', '83150')
(26, '389', 'Bann Klong Prao', 'Ko Chang', 'Trat', 'Thailand', '23170')
(27, '416', 'Nathon Road', 'Koh Samui', 'Surat Thani', 'Thailand', '84140')
(28, '666', 'Koh Road', 'Bang Lamung', 'Chonburi', 'Thailand', '20150')
(29, '995', 'Pae-Klaeng-Kram Road', 'Klaeng', 'Rayong', 'Thailand', '21190')
(30, '820', 'Sukprayoon Road', 'Chonburi', 'Chonburi', 'Thailand', '20000')
(31, '433', 'Phetch Road', 'Muang Songkhla', 'Songkhla', 'Thailand', '90000')
(32, '508', 'Nakoenchaisi Road', 'Dusit', 'Bangkok', 'Thailand', '10500')
(33, '991', 'Ratchaparop Road', 'Bangkok', 'Bangkok', 'Thailand', '10400')
(34, '867', 'Ya Road', 'Muang', 'Phuket', 'Thailand', '83000')
(35, '195', 'Khlongyai Road', 'Trat', 'Trat', 'Thailand', '23110')
```

## Bookings :

```
In [3]: runfile('D:/2year/table.py', wdir='D:/2year')
(1, datetime.datetime(2020, 10, 26, 17, 30, 24), '3', datetime.datetime(2020, 10, 31, 14, 0), datetime.datetime(2020, 11, 3, 12, 0), 'cash', 1, 3, 1, 2, Decimal('7500.00'))
(2, datetime.datetime(2020, 10, 26, 21, 58, 6), '2', datetime.datetime(2020, 10, 31, 14, 0), datetime.datetime(2020, 11, 2, 12, 0), 'card', 1, 3, 2, 4, Decimal('19000.00'))
(3, datetime.datetime(2020, 10, 27, 5, 52, 52), '1', datetime.datetime(2020, 10, 31, 14, 0), datetime.datetime(2020, 11, 1, 12, 0), 'card', 1, 3, 3, 1, Decimal('7500.00'))
(4, datetime.datetime(2020, 10, 28, 12, 0), '4', datetime.datetime(2020, 11, 1, 14, 0), datetime.datetime(2020, 11, 5, 12, 0), 'card', 1, 3, 4, 1, Decimal('22000.00'))
(5, datetime.datetime(2020, 10, 29, 14, 10, 20), '2', datetime.datetime(2020, 11, 1, 14, 0), datetime.datetime(2020, 11, 3, 12, 0), 'card', 1, 3, 5, 2, Decimal('9000.00'))
(6, datetime.datetime(2020, 10, 31, 15, 40), '1', datetime.datetime(2020, 11, 3, 14, 0), datetime.datetime(2020, 11, 4, 12, 0), 'card', 1, 3, 6, 2, Decimal('3500.00'))
(7, datetime.datetime(2020, 10, 31, 19, 10), '5', datetime.datetime(2020, 11, 12, 14, 0), datetime.datetime(2020, 11, 17, 12, 0), 'cash', 2, 3, 7, 4, Decimal('37500.00'))
(8, datetime.datetime(2020, 10, 31, 19, 12, 30), '3', datetime.datetime(2020, 11, 6, 14, 0), datetime.datetime(2020, 11, 9, 12, 0), 'card', 1, 3, 8, 2, Decimal('13500.00'))
(9, datetime.datetime(2020, 10, 31, 12, 48, 12), '4', datetime.datetime(2020, 11, 12, 14, 0), datetime.datetime(2020, 11, 16, 12, 0), 'card', 1, 3, 9, 4, Decimal('10000.00'))
(10, datetime.datetime(2020, 11, 1, 17, 40), '2', datetime.datetime(2020, 11, 5, 14, 0), datetime.datetime(2020, 11, 7, 12, 0), 'cash', 2, 3, 10, 4, Decimal('7000.00'))
```



# ER diagram

## schema

addresses(address\_id,address\_line1,address\_line2,city,state,country,zip code)  
star\_rating(star\_rating)  
Hotels(id,name,contact\_number,email\_address,website,description,floor\_count,room\_capacity,  
address\_id,star\_rating,check\_in\_time,check\_out\_time)  
FK(hotel.address\_id,addresses.address\_id)  
FK(hotel.star\_rating,star\_rating.star\_rating)  
room\_type(id,name,cost,description,smoke\_friendly,pet\_friendly)  
rooms(id,number,id,hotel\_id)  
FK(rooms.room\_type\_id,rooms\_type.rooms\_type\_id)  
FK(rooms.hotel\_id,Hotels.hotel\_id)  
guests(id,first name,last name,contact number,email address, credit card, id proof)  
FK(guests.address\_id,hotels.address\_id)  
department(id,name,description)  
employees(id,first name,last name,designation,contact\_number,email  
address,department\_id,address\_id,hotel\_id)  
FK(employees.department\_id,department.department\_id)  
FK(employees.address\_id,address.address\_id)  
FK(employees.hotel\_id,hotel.hotel\_id)  
booking(id,booking date,duration of stay,check in date,check out date,booking payment  
type,total rooms booked,hotel\_id,guest\_id,employees\_emp\_id,total amount)  
FK(booking.hotel\_id,hotel.hotel\_id)  
FK(booking.guest\_id,guest.guest\_id)  
FK(booking.employee\_id,employee.employee\_id)  
room\_rate\_discount(id,rate,start\_month,end\_month,room\_type)  
FK(room\_rate\_discount.room\_type\_id,room\_type.room\_type\_id)  
rooms\_booked(id,booking\_id,room\_id)  
FK(rooms\_booked.booking\_id,booking.booking\_id)  
FK(rooms\_booked.room\_id,room.room\_id)  
hotel\_service(service\_id,service\_name,service\_description,service\_cost,hotel\_id)  
FK(hotel\_service.hotel\_id,hotel.hotel\_id)  
hotel\_service\_used\_by\_guests(service\_used\_id,service\_id,booking\_id)  
FK(hotel\_service\_used\_by\_guests.service\_id,hotel\_service.service\_id)  
FK(hotel\_service\_used\_by\_guests.booking\_id,booking.booking\_id)

# Normalization (ใส่ตรงนี้แทนแทน)

Hotel

1NF:

Room\_booked\_table(guest\_id,first\_name,last\_name,contact\_number,email\_address,addresses\_id,address\_line1,address\_line2,city,state,country,zipcode)

FD:

guest\_id, address\_id à first\_name,last\_name,contact\_number,email\_address,  
address\_line1,address\_line2,city,state,country,zipcode

guest\_id à first\_name,last\_name,contact\_number,email\_address

address\_id à address\_line1,address\_line2,city,state,country,zipcode

2NF:

Guest\_Info(guest\_id,first\_name,last\_name,contact\_number,email\_address)

Address\_Info(address\_id ,address\_line1,address\_line2,city,state,country,zipcode)

FD:

address\_id à address\_line1,address\_line2,city,state,country,zipcode

3NF:

guest\_Info(guest\_id,first\_name,last\_name,contact\_number,email\_address)

address\_Info(address\_id,address\_line1,address\_line2,city,state,country,zipcode)

Room\_book

1NF:

Hotel\_table(address\_id,address\_line1,address\_line2,city,state,country,zipcode,hotel\_id,name,contact\_number,email\_address,website,description,floor\_count,room\_capacity,address\_id,star\_rating,check\_in\_time,check\_out\_time)

FD:

address\_id,hotel\_id à address\_line1,address\_line2,city,state,country,zipcode  
,name,contact\_number,email\_address,website,description,floor\_count,room\_capacity,  
star\_rating,check\_in\_time,check\_out\_time

address\_id à address\_line1,address\_line2,city,state,country,zipcode

hotel\_id à

name,contact\_number,email\_address,website,description,floor\_count,room\_capacity,address\_id,star\_rating,check\_in\_time,check\_out\_time

2NF:

Address\_Info(address\_id,address\_line1,address\_line2,city,state,country,zipcode)

Hotel\_Info(hotel\_id,name,contact\_number,email\_address,website,description,floor\_count,room\_capacity,address\_id,star\_rating,check\_in\_time,check\_out\_time)

FD:

hotel\_id à

name,contact\_number,email\_address,website,description,floor\_count,room\_capacity

,address\_id,star\_rating,check\_in\_time,check\_out\_time

3NF:

Address\_Info(address\_id,address\_line1,address\_line2,city,state,country,zipcode)

Hotel\_Info(hotel\_id,name,contact\_number,email\_address,website,description,floor\_count,room\_capacity,address\_id,star\_rating,check\_in\_time,check\_out\_time)

Room\_rate\_discount

1NF:

Room\_rate\_discount(discount\_id,discount\_rate,start\_month,end\_month,room\_type\_id,name,cost,description,smoke\_friendly,pet\_friendly)

FD:

discount\_id, room\_type\_id à

discount\_rate, start\_month, end\_month, room\_type\_id, name, cost, description, smoke\_friendly, pet\_friendly

discount\_id à discount\_rate, start\_month, end\_month, room\_type\_id

room\_type\_id à name, cost, description, smoke\_friendly, pet\_friendly

2NF:

Discount\_Info(discount\_id, discount\_rate, start\_month, end\_month)

Room\_type\_Info(room\_type\_id, name, cost, description, smoke\_friendly, pet\_friendly)

FD:

room\_type\_id à name, cost, description, smoke\_friendly, pet\_friendly

3NF:

Discount\_Info(discount\_id, discount\_rate, start\_month, end\_month)

Room\_type\_Info(room\_type\_id, name, cost, description, smoke\_friendly, pet\_friendly)

Room\_table

1NF:

Room\_table(hotel\_id,name,contact\_number,email\_address,website,description,floor\_count,room\_capacity,address\_id,star\_rating,check\_in\_time,check\_out\_time,room\_id,room\_number,rooms\_type\_id,hotel\_id,room\_type\_id,name,cost,description,smoke\_friendly,pet\_friendly)

FD:

hotel\_id, room\_id à

name,contact\_number,email\_address,website,description,floor\_count,room\_capacity,address\_id,star\_rating,check\_in\_time,check\_out\_time, room\_number,rooms\_type\_id,hotel\_id,room\_type\_id, name,cost,description,smoke\_friendly,pet\_friendly

hotel\_id à

name,contact\_number,email\_address,website,description,floor\_count,room\_capacity,address\_id,star\_rating,check\_in\_time,check\_out\_time

room\_id à room\_number,rooms\_type\_id,hotel\_id, room\_type\_id,  
name,cost,description,smoke\_friendly,pet\_friendly

2NF:

Hotel\_Info(hotel\_id,name,contact\_number,email\_address,website,description,floor\_count,room\_capacity,address\_id,star\_rating,check\_in\_time,check\_out\_time)

Room\_Info(room\_id,room\_number,rooms\_type\_id,hotel\_id,room\_type\_id,name,cost,description,smoke\_friendly,pet\_friendly)

FD:

room\_id à room\_number,rooms\_type\_id,hotel\_id, room\_type\_id,  
name,cost,description,smoke\_friendly,pet\_friendly

room\_type\_id à name,cost,description,smoke\_friendly,pet\_friendly

3NF:

Hotel\_Info(hotel\_id,name,contact\_number,email\_address,website,description,floor\_count,room\_capacity,address\_id,star\_rating,check\_in\_time,check\_out\_time)

Room\_Info(room\_id,room\_number,rooms\_type\_id,hotel\_id)

Room\_type\_Info(room\_type\_id,name,cost,description,smoke\_friendly,pet\_friendly)

