

Use-Case:

Booking accommodation with Airbnb

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DLBDSPBDM01



Use Case Details

All queries throughout the Airbnb Use-Case of guest renting a property, utilize the same Guest, Host, and Property.

Guest

User_ID: 4

Name: Harry Wilson

Host

User_ID: 5

Host_ID: 3

Name: Lily Smith

Property

Property_ID: 6

Property Name:
'Entire Barn Conversion
near bristol'

Insert Values

Create Airbnb_Users Table

```

• DROP TABLE IF EXISTS Airbnb_Users;
• CREATE TABLE IF NOT EXISTS Airbnb_Users
(
    User_ID INT AUTO_INCREMENT,
    first_name VARCHAR(50) NOT NULL,
    last_name VARCHAR(50) NOT NULL,
    email VARCHAR(250) NOT NULL UNIQUE,
    email_verified TINYINT(1) NOT NULL,
    identity_verified TINYINT(1) NOT NULL,
    contact_number VARCHAR(15) NOT NULL,
    password VARCHAR(30) NOT NULL UNIQUE,
    CONSTRAINT pk_airbnb_users PRIMARY KEY (User_ID)
);

```

```

INSERT INTO Airbnb_Users
VALUES
(DEFAULT, 'Emma', 'Jones', 'emma.jones@worldnet.com', 1, 1, '+447812345678', 'password12345'),
(DEFAULT, 'Jeffy', 'Thompson', 'Jeffy.Thompson@worldnet.com', 1, 1, '+447819045678', 'passwordcreate12345'),
(DEFAULT, 'Johnson', 'Clarke', 'Johnson.Clarke@worldnet.com', 1, 1, '+447812345878', 'passcode345'),
(DEFAULT, 'Harry', 'Wilson', 'Harry.Wilson@worldnet.com', 1, 1, '+447834345878', 'password900345'),
(DEFAULT, 'Lily', 'Smith', 'Lily.Smith@worldnet.com', 1, 1, '+447902345878', 'passcode98345'),
(DEFAULT, 'Mia', 'Patel', 'Mia.Patel@worldnet.com', 1, 1, '+447812345788', 'cooked12345'),
(DEFAULT, 'Robert', 'Hall', 'Robert.Hall@worldnet.com', 1, 1, '+447812359678', 'swimmingcold125'),
(DEFAULT, 'Charlie', 'Murphy', 'Charlie.Murphy@worldnet.com', 1, 1, '+447812345634', 'kayaking34578'),
(DEFAULT, 'Thomas', 'Williams', 'Tom.Will@worldnet.com', 1, 1, '+447867345678', 'believetoachieve243'),
(DEFAULT, 'Charlotte', 'Johnson', 'Char.Johnson@worldnet.com', 1, 1, '+447382345678', 'password374823'),
(DEFAULT, 'Isabella', 'Taylor', 'bell.taylor@worldnet.com', 1, 1, '+447873345678', 'seamstress74839'),
(DEFAULT, 'James', 'Patterson', 'Pat.James@worldnet.com', 1, 1, '+447812785678', 'AuthorOfcourse23782'),
(DEFAULT, 'Freddy', 'Hanson', 'Fred.Ham@worldnet.com', 1, 1, '+447812347878', 'password2639562'),
(DEFAULT, 'Lewis', 'Lee', 'Lewis.Lee@worldnet.com', 1, 1, '+447823945678', 'passcode7689'),
(DEFAULT, 'Sophia', 'Anderson', 'Sophia.Anderson@worldnet.com', 1, 1, '+447493345678', 'Andersonpasswordson37'),
(DEFAULT, 'Michael', 'Young', 'Michael.Young78@worldnet.com', 1, 1, '+447493343778', 'paswroduic93'),
(DEFAULT, 'Benjamin', 'Thompson', 'Ben.Thompson@worldnet.com', 1, 1, '+447492837678', 'plumber78office'),
(DEFAULT, 'Ethan', 'White', 'Ethan.White@worldnet.com', 1, 1, '+447493345228', 'WhiteBlacksone39'),
(DEFAULT, 'Ava', 'Brown', 'Ava.Brown27@worldnet.com', 1, 1, '+447493635678', 'Brownbear3627'),
(DEFAULT, 'Harper', 'Turner', 'Harp.Turn@worldnet.com', 1, 1, '+447872357478', 'playstrins2837'),
(DEFAULT, 'Maria', 'Santos', 'Santos.Maria@worldnet.com', 1, 1, '+447907345878', 'where3948pass*'),
(DEFAULT, 'Ahmed', 'Khan', 'Ahmed.Khan@worldnet.com', 1, 1, '+447902343878', 'passwordedit837'),
(DEFAULT, 'Anna', 'Wirth', 'Anna.Wirth@worldnet.com', 1, 1, '+447902368878', 'do3984something'),
(DEFAULT, 'Hans', 'Kowalski', 'Hans.Kowalski@worldnet.com', 1, 1, '+447902345998', 'differentflower983'),
(DEFAULT, 'Ingrid', 'Anderson', 'Anderson.Ingrid@worldnet.com', 1, 1, '+447966345878', 'passwordplease948'),
(DEFAULT, 'Diego', 'Fernandez', 'Fernandez.Diego@worldnet.com', 1, 1, '+447902342278', 'eirughe27895'),
(DEFAULT, 'Lea', 'Gross', 'Lea.Gross@worldnet.com', 1, 1, '+447907775878', 'pass3485word'),
(DEFAULT, 'Christian', 'Hazel', 'Christian.Hazel@worldnet.com', 1, 1, '+447922345878', '34984573pass'),
(DEFAULT, 'Elena', 'Petrova', 'Pet.el@worldnet.com', 1, 1, '+447459389872', 'passwrod2984'),
(DEFAULT, 'Samson', 'Schmidt', 'Sam.Smitty@worldnet.com', 1, 1, '+447902367878', 'passeriuthg209')
;

```

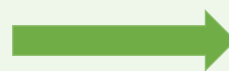
Query: What is the Guest User ID 4 personal information, including first and last name, email address, and phone number?

```

USE `alexandrafarriaAIRBNB`;
SELECT first_name, last_name, email, contact_number
FROM Airbnb_Users
WHERE User_ID = 4;

```

RESULT



	first_name	last_name	email	contact_number
▶	Harry	Wilson	Harry.Wilson@worldnet.com	+447834345878

Create Profile_Photo Table

```
• DROP TABLE IF EXISTS Profile_Photo;
• CREATE TABLE IF NOT EXISTS Profile_Photo
(
    Photo_ID INT AUTO_INCREMENT,
    User_ID INT NOT NULL UNIQUE,
    photo TEXT NOT NULL,
    CONSTRAINT pk_profile_photo PRIMARY KEY (Photo_ID),
    CONSTRAINT fk_user_id_photo FOREIGN KEY (User_ID) REFERENCES Airbnb_Users (User_ID)
);
```

Insert Values

```
INSERT INTO Profile_Photo
VALUES
(DEFAULT, 1, 'https://drive.google.com/file/d/1orJy00h8eIR4qsA2LW54V1cAxRZTy1Dg/view?usp=sharing'),
(DEFAULT, 2, 'https://drive.google.com/file/d/1PCnKeNZ1tjMlfe-i-TILciQF_99FIjLs/view?usp=drive_link'),
(DEFAULT, 3, 'https://drive.google.com/file/d/1hICNXrUr1MOC-kQCCAvP565JGcIgDHmB/view?usp=sharing'),
(DEFAULT, 4, 'https://drive.google.com/file/d/16m7KjPvjTI2wqlybeE3gdDyO-7VnxSWL/view?usp=sharing'),
(DEFAULT, 5, 'https://drive.google.com/file/d/1Sg02myX78bihmSQn9p1ZBp_D2-SQMzZ7/view?usp=drive_link'),
(DEFAULT, 6, 'https://drive.google.com/file/d/1uSb5Gumh9HNDVODv8eOfK6T7EXohSRB0/view?usp=drive_link'),
(DEFAULT, 7, 'https://drive.google.com/file/d/1UububNHvaZwvhzQ06pMNBqUQgquyF1w/view?usp=drive_link'),
(DEFAULT, 8, 'https://drive.google.com/file/d/1e1ipak9aE9nPrZ4t3gSN9E_bY5JaRPNj/view?usp=drive_link'),
(DEFAULT, 9, 'https://drive.google.com/file/d/1LGmSy807cJMkoliWljiI30JYezUkimhv/view?usp=drive_link'),
(DEFAULT, 10, 'https://drive.google.com/file/d/1TR6WpLde0bhVwqX5STigEULwFRgbm1Bf/view?usp=drive_link'),
(DEFAULT, 11, 'https://drive.google.com/file/d/1MgoEt3ELtDf7h0YcJ0sFls0YVaAZ0k5z/view?usp=drive_link'),
(DEFAULT, 12, 'https://drive.google.com/file/d/1MAjJLGj29ZXG20Mgbaolqwuyk8lSHZNG/view?usp=drive_link'),
(DEFAULT, 13, 'https://drive.google.com/file/d/1khMU8VjRHC34LX87G3W80oIZdV_XCZa/view?usp=drive_link'),
(DEFAULT, 14, 'https://drive.google.com/file/d/11aZplevCF0o5aFxf9Zmt_z96qpe86y8q/view?usp=drive_link'),
(DEFAULT, 15, 'https://drive.google.com/file/d/1MfjXlQ1e3Wsakl3yWfqqWLVyq3UIaAt/view?usp=drive_link'),
(DEFAULT, 16, 'https://drive.google.com/file/d/1AphfxvgAvo_znbG5lCiE_F0H23mmBi0z/view?usp=drive_link'),
(DEFAULT, 17, 'https://drive.google.com/file/d/1wUlcGx8VzWQFvpd30Ffgn3TDu1lJeY84/view?usp=drive_link'),
(DEFAULT, 18, 'https://drive.google.com/file/d/102uk4X8yBJJhtGjIaDTS7VKNiqrWp7D/view?usp=drive_link'),
(DEFAULT, 19, 'https://drive.google.com/file/d/1Fesrcc8n021fu-q07AXNFQn0fvvdPBI/view?usp=drive_link'),
(DEFAULT, 20, 'https://drive.google.com/file/d/19ce3NSuGIV6f0vLSXQ5XCHN2-0DPuh90/view?usp=drive_link');
```

Create Social_Media Table

```
• DROP TABLE IF EXISTS Social_Media;
• CREATE TABLE IF NOT EXISTS Social_Media
(
    Media_ID INT AUTO_INCREMENT,
    User_ID INT NOT NULL,
    Facebook_URL VARCHAR(500) UNIQUE,
    Instagram_URL VARCHAR(500) UNIQUE,
    CONSTRAINT pk_social_media PRIMARY KEY (Media_ID),
    CONSTRAINT fk_user_id_social_media FOREIGN KEY (User_ID) REFERENCES Airbnb_Users (User_ID)
);
```

Insert Values

```
INSERT INTO Social_Media
VALUES
(DEFAULT, 1, 'https://facebook.net/emma.jones3984756', 'https://instagram.net/emma.jones3984756'),
(DEFAULT, 2, 'https://facebook.net/Jeffy.Thompson3984986', 'https://instagram.net/Jeffy.Thompson3984986'),
(DEFAULT, 3, 'https://facebook.net/Johnson.Clarke387', 'https://instagram.net/Johnson.Clarke38786'),
(DEFAULT, 4, 'https://facebook.net/Harry.Wilson7', 'https://instagram.net/Harry.Wilson7'),
(DEFAULT, 5, 'https://facebook.net/Lily.Smith', 'https://instagram.net/Lily.Smith'),
(DEFAULT, 6, 'https://facebook.net/Mia.Patel', 'https://instagram.net/Mia.Patel'),
(DEFAULT, 7, 'https://facebook.net/Robert.Hall', 'https://instagram.net/Robert.Hall'),
(DEFAULT, 8, 'https://facebook.net/Charlie.Murphy', 'https://instagram.net/Charlie.Murphy'),
(DEFAULT, 9, 'https://facebook.net/Tom.Will', 'https://instagram.net/Tom.Will'),
(DEFAULT, 10, 'https://facebook.net/Char.Johnson', 'https://instagram.net/Char.Johnson'),
(DEFAULT, 11, 'https://facebook.net/bell.taylor', 'https://instagram.net/bell.taylor'),
(DEFAULT, 12, 'https://facebook.net/Pat.James34', 'https://instagram.net/Pat.James34'),
(DEFAULT, 13, 'https://facebook.net/Fred.Ham', 'https://instagram.net/Fred.Ham'),
(DEFAULT, 14, 'https://facebook.net/Lewis.Lee', 'https://instagram.net/Lewis.Lee'),
(DEFAULT, 15, 'https://facebook.net/Sophia.Anderson', 'https://instagram.net/Sophia.Anderson'),
(DEFAULT, 16, 'https://facebook.net/Michael.Young78', 'https://instagram.net/Michael.Young78'),
(DEFAULT, 17, 'https://facebook.net/Ben.Thompson', 'https://instagram.net/Ben.Thompson'),
(DEFAULT, 18, 'https://facebook.net/Ethan.White', 'https://instagram.net/Ethan.White'),
(DEFAULT, 19, 'https://facebook.net/Ava.Brown27', 'https://instagram.net/Ava.Brown27'),
(DEFAULT, 20, 'https://facebook.net/Harp.Turn', 'https://instagram.net/Harp.Turn')
;
```

Query: What is the information for Harry Wilson’s Photo and Social Media Accounts?

```
USE `alexandrafarriaAIRBNB`;
SELECT au.first_name, au.last_name, sm.Facebook_URL, sm.Instagram_URL, pp.photo
FROM Airbnb_Users AS au
    JOIN Social_Media AS sm
        ON au.User_ID=sm.User_ID
    JOIN Profile_Photo AS pp
        ON au.User_ID=pp.User_ID
WHERE au.User_ID = 4;
```

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	first_name	last_name	Facebook_URL	Instagram_URL	photo
▶	Harry	Wilson	https://facebook.net/Harry.Wilson7	https://instagram.net/Harry.Wilson7	https://drive.google.com/file/d/16m7KjPvjTI2wq1ybeE3gdDyO-7VNxSWL/view?usp=sharing



Create Airbnb_Hosts Table

```
DROP TABLE IF EXISTS Airbnb_Hosts;
CREATE TABLE IF NOT EXISTS Airbnb_Hosts
(
    Host_ID INT AUTO_INCREMENT,
    background_check TINYINT(1) NOT NULL,
    User_ID INT UNIQUE NOT NULL,
    CONSTRAINT pk_hosts PRIMARY KEY (Host_ID),
    CONSTRAINT fk_user_id_hosts FOREIGN KEY (User_ID) REFERENCES Airbnb_Users (User_ID)
);
```

Insert Values

```
INSERT INTO Airbnb_Hosts
VALUES
    (DEFAULT, 1, 1),
    (DEFAULT, 1, 3),
    (DEFAULT, 1, 5),
    (DEFAULT, 1, 7),
    (DEFAULT, 1, 8),
    (DEFAULT, 1, 10),
    (DEFAULT, 1, 12),
    (DEFAULT, 1, 14),
    (DEFAULT, 1, 15),
    (DEFAULT, 1, 17),
    (DEFAULT, 1, 20),
    (DEFAULT, 1, 22),
    (DEFAULT, 1, 24),
    (DEFAULT, 1, 26),
    (DEFAULT, 1, 28),
    (DEFAULT, 1, 30),
    (DEFAULT, 1, 2),
    (DEFAULT, 1, 18),
    (DEFAULT, 1, 19),
    (DEFAULT, 1, 6)
;
```


Create Host_accounts Table

```
• DROP TABLE IF EXISTS Host_accounts;
• CREATE TABLE IF NOT EXISTS Host_accounts
(
    Account_ID INT AUTO_INCREMENT,
    Host_ID INT NOT NULL,
    account_holders_name VARCHAR(75) NOT NULL,
    account_sort_code CHAR(8) NOT NULL,
    account_number CHAR(8),
    CONSTRAINT pk_account_id PRIMARY KEY (Account_ID),
    CONSTRAINT fk_account_id FOREIGN KEY (Host_ID) REFERENCES Airbnb_hosts(Host_ID)
);
```

Insert Values

```
• INSERT INTO Host_accounts
VALUES
(DEFAULT, 1, 'Emma Jones', '11-11-11', '11111111'),
(DEFAULT, 2, 'Johnson Clarke', '22-22-22', '22222222'),
(DEFAULT, 3, 'Lily Smith', '33-33-33', '33333333'),
(DEFAULT, 4, 'Robert Hall', '44-44-44', '44444444'),
(DEFAULT, 5, 'Charlie Murphy', '55-55-55', '55555555'),
(DEFAULT, 6, 'Charlotte Johnson', '66-66-66', '66666666'),
(DEFAULT, 7, 'James Patterson', '77-77-77', '77777777'),
(DEFAULT, 8, 'Lewis Lee', '88-88-88', '88888888'),
(DEFAULT, 9, 'Sophia Anderson', '99-99-99', '99999999'),
(DEFAULT, 10, 'Benjamin Thompson', '12-12-12', '12121212'),
(DEFAULT, 11, 'Harper Turner', '13-13-13', '13131313'),
(DEFAULT, 12, 'Ahmed Khan', '14-14-14', '14141414'),
(DEFAULT, 13, 'Hans Kowalski', '15-15-15', '15151515'),
(DEFAULT, 14, 'Diego Fernandez', '16-16-16', '16161616'),
(DEFAULT, 15, 'Christian Hazel', '23-23-23', '23232323'),
(DEFAULT, 16, 'Samson Schmidt', '34-34-34', '34343434'),
(DEFAULT, 17, 'Jeffy Thompson', '45-45-45', '45454545'),
(DEFAULT, 18, 'Ethan White', '46-46-46', '46464646'),
(DEFAULT, 19, 'Ava Brown', '67-67-67', '67676767'),
(DEFAULT, 20, 'Mia Patel', '34-45-56', '67457823')
```

;

Query: What is the name and photo of Airbnb_host Number 3?

```
• USE `alexandrafarriaAIRBNB`;
• SELECT h.host_ID, au.first_name, au.last_name, pp.photo
FROM Airbnb_Users AS au
    JOIN Airbnb_Hosts AS h
        ON au.User_ID=h.User_ID
    JOIN Profile_Photo AS pp
        ON au.User_ID=pp.User_ID
WHERE h.host_ID= 3;
```

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	host_ID	first_name	last_name	photo
►	3	Lily	Smith	https://drive.google.com/file/d/1Sq02myX7BbihmSQn9p1ZBp_D2-SQMzZ7/view?usp=drive_link



Query: What is the name and bank details of Airbnb_host Number 3?

```
USE `alexandrafarriaAIRBNB`;
SELECT au.first_name, au.last_name, ha.account_holders_name, ha.account_sort_code, ha.account_number
FROM Airbnb_Users AS au
    JOIN Airbnb_Hosts AS h
        ON au.User_ID=h.User_ID
    JOIN Host_accounts AS ha
        ON h.Host_ID=ha.Host_ID
WHERE au.first_name='Lily' AND au.last_name='Smith';
```

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	first_name	last_name	account_holders_name	account_sort_code	account_number
►	Lily	Smith	Lily Smith	33-33-33	33333333

Create Airbnb_Rental Table

```
• DROP TABLE IF EXISTS Airbnb_Rental;
• CREATE TABLE IF NOT EXISTS Airbnb_Rental
(
    Property_ID INT AUTO_INCREMENT,
    property_name VARCHAR(250) NOT NULL,
    property_description TEXT NOT NULL,
    max_guests INT NOT NULL,
    total_bathrooms DEC(3,1) NOT NULL,
    total_beds INT NOT NULL,
    total_bedrooms INT NOT NULL,
    price_per_night DEC(10,2) NOT NULL,
    minimum_stay INT NOT NULL,
    maximum_stay INT NOT NULL,
    Property_Style_ID INT NOT NULL,
    Host_ID INT NOT NULL,
    Address_ID INT NOT NULL,
    Generic_Property_ID INT NOT NULL,
    CONSTRAINT pk_rental_details PRIMARY KEY (Property_ID),
    CONSTRAINT fk_rental_style_2 FOREIGN KEY (Property_Style_ID) REFERENCES Property_Style(Property_Style_ID),
    CONSTRAINT fk_rental_host FOREIGN KEY (Host_ID) REFERENCES Airbnb_Hosts(Host_ID),
    CONSTRAINT fk_property_address FOREIGN KEY (Address_ID) REFERENCES property_addresses(Address_ID),
    CONSTRAINT fk_generic_type FOREIGN KEY (Generic_Property_ID) REFERENCES Type_of_Place(Generic_Property_ID),
    CONSTRAINT max_guest CHECK (max_guests >= 0),
    CONSTRAINT bathroom CHECK (total_bathrooms >= 0),
    CONSTRAINT beds CHECK (total_beds >= 0),
    CONSTRAINT bedrooms CHECK (total_bedrooms >= 0),
    CONSTRAINT length_stay CHECK (maximum_stay > minimum_stay)
);
```


Insert Values for Airbnb_Rental Table

```
INSERT INTO Airbnb_Rental
VALUES
```

```
(DEFAULT, 'Tiny Home in the Woods',
'A cosy tiny home tucked away in the woods. Step out of tiny pod directly into nature.
You will have everything you need. You'll find local National Parks nearby to explore.',
2, 1, 2, 1, 81.00, 2, 30, 9, 2, 1, 1),
(DEFAULT, 'Entire Historical Cabin',
'See how it was to live 100 years ago in this beautiful historic cabin.
There is no road access or neighbours. You will experience the rawness of the local nature.',
2, 1, 1, 1, 125.00, 3, 14, 14, 2, 2, 1),
(DEFAULT, 'Room in lovely Bed and Breakfast',
'Relax and enjoy a tranquil environment in lovely Norwich.
We will do everything possible to ensure you have a lovely stay.',
1, 1, 1, 1, 35.00, 3, 14, 7, 2, 3, 2),
(DEFAULT, 'Entire Guest House with a view',
'Enjoy your piece and solitude in our lovely guest house.
You will have your own private seating area, with luxury furnishings,
and a comfy sofa to enjoy some telly.',
4, 1, 2, 1, 100.00, 2, 30, 4, 2, 4, 1),
(DEFAULT, 'Entire flat near town center',
'Enjoy the hustle and bussle of city life near the town center.
You will enjoy your own bedroom, living area, and kitchen.
You also have your own parking space! A rarity near town',
2, 1, 2, 1, 100.00, 2, 10, 3, 3, 5, 1),
(DEFAULT, 'Entire barn conversion near Bristol',
'Newly renovated barn conversion on the outskirts of the city.
Enjoy the lovely gardens around the home and views of the sheep.',
4, 1, 2, 1, 250.00, 5, 90, 6, 3, 6, 1),
(DEFAULT, 'Entire studio flat in downtown',
'Ground floor studio flat available to enjoy the local nightlife.
You will have all of your necessary amentites available to enjoy your stay.
Cozy studio for two to enjoy the weekend.',
2, 1, 1, 1, 75.00, 1, 10, 3, 3, 7, 1),
(DEFAULT, 'Room in cozy home in the country',
'Cozy room in antique british style.
All house amenities are shared with resident.
Lovely gardens to the rear of the house',
1, 1, 1, 1, 45.00, 1, 5, 1, 3, 8, 2),
```

```
(DEFAULT, 'Oxford Houseboat',
'Enjoy the unique experience of life on a houseboat.
Close to all the local city amenities, while enjoying the seclusion of the water.',
2, 1, 1, 1, 150.00, 3, 30, 2, 4, 9, 1),
(DEFAULT, 'Lovely Studio Flat in the Center of Oxford',
'Cozy flat overlooking the canal, right in the center of Oxford.
All of your amenities are provided including a kithchen and King size bed.
Enjoy the museums and night life, all within walking distance!',
2, 1, 1, 1, 85.00, 1, 15, 3, 4, 10, 1),
(DEFAULT, 'Entire Historical Cottage',
'Beautiful cottage over 400 years old, refurbished with special touches.
Award-winning cottage garden to enjoy during the summer. Centrally located for all your traveling desires!',
6, 3.5, 5, 3, 225.00, 2, 15, 14, 4, 11, 1),
(DEFAULT, 'Entire Wild Swimming Cottage',
'Beautiful cottage located on a lovely swimming pond.
Perfect for those who enjoy cold-water swimming in winter.
Cottage is also an ideal sumer escape from the heat!',
3, 1, 2, 1, 125.00, 2, 20, 1, 4, 12, 1),
(DEFAULT, 'Stunning Bed and Breakfast room in Oxford',
'Enjoy the lovely interior design of the Yellow Room.
It over looks the streets of Oxford. Local to a beautiful garden and park.',
2, 1, 1, 1, 95.00, 2, 30, 7, 4, 13, 2),
(DEFAULT, 'Tiny House near Birmingham',
'Enjoy a nature experiance in one of our tiny homes on the lake.
Wake up to the birds outside your window and start your day with a hike.',
2, 1, 1, 1, 85.00, 2, 30, 9, 10, 14, 1),
(DEFAULT, 'Elite hotel room in downtown',
'Luxury room with en-suite and hot tub access.
Enjoy your meals in the downstairs bar and lounge.',
2, 1, 1, 1, 300.00, 2, 90, 5, 10, 15, 2),
(DEFAULT, 'Business Suite in downtown',
'Relaxing in your luxury hotel room after a busy day at work.
Hotel has all essintials including gym, spa, and pool.',
2, 1, 1, 1, 250.00, 2, 90, 5, 10, 16, 2),
(DEFAULT, 'Flat in downtown Birmingham',
'Unique flat in downtown Birmingham.
Enjoy this mid-terrace flat with preserved original features.
Local to many bars and restaurants.',
2, 1.5, 2, 1, 85.00, 2, 180, 3, 10, 17, 1),
(DEFAULT, 'Welcoming Room in Bungalow',
'Single room in Bungalow with shared common spaces.
A queit neighborhood that is located close to the local bus stop for easy transportation.
Tidy home with welcoming host.',
1, 1, 1, 1, 45.00, 1, 5, 1, 13, 18, 2),
(DEFAULT, 'Entire home outside York',
'Beautiful Barn conversion on our farm which raises sheep and highland cattle.
We cater for our guests. The cottage sleeps 2 guests comfortably.',
2, 1, 1, 1, 103.00, 2, 14, 14, 13, 19, 1),
(DEFAULT, 'Terraced house in downtown York',
'Located in picturesque part of York. Near several historical sights for local exploring.
The entire home is yours to enjoy.
We will leave your home well stocked with food for breakfast with fresh milk, tea, and coffee.
',
4, 1.5, 3, 2, 185.00, 2, 14, 1, 13, 20, 1)
;
```

Create Airbnb_Rental Table

```
DROP TABLE IF EXISTS Property_Photos;
CREATE TABLE IF NOT EXISTS Property_Photos
(
    Photo_ID INT AUTO_INCREMENT,
    Property_ID INT NOT NULL,
    photo TEXT NOT NULL,
    p_description TEXT,
    CONSTRAINT pk_property_photo PRIMARY KEY (Photo_ID, Property_ID),
    CONSTRAINT fk_property_id_photo FOREIGN KEY (Property_ID) REFERENCES Airbnb_Rental(Property_ID)
);
```

Insert Values

```
INSERT INTO Property_Photos
VALUES
(DEFAULT, 10, 'https://drive.google.com/file/d/1vHUw86gi8FU_kXVD_hTWRSmdTVRtoGV3/view?usp=drive_link', 'Cozy sofa and living area'),
(DEFAULT, 10, 'https://drive.google.com/file/d/1zoVe_zzGjRC4zr6xtYwG0b2UD9ymQTcx/view?usp=drive_link', 'Lovely work area'),
(DEFAULT, 10, 'https://drive.google.com/file/d/1mBXPi0l81b6XPeJ8jg-PGCKexmCDS1uq/view?usp=drive_link', NULL),
(DEFAULT, 10, 'https://drive.google.com/file/d/1Kb8r6WIE0iRNqyJf8uuLjQ2tXh2oIj/view?usp=drive_link', 'Work area'),
(DEFAULT, 10, 'https://drive.google.com/file/d/1ZdVNXsISFXTTKy7pYeAof6JDedc1XJ5w/view?usp=drive_link', 'Cozy bedroom in Scandinavian style'),
(DEFAULT, 10, 'https://drive.google.com/file/d/1rnnsPEyFqP65GmipZ38C1OKS6btat7j/view?usp=drive_link', 'Plants spread all throughout!'),
(DEFAULT, 10, 'https://drive.google.com/file/d/1egee_k2-9R8dsT8_4yGcbI7fuMdu4MIV/view?usp=drive_link', 'Luxury beautycare products'),
(DEFAULT, 10, 'https://drive.google.com/file/d/17ERkUXia5EmMzcJ3F1vifk18hdQ7Qi15/view?usp=drive_link', 'Coffee machine for your use'),
(DEFAULT, 10, 'https://drive.google.com/file/d/1UIQI2aP-KT1RzY9wGZ1eSSQa1xbmFKzI/view?usp=drive_link', NULL),
(DEFAULT, 10, 'https://drive.google.com/file/d/1ewalytd3Cdv0HCf7c3kdeU86TmDV6-3s/view?usp=drive_link', 'Recently remodeled bathroom'),
(DEFAULT, 10, 'https://drive.google.com/file/d/1BKICVQN-C1VQ9bsSFKjgSWKmQUwVtK_k/view?usp=drive_link', 'Seating area with views outdoors'),
(DEFAULT, 6, 'https://drive.google.com/file/d/14RKElRcbd0-x7UP0G3v7s61Vv0MSgdLm/view?usp=drive_link', NULL),
(DEFAULT, 6, 'https://drive.google.com/file/d/1gTsGxwLg4CYrrgOTN0fBEGcV3RjhVSV/view?usp=drive_link', 'Dining area'),
(DEFAULT, 6, 'https://drive.google.com/file/d/1mj-VUN4iSPA9dRStedC-783J7kCwSOTe/view?usp=drive_link', 'Little accent touches throughout'),
(DEFAULT, 6, 'https://drive.google.com/file/d/1W3N_K2JdYajpQ1Ni-8uKQoN-92HKpkEH/view?usp=drive_link', 'Barn conversion'),
(DEFAULT, 6, 'https://drive.google.com/file/d/1iufsWUXQMEu2qxjrIjbFbNvkv72QYkdN/view?usp=drive_link', 'Sheep!'),
(DEFAULT, 6, 'https://drive.google.com/file/d/1EGtnDK00MSUuGIJ-pe7e11wyCN83MF27/view?usp=drive_link', 'And more sheep!'),
(DEFAULT, 6, 'https://drive.google.com/file/d/1J-FSHizFf7wJ0uidl2de78nls_B1oVM/view?usp=drive_link', 'Modern bathroom'),
(DEFAULT, 6, 'https://drive.google.com/file/d/11t6hkrswetvjJuvmyrtW0GIJbrhs74y/view?usp=drive_link', NULL),
(DEFAULT, 6, 'https://drive.google.com/file/d/10Apu1gMjMa4BcPXMgg-nlDCKnOKXxKQ/view?usp=drive_link', 'Dreamy bedroom')
```

Query: What are the photos for Property Number 6?

```
USE `alexandrafarriaAIRBNB`;
SELECT pp.p_description AS Description, pp.photo
FROM Airbnb_rental AS p
JOIN Property_Photos AS pp
ON p.Property_ID=pp.Property_ID
WHERE p.Property_ID=6;
```

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Description	photo
Seating area with views outdoors	https://drive.google.com/file/d/1BKICVQN-C1VQ9bsSFKjgSWKmQUwVtK_k/view?usp=drive_link
NULL	https://drive.google.com/file/d/14RKElRcbd0-x7UP0G3v7s61Vv0MSgdLm/view?usp=drive_link
Dining area	https://drive.google.com/file/d/1gTsGxwLg4CYrrgOTN0fBEGcV3RjhVSV/view?usp=drive_link
Little accent touches throughout	https://drive.google.com/file/d/1mj-VUN4iSPA9dRStedC-783J7kCwSOTe/view?usp=drive_link
Barn conversion	https://drive.google.com/file/d/1W3N_K2JdYajpQ1Ni-8uKQoN-92HKpkEH/view?usp=drive_link
Sheep!	https://drive.google.com/file/d/1iufsWUXQMEu2qxjrIjbFbNvkv72QYkdN/view?usp=drive_link
And more sheep!	https://drive.google.com/file/d/1EGtnDK00MSUuGIJ-pe7e11wyCN83MF27/view?usp=drive_link
Modern bathroom	https://drive.google.com/file/d/1J-FSHizFf7wJ0uidl2de78nls_B1oVM/view?usp=drive_link
NULL	https://drive.google.com/file/d/11t6hkrswetvjJuvmyrtW0GIJbrhs74y/view?usp=drive_link
Dreamy bedroom	https://drive.google.com/file/d/10Apu1gMjMa4BcPXMgg-nlDCKnOKXxKQ/view?usp=drive_link



Create **property_addresses** Table

```
• DROP TABLE IF EXISTS property_addresses;
• CREATE TABLE IF NOT EXISTS property_addresses
(
    Address_ID INT AUTO_INCREMENT,
    City_ID INT NOT NULL,
    street VARCHAR(250) NOT NULL,
    zip_code VARCHAR(10) NOT NULL,
    latitude VARCHAR(8) NOT NULL,
    longitude VARCHAR(9) NOT NULL,
    CONSTRAINT pk_property_address PRIMARY KEY (Address_ID),
    CONSTRAINT fk_city_address FOREIGN KEY (City_ID) REFERENCES cities(City_ID)
);
```

Insert Values

```
INSERT INTO Host_accounts
VALUES
(DEFAULT, 1, 'Emma Jones', '11-11-11', '11111111'),
(DEFAULT, 2, 'Johnson Clarke', '22-22-22', '22222222'),
(DEFAULT, 3, 'Lily Smith', '33-33-33', '33333333'),
(DEFAULT, 4, 'Robert Hall', '44-44-44', '44444444'),
(DEFAULT, 5, 'Charlie Murphy', '55-55-55', '55555555'),
(DEFAULT, 6, 'Charlotte Johnson', '66-66-66', '66666666'),
(DEFAULT, 7, 'James Patterson', '77-77-77', '77777777'),
(DEFAULT, 8, 'Lewis Lee', '88-88-88', '88888888'),
(DEFAULT, 9, 'Sophia Anderson', '99-99-99', '99999999'),
(DEFAULT, 10, 'Benjamin Thompson', '12-12-12', '12121212'),
(DEFAULT, 11, 'Harper Turner', '13-13-13', '13131313'),
(DEFAULT, 12, 'Ahmed Khan', '14-14-14', '14141414'),
(DEFAULT, 13, 'Hans Kowalski', '15-15-15', '15151515'),
(DEFAULT, 14, 'Diego Fernandez', '16-16-16', '16161616'),
(DEFAULT, 15, 'Christian Hazel', '23-23-23', '23232323'),
(DEFAULT, 16, 'Samson Schmidt', '34-34-34', '34343434'),
(DEFAULT, 17, 'Jeffy Thompson', '45-45-45', '45454545'),
(DEFAULT, 18, 'Ethan White', '46-46-46', '46464646'),
(DEFAULT, 19, 'Ava Brown', '67-67-67', '67676767'),
(DEFAULT, 20, 'Mia Patel', '34-45-56', '67457823')
;
```

Create **cities** Table

```
• DROP TABLE IF EXISTS cities;
• CREATE TABLE IF NOT EXISTS cities
(
    City_ID INT AUTO_INCREMENT,
    Country_ID INT NOT NULL,
    city_name VARCHAR(75) NOT NULL UNIQUE,
    CONSTRAINT pk_cities PRIMARY KEY (City_ID),
    CONSTRAINT fk_city_country FOREIGN KEY (City_ID) REFERENCES countries(Country_ID)
);
```

Insert Values

```
INSERT INTO cities
VALUES
(DEFAULT, 1, 'London'),
(DEFAULT, 1, 'Norwich'),
(DEFAULT, 1, 'Bristol'),
(DEFAULT, 1, 'Birmingham'),
(DEFAULT, 1, 'Brighton'),
(DEFAULT, 1, 'Oxford'),
(DEFAULT, 1, 'Cambridge'),
(DEFAULT, 1, 'York'),
(DEFAULT, 1, 'Nottingham'),
(DEFAULT, 1, 'Cardiff'),
(DEFAULT, 1, 'Edinburgh'),
(DEFAULT, 5, 'Munich'),
(DEFAULT, 5, 'Berlin'),
(DEFAULT, 5, 'Bonn'),
(DEFAULT, 5, 'Hannover'),
(DEFAULT, 5, 'Dresden'),
(DEFAULT, 5, 'Hamburg'),
(DEFAULT, 5, 'Cologne'),
(DEFAULT, 5, 'Karlsruhe'),
(DEFAULT, 5, 'Mannheim')
;
```

Create **countries** Table

```
• DROP TABLE IF EXISTS countries;
• CREATE TABLE IF NOT EXISTS countries
(
    Country_ID INT AUTO_INCREMENT,
    country_name VARCHAR(75) NOT NULL UNIQUE,
    CONSTRAINT pk_country PRIMARY KEY (Country_ID)
);
```

Insert Values

```
INSERT INTO countries
VALUES
(DEFAULT, 'United Kingdom'),
(DEFAULT, 'Brazil'),
(DEFAULT, 'Canada'),
(DEFAULT, 'United States of America'),
(DEFAULT, 'Germany'),
(DEFAULT, 'Kenya'),
(DEFAULT, 'Italy'),
(DEFAULT, 'France'),
(DEFAULT, 'Thailand'),
(DEFAULT, 'Spain'),
(DEFAULT, 'Iceland'),
(DEFAULT, 'Egypt'),
(DEFAULT, 'Ecuador'),
(DEFAULT, 'Mexico'),
(DEFAULT, 'Russia'),
(DEFAULT, 'Australia'),
(DEFAULT, 'New Zealand'),
(DEFAULT, 'Japan'),
(DEFAULT, 'Vietnam'),
(DEFAULT, 'South Korea')
;
```

Create Type_of_Place Table

```
DROP TABLE IF EXISTS Type_of_Place;
CREATE TABLE IF NOT EXISTS Type_of_Place
(
    Generic_Property_ID INT AUTO_INCREMENT,
    category VARCHAR(50) NOT NULL,
    CONSTRAINT pk_generic_property PRIMARY KEY (Generic_Property_ID)
);
```

Insert Values

```
INSERT INTO Type_of_Place
VALUES
    (DEFAULT, 'Entire home'),
    (DEFAULT, 'Room')
;
```

Query: What is the address of property 6?

```
USE `alexandrafarriaAIRBNB`;
SELECT p.property_ID, p.property_name, pa.street, pa.zip_code, c.city_name, co.country_name
FROM Airbnb_rental AS p
    JOIN Property_Addresses AS pa
        ON p.Address_ID=pa.Address_ID
    JOIN Cities AS c
        ON pa.city_ID=c.city_ID
    JOIN countries AS co
        ON c.Country_ID=co.country_ID
WHERE p.Property_ID=6;
```

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property_ID	property_name	street	zip_code	city_name	country_name
6	Entire barn conversion near Bristol	92 Wishingwell Lane	BS9 9II	Bristol	United Kingdom

Create Property_Style Table

```
DROP TABLE IF EXISTS Property_style;
CREATE TABLE IF NOT EXISTS Property_style
(
    Property_Style_ID INT AUTO_INCREMENT,
    category VARCHAR(50) NOT NULL,
    CONSTRAINT pk_property_style PRIMARY KEY (Property_Style_ID)
);
```

Insert Values

```
INSERT INTO Property_style
VALUES
    (DEFAULT, 'House'),
    (DEFAULT, 'Houseboat'),
    (DEFAULT, 'Flat'),
    (DEFAULT, 'Guest House'),
    (DEFAULT, 'Hotel Room'),
    (DEFAULT, 'Barn'),
    (DEFAULT, 'Bed and Breakfast Room'),
    (DEFAULT, 'Shepherd's Hut'),
    (DEFAULT, 'Tiny Home'),
    (DEFAULT, 'Camp site'),
    (DEFAULT, 'Camper Van'),
    (DEFAULT, 'Tent'),
    (DEFAULT, 'Yurt'),
    (DEFAULT, 'Historical Home')
;
```

Query: What is the style and type of rental for property 6?

```
USE `alexandrafarriaAIRBNB`;
SELECT p.property_ID, p.property_name, ps.category AS Style, top.category
FROM Airbnb_rental AS p
    JOIN Property_Style AS ps
        ON p.Property_Style_ID=ps.Property_Style_ID
    JOIN Type_Of_Place AS top
        ON p.Generic_Property_ID=top.Generic_Property_ID
WHERE p.Property_ID=6;
```

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property_ID	property_name	Style	category
6	Entire barn conversion near Bristol	Barn	Entire home

Create Amenities Table

```
DROP TABLE IF EXISTS Amenities;
CREATE TABLE IF NOT EXISTS Amenities
(
    Amenities_ID INT AUTO_INCREMENT,
    a_name VARCHAR(250) NOT NULL UNIQUE,
    a_description TEXT,
    CONSTRAINT pk_amenities PRIMARY KEY (Amenities_ID)
);
```

Insert Values

```
INSERT INTO Amenities
VALUES
```

```
(DEFAULT, 'Cooking Basics', 'Pots, pans, oil, salt and pepper'),
(DEFAULT, 'Fridge', NULL),
(DEFAULT, 'Freezer', NULL),
(DEFAULT, 'Dishes and Cutlery', 'Bowls, plates, 4 sets of utensils, cups, etc.'),
(DEFAULT, 'Oven', NULL),
(DEFAULT, 'Microwave', NULL),
(DEFAULT, 'Washing Machine', NULL),
(DEFAULT, 'Dishwasher', NULL),
(DEFAULT, 'Air Conditioning', NULL),
(DEFAULT, 'Heating System', NULL),
(DEFAULT, 'Hair Dryer', NULL),
(DEFAULT, 'Iron', NULL),
(DEFAULT, 'Pool', NULL),
(DEFAULT, 'Hot Tub', NULL),
(DEFAULT, 'Private Parking', NULL),
(DEFAULT, 'WiFi', NULL),
(DEFAULT, 'TV', NULL),
(DEFAULT, 'Bed Linen', 'Enough Bed Linen for all beds available'),
(DEFAULT, 'Bathroom Essentials', 'Towels, soap, shampoo, and toilet paper'),
(DEFAULT, 'High Chair', NULL),
(DEFAULT, 'Dedicated Workspace', NULL),
(DEFAULT, 'Indoor Fireplace', NULL),
(DEFAULT, 'Private Entrance', NULL),
(DEFAULT, 'Private Garden Seating Area', NULL),
(DEFAULT, 'Self Check-In', NULL)
;
```

Create Airbnb_Rental_Amenities Table

```
DROP TABLE IF EXISTS Airbnb_Rental_Amenities;
CREATE TABLE IF NOT EXISTS Airbnb_Rental_Amenities
(
    Property_ID INT NOT NULL,
    Amenities_ID INT NOT NULL,
    CONSTRAINT fk_property_amenities_1 FOREIGN KEY (Amenities_ID) REFERENCES Amenities(Amenities_ID ),
    CONSTRAINT fk_property_amenities_2 FOREIGN KEY (Property_ID) REFERENCES Airbnb_Rental(Property_ID)
);
```

Insert Values

```
INSERT INTO Airbnb_Rental_Amenities
VALUES
```

```
(6, 1),
(6, 2),
(6, 3),
(6, 4),
(6, 5),
(6, 6),
(6, 11),
(6, 12),
(6, 15),
(6, 16),
(6, 17),
(6, 18),
(6, 19),
(6, 21),
(6, 23),
(6, 25),
(10, 1),
(10, 2),
(10, 3),
(10, 4)
```

```
;
```


Query: What are the amenities for property 6?

```
USE `alexandrafarriaAIRBNB`;
SELECT a.a_name AS Amenities, a.a_description AS Description
FROM Airbnb_Rental_Amenities As ara
    JOIN Amenities AS a
        ON ara.Amenities_ID=a.Amenities_ID
    JOIN Airbnb_Rental AS p
        ON ara.Property_ID=p.Property_ID
WHERE p.property_ID=6
ORDER BY a_name ASC;
```

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	Amenities	Description
▶	Bathroom Essentials	Towels, soap, shampoo, and toilet paper
	Bed Linen	Enough Bed Linen for all beds available
	Cooking Basics	Pots, pans, oil, salt and pepper
	Dedicated Workspace	NULL
	Dishes and Cutlery	Bowls, plates, 4 sets of utensils, cups, etc.
	Freezer	NULL
	Fridge	NULL
	Hair Dryer	NULL
	Iron	NULL
	Microwave	NULL
	Oven	NULL
	Private Entrance	NULL
	Private Parking	NULL
	Self Check-In	NULL
	TV	NULL
	WiFi	NULL

Create Booking Table

```
DROP TABLE IF EXISTS Booking;
CREATE TABLE IF NOT EXISTS Booking
(
    Booking_ID INT AUTO_INCREMENT,
    User_ID INT NOT NULL,
    Property_ID INT NOT NULL,
    check_in_date DATE NOT NULL,
    check_out_date DATE NOT NULL,
    nightly_rate DEC(10,2) NOT NULL,
    state_of_booking VARCHAR(50),
    date_of_booking DATE NOT NULL,
    CONSTRAINT pk_booking PRIMARY KEY (Booking_ID),
    CONSTRAINT fk_booking_user FOREIGN KEY (User_ID) REFERENCES Airbnb_Users(User_ID),
    CONSTRAINT fk_booking_property FOREIGN KEY (Property_ID) REFERENCES Airbnb_Rental(Property_ID),
    CONSTRAINT date_stay CHECK (check_out_date > check_in_date)
);
```

Insert Values

INSERT INTO Booking
VALUES

```
(DEFAULT, 4, 6, '2023-01-13', '2023-01-20', 225.00, 'Completed', '2022-11-23'),
(DEFAULT, 9, 6, '2023-01-23', '2023-01-30', 225.00, 'Completed', '2022-10-12'),
(DEFAULT, 11, 6, '2023-02-06', '2023-02-12', 225.00, 'Completed', '2022-12-12'),
(DEFAULT, 13, 6, '2023-02-23', '2023-03-02', 225.00, 'Completed', '2022-9-22'),
(DEFAULT, 23, 6, '2023-03-03', '2023-03-10', 225.00, 'Completed', '2022-11-28'),
(DEFAULT, 16, 10, '2023-01-14', '2023-01-20', 80.00, 'Completed', '2022-10-12'),
(DEFAULT, 21, 10, '2023-01-23', '2023-01-29', 80.00, 'Completed', '2022-11-15'),
(DEFAULT, 25, 10, '2023-02-04', '2023-02-08', 80.00, 'Completed', '2022-11-12'),
(DEFAULT, 27, 10, '2023-02-16', '2023-02-21', 82.00, 'Completed', '2023-01-15'),
(DEFAULT, 29, 10, '2023-03-03', '2023-03-11', 80.00, 'Completed', '2023-01-30'),
(DEFAULT, 4, 2, '2023-04-14', '2023-04-20', 115.00, 'Completed', '2023-02-22'),
(DEFAULT, 9, 2, '2023-04-23', '2023-04-29', 120.00, 'Completed', '2023-02-12'),
(DEFAULT, 23, 2, '2023-05-04', '2023-05-08', 120.00, 'Completed', '2023-03-28'),
(DEFAULT, 25, 2, '2023-05-16', '2023-05-21', 115.00, 'Completed', '2023-02-22'),
(DEFAULT, 16, 2, '2023-06-03', '2023-06-11', 125.00, 'Completed', '2023-03-25'),
(DEFAULT, 11, 3, '2023-04-12', '2023-04-18', 35.00, 'Completed', '2023-01-25'),
(DEFAULT, 13, 3, '2023-04-20', '2023-04-26', 34.00, 'Completed', '2023-01-12'),
(DEFAULT, 21, 3, '2023-05-02', '2023-05-07', 32.00, 'Completed', '2023-02-24'),
(DEFAULT, 27, 3, '2024-05-12', '2024-05-18', 33.00, 'Awaiting Payment', '2024-02-24'),
(DEFAULT, 29, 3, '2024-05-22', '2024-06-01', 35.00, 'Pending Approval', '2024-03-24');
```


Query: What are the booking details for Harry Wilson for Property 6?

```
USE `alexandrafarriaAIRBNB`;
SELECT au.first_name, au.last_name, p.property_name, b.booking_ID,
       b.date_of_booking, b.check_in_date, b.check_out_date
FROM Booking AS b
     JOIN Airbnb_users AS au
       ON b.User_ID=au.User_ID
     JOIN Airbnb_rental AS p
       ON b.Property_ID=p.Property_ID
WHERE p.Property_ID=6 AND au.first_name= 'Harry' AND au.last_name='Wilson';
```

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	first_name	last_name	property_name	booking_ID	date_of_booking	check_in_date	check_out_date
▶	Harry	Wilson	Entire barn conversion near Bristol	1	2022-11-23	2023-01-13	2023-01-20

Create Payment Table

```
DROP TABLE IF EXISTS Payment;
CREATE TABLE IF NOT EXISTS Payment
(
    Transaction_ID INT AUTO_INCREMENT,
    Booking_ID INT NOT NULL,
    Card_User_ID INT NOT NULL,
    Host_ID INT NOT NULL,
    Payment_Status_ID INT NOT NULL,
    total_price DEC(10,2) NOT NULL,
    payment_date TIMESTAMP,
    CONSTRAINT pk_payment PRIMARY KEY (Transaction_ID),
    CONSTRAINT fk_booking_payment FOREIGN KEY (Booking_ID) REFERENCES Booking(Booking_ID),
    CONSTRAINT fk_card_payment FOREIGN KEY (Card_User_ID) REFERENCES Card_User(Card_User_ID),
    CONSTRAINT fk_host_payment FOREIGN KEY (Host_ID) REFERENCES Airbnb_Hosts(Host_ID),
    CONSTRAINT fk_payment_status FOREIGN KEY (Payment_Status_ID) REFERENCES Payment_status(Payment_Status_ID)
);
```

Insert Values

```
INSERT INTO Payment
VALUES
(DEFAULT, 1, 2, 3, 1, 1575.00, '2022-11-29 13:23:56'),
(DEFAULT, 2, 3, 3, 1, 1575.00, '2022-10-28 03:23:36'),
(DEFAULT, 3, 4, 3, 1, 1350.00, '2023-01-02 03:33:26'),
(DEFAULT, 4, 6, 3, 1, 1575.00, '2022-10-30 23:54:36'),
(DEFAULT, 5, 10, 3, 1, 1575.00, '2022-12-02 07:23:36'),
(DEFAULT, 6, 7, 4, 1, 480.00, '2022-10-20 12:23:36'),
(DEFAULT, 7, 9, 4, 1, 480.00, '2022-12-10 16:29:36'),
(DEFAULT, 8, 13, 4, 1, 320.00, '2022-11-15 13:27:36'),
(DEFAULT, 9, 20, 4, 1, 410.00, '2023-01-20 09:23:36'),
(DEFAULT, 10, 14, 4, 1, 640.00, '2023-02-02 11:23:36'),
(DEFAULT, 11, 1, 2, 1, 690.00, '2023-02-25 03:53:36'),
(DEFAULT, 12, 3, 2, 1, 720.00, '2023-03-02 09:23:12'),
(DEFAULT, 13, 10, 2, 1, 480.00, '2023-04-01 13:52:36'),
(DEFAULT, 14, 11, 2, 1, 575.00, '2023-04-03 14:22:36'),
(DEFAULT, 15, 7, 2, 1, 1000.00, '2023-03-31 16:23:35'),
(DEFAULT, 16, 5, 2, 1, 210.00, '2023-02-01 22:23:36'),
(DEFAULT, 17, 6, 2, 1, 204.00, '2023-02-11 15:23:36'),
(DEFAULT, 18, 8, 2, 1, 160.00, '2023-03-14 18:11:36'),
(DEFAULT, 19, 16, 2, 4, 198.00, NULL),
(DEFAULT, 20, 15, 2, 4, 350.00, NULL)
;
```

Create Card_details Table

```
DROP TABLE IF EXISTS Card_details;
CREATE TABLE IF NOT EXISTS Card_details
(
    Card_ID INT AUTO_INCREMENT,
    card_number CHAR(16) NOT NULL,
    security_code CHAR(3) NOT NULL,
    name_on_card VARCHAR(75) NOT NULL,
    CONSTRAINT pk_card PRIMARY KEY (Card_ID)
);
```

Insert Values

```
INSERT INTO Card_details
VALUES
```

```
(DEFAULT, '1234567891234567', '111', 'Harry Wilson'),
(DEFAULT, '1234562783234567', '222', 'Thomas Wilson'),
(DEFAULT, '1238762783234567', '333', 'Isabella Taylor'),
(DEFAULT, '348756275534567', '367', 'Isabella Taylor'),
(DEFAULT, '1234562783299967', '456', 'Fredirick Hanson'),
(DEFAULT, '1234562783223467', '398', 'Michael Young'),
(DEFAULT, '1238888783234567', '587', 'Maria Santos'),
(DEFAULT, '7778968748434567', '367', 'Maria Santos'),
(DEFAULT, '1234562783230007', '489', 'Anna Wirth'),
(DEFAULT, '1234562783999567', '298', 'Ingrid Anderson'),
(DEFAULT, '1234562789354567', '987', 'Sophia Anderson'),
(DEFAULT, '1234562783233333', '783', 'Elena Petrova'),
(DEFAULT, '1234562728390067', '837', 'Robert Petrova'),
(DEFAULT, '1234562788834567', '232', 'Thomas Garium'),
(DEFAULT, '1234598783234567', '442', 'Carly Ingridson'),
(DEFAULT, '1234999783234567', '782', 'Nicholas Smith'),
(DEFAULT, '1234569983234567', '298', 'Andrew Packer'),
(DEFAULT, '1234562987232267', '643', 'Constance Builder'),
(DEFAULT, '1234562796234337', '665', 'Terrance Miner'),
(DEFAULT, '1234562789834877', '378', 'Zeke Kowski'),
(DEFAULT, '1234562783384567', '987', 'Joseph Anderson'),
(DEFAULT, '1234562727394567', '374', 'Emily Garium')
;
```

Create Card_User Table

```
DROP TABLE IF EXISTS Card_User;
CREATE TABLE IF NOT EXISTS Card_User
(
    Card_User_ID INT AUTO_INCREMENT,
    User_ID INT NOT NULL,
    Card_ID INT NOT NULL,
    CONSTRAINT pk_card_user PRIMARY KEY (Card_User_ID),
    CONSTRAINT fk_user_card FOREIGN KEY (User_ID) REFERENCES Airbnb_Users(User_ID),
    CONSTRAINT fk_card_user FOREIGN KEY (Card_ID) REFERENCES Card_details(Card_ID)
);
```

Insert Values

```
INSERT INTO Card_User
VALUES
```

```
(DEFAULT, 4, 1),
(DEFAULT, 4, 2),
(DEFAULT, 9, 2),
(DEFAULT, 11, 3),
(DEFAULT, 11, 4),
(DEFAULT, 13, 5),
(DEFAULT, 16, 6),
(DEFAULT, 21, 7),
(DEFAULT, 21, 8),
(DEFAULT, 23, 9),
(DEFAULT, 25, 10),
(DEFAULT, 15, 11),
(DEFAULT, 25, 11),
(DEFAULT, 29, 12),
(DEFAULT, 29, 13),
(DEFAULT, 27, 14),
(DEFAULT, 8, 15),
(DEFAULT, 5, 16),
(DEFAULT, 15, 17),
(DEFAULT, 27, 20)
;
```

Create Payment_status Table

```
DROP TABLE IF EXISTS Payment_status;
CREATE TABLE IF NOT EXISTS Payment_status
(
    Payment_Status_ID INT AUTO_INCREMENT,
    status_type VARCHAR(50) NOT NULL,
    CONSTRAINT pk_card PRIMARY KEY (Payment_Status_ID)
);
```

Insert Values

```
INSERT INTO Payment_status
VALUES
```

```
(DEFAULT, 'Paid in Full'),
(DEFAULT, 'Partial Payment'),
(DEFAULT, 'Cancelled'),
(DEFAULT, 'Pending'),
(DEFAULT, 'Refunded'),
(DEFAULT, 'Declined')
;
```

Query: What is the payment information for Booking 1 for Harry Wilson?

```
USE `alexandrafariaAIRBNB`;
SELECT pay.Booking_ID, au.first_name, au.last_name, cd.name_on_card, cd.card_number,
       cd.security_code, pay.total_price, b.date_of_booking, pay.payment_date, ps.status_type
FROM Card_User AS cu
JOIN Card_Details AS cd
  ON cd.Card_ID=cu.Card_ID
JOIN Payment AS pay
  ON pay.Card_User_ID=cu.Card_User_ID
JOIN Payment_status AS ps
  ON pay.payment_status_ID=ps.payment_status_ID
JOIN Airbnb_Users AS au
  ON au.User_ID=cu.User_ID
JOIN Booking AS b
  ON pay.booking_ID=b.booking_ID
WHERE cu.User_ID=4 AND pay.Booking_ID=1;
```

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Booking_ID	first_name	last_name	name_on_card	card_number	security_code	total_price	date_of_booking	payment_date	status_type
1	Harry	Wilson	Thomas Wilson	1234562783234567	222	1575.00	2022-11-23	2022-11-29 13:23:56	Paid in Full

Create Favorite_Properties Table

```
DROP TABLE IF EXISTS Favorite_Properties;
CREATE TABLE IF NOT EXISTS Favorite_Properties
(
    User_ID INT NOT NULL,
    Property_ID INT NOT NULL,
    CONSTRAINT fk_user_favorite FOREIGN KEY (User_ID) REFERENCES Airbnb_Users(User_ID),
    CONSTRAINT fk_property_favorite FOREIGN KEY (Property_ID) REFERENCES Airbnb_rental(Property_ID)
);
```


Insert Values

```
INSERT INTO Favorite_Properties
VALUES
    (6, 9),
    (6, 10),
    (6, 11),
    (6, 1),
    (4, 19),
    (9, 9),
    (9, 2),
    (9, 12),
    (9, 14),
    (11, 2),
    (11, 4),
    (11, 6),
    (13, 9),
    (13, 11),
    (13, 15),
    (13, 2),
    (25, 9),
    (25, 8),
    (25, 2),
    (25, 4)
;
```

Query: What are Harry's selected Favorite Properties and their names and city location?

```
USE `alexandrafarriaAIRBNB`;
SELECT p.property_ID, p.property_name, c.city_name
FROM Airbnb_rental AS p
    JOIN Property_Addresses AS pa
        ON p.Address_ID=pa.Address_ID
    JOIN Cities AS c
        ON pa.city_ID=c.city_ID
    JOIN Favorite_properties AS fp
        ON fp.property_ID=p.property_ID
WHERE fp.User_ID=6;
```

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	property_ID	property_name	city_name
▶	9	Oxford Houseboat	Oxford
	10	Lovely Studio Flat in the Center of Oxford	Oxford
	11	Entire Historical Cottage	Oxford
	1	Tiny Home in the Woods	Norwich

Create Reviews Table

```
• DROP TABLE IF EXISTS Reviews;
• CREATE TABLE IF NOT EXISTS Reviews
(
    Review_ID INT AUTO_INCREMENT,
    Guest_ID INT NOT NULL,
    Host_ID INT NOT NULL,
    rating_of_guest INT,
    rating_of_host INT,
    review_of_guest TEXT,
    review_of_host TEXT,
    check_out_date DATE NOT NULL,
    CONSTRAINT pk_review PRIMARY KEY (Review_ID),
    CONSTRAINT fk_guest FOREIGN KEY (Guest_ID) REFERENCES Airbnb_Users(User_ID),
    CONSTRAINT fk_host_review FOREIGN KEY (Host_ID) REFERENCES Airbnb_Hosts(Host_ID),
    CONSTRAINT host_rating CHECK (rating_of_host >= 1 AND rating_of_host <= 5),
    CONSTRAINT guest_rating CHECK (rating_of_guest >= 1 AND rating_of_guest <= 5)
);
```

Insert Values

```
INSERT INTO Reviews
VALUES
(DEFAULT, 4, 3, 5, 5, 'John was a delight to have. He is welcome back any time.',
    'Lily was a tremendous host. She great suggestions for places to visit!', '2023-01-20'),
(DEFAULT, 9, 3, 5, 5, 'Charlie was a very polite guest.',
    'Host was super helpful.', '2023-01-30'),
(DEFAULT, 11, 3, 5, 5, 'Isabella was punctual and tidy.',
    'The host was kind and easy to talk to.', '2023-02-12'),
(DEFAULT, 13, 3, 5, NULL, 'Freddy and his friends are welcome back any time.', NULL, '2023-03-02'),
(DEFAULT, 23, 3, 5, 5, 'Anna was a pleasure to have.',
    'The host was very accomodating during our stay.', '2023-03-10'),
(DEFAULT, 16, 4, 5, NULL, 'Michael and his family were lovely.', NULL, '2023-01-14'),
(DEFAULT, 21, 4, 5, 5, 'Please come again!',
    'The host let us arrive a little early. Grateful for the stay!', '2023-01-29'),
(DEFAULT, 25, 4, 5, 5, 'Hans kept everything tidy and organized.',
    'The host helped us out with restaurant recomendations. Great place.', '2023-02-08'),
(DEFAULT, 27, 4, 5, NULL, 'Lea was a respectful guest', NULL, '2023-02-21'),
(DEFAULT, 29, 4, 5, NULL, 'Elena is welcome back any time.', NULL, '2023-03-11'),
(DEFAULT, 4, 2, 5, 5, 'John was a respectful house guest.',
    'Host did a great job with supplying everything we needed.', '2023-04-20'),
(DEFAULT, 9, 2, NULL, 5, NULL, 'The host provided everything we needed.', '2023-04-29'),
(DEFAULT, 23, 2, 5, 4, 'Anna was kind and considerate.',
    'The host did not allow us to drop our bags off early. Otherwise great stay.', '2023-05-08'),
(DEFAULT, 25, 2, 5, 5, 'Lovely family. Appreciated the ease of communication.',
    'Great communication.', '2023-05-21'),
(DEFAULT, 16, 2, 5, 4, 'There was a mix up with the booking, and Michael was accomodating.',
    'The host notified us after our arrival that there was still a family there. Not impressed.', '2023-06-11'),
(DEFAULT, 11, 2, NULL, 5, NULL, 'The host eaasy to communicate with and helped us with our stay.', '2023-04-12'),
(DEFAULT, 13, 2, 5, NULL, 'Freddy was a respectful house guest.', NULL, '2023-04-26'),
(DEFAULT, 21, 2, 5, 5, 'Maria was very tidy and quiet.',
    'Host was fine.', '2023-05-07'),
(DEFAULT, 6, 2, 5, 5, 'Mia was kind and curtiuous.',
    'Everything went as expected.', '2022-05-07'),
(DEFAULT, 17, 2, 5, 5, 'Ben is welcome back any time.',
    'Great!', '2022-03-27')
;
```

Create Property_Reviews Table

```
DROP TABLE IF EXISTS Property_Reviews;
CREATE TABLE IF NOT EXISTS Property_Reviews
(
    Prop_Review_ID INT AUTO_INCREMENT,
    User_ID INT NOT NULL,
    Property_ID INT NOT NULL,
    rating_of_property INT NOT NULL,
    review_of_property TEXT NOT NULL,
    check_out_date DATE NOT NULL,
    CONSTRAINT pk_prop_review PRIMARY KEY (Prop_Review_ID),
    CONSTRAINT fk_user_review FOREIGN KEY (User_ID) REFERENCES Airbnb_Users(User_ID),
    CONSTRAINT fk_property_review FOREIGN KEY (Property_ID) REFERENCES Airbnb_rental(Property_ID),
    CONSTRAINT prop_rating CHECK (rating_of_property >= 1 AND rating_of_property <= 5)
);
```

Insert Values

```
INSERT INTO Property_Reviews
VALUES
```

```
(DEFAULT, 4, 6, 4,
'Really enjoyed our stay. The description was spot on. Very clean and great location',
'2023-01-20'),
(DEFAULT, 9, 6, 5,
'Lovely Airbnb. Exactly what we needed with all the right amenities.',
'2023-01-30'),
(DEFAULT, 11, 6, 3,
'We were expecting a bit more for our money. The property was average.',
'2023-02-06'),
(DEFAULT, 13, 6, 5,
'We loved the garden and the sheep! Great place',
'2023-03-02'),
(DEFAULT, 23, 6, 5,
'Such an idyllic location. Loved the barn conversion and beautiful landscape.',
'2023-03-10'),
(DEFAULT, 16, 10, 5,
'Such a cozy flat in Oxford. Perfect location near all the best spots. Lovely decor.',
'2023-01-20'),
(DEFAULT, 21, 10, 5,
'Perfect spot in Oxford. Had everything we needed. What a cute little place.',
'2023-01-29'),
(DEFAULT, 25, 10, 5,
'Great value for money. I would definitely stay here again. Peaceful location even though its centrally located.',
'2023-02-08'),
(DEFAULT, 27, 10, 3,
'Not really what i was expecting. I was hoping for a bigger location. This was too small.',
'2023-02-21'),
(DEFAULT, 29, 10, 5,
'My favorite place to stay in Oxford. I would move here if I could! Such a great spot. And super clean!',
'2023-03-11'),
```

```
(DEFAULT, 4, 2, 5,
'What an incredible place to stay. Such a perfect place to holiday if you want to get away from it all.',
'2023-04-20'),
(DEFAULT, 9, 2, 5,
'I loved our stay. Will definitely be back. Such a unique experience to be so far away in a cool house.',
'2023-04-29'),
(DEFAULT, 23, 2, 4,
'A really cool location in unique house. However it could have been cleaner and been better stocked.',
'2023-05-08'),
(DEFAULT, 25, 2, 5,
'I love this place. I would come back every year if I could! The building is beautiful and great to escape the city.',
'2023-05-21'),
(DEFAULT, 16, 2, 4,
'Stay was great over all, however could have been cleaner.',
'2023-06-11'),
(DEFAULT, 11, 3, 5,
'Could not ask for more for such a cheap price! Such a great little bed and breakfast. Super location!',
'2023-04-18'),
(DEFAULT, 13, 3, 5,
'Great value and perfect spot. Breakfast was lovely every day.',
'2023-04-26'),
(DEFAULT, 21, 3, 5,
'We come back every year, and it is always such a great value.',
'2023-05-07'),
(DEFAULT, 6, 3, 5,
'Lovely bed and breakfast. Thank you for the great stay!',
'2022-05-07'),
(DEFAULT, 17, 3, 5,
'Great value for the service provided!',
'2022-03-27')
;
```


Query: What is the average rating of Property 6?

```
USE `alexandrafarriaAIRBNB`;
SELECT pr.property_ID, AVG(pr.rating_of_property) AS Average_Rating
FROM Property_Reviews AS pr
      JOIN Airbnb_Rental AS p
        ON pr.Property_ID=p.Property_ID
GROUP BY pr.Property_ID
HAVING pr.property_ID= 6
;
```

RESULT



	property_ID	Average_Rating
▶	6	4.4000

Query: What were the ratings and reviews for Harry's stay at property 6 with check-out on '2023-01-20'?

```
USE `alexandrafarriaAIRBNB`;
SELECT pr.check_out_date, pr.rating_of_property AS property_rating, pr.review_of_property,
      r.rating_of_guest, r.review_of_guest, r.rating_of_host, r.review_of_host
FROM Property_Reviews AS pr
      JOIN Airbnb_Rental AS p
        ON pr.Property_ID=p.Property_ID
      JOIN Reviews AS r
        ON r.check_out_date=pr.check_out_date
WHERE r.check_out_date='2023-01-20' AND p.Property_ID=6;
```

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	check_out_date	property_rating	review_of_property	rating_of_guest	review_of_guest	rating_of_host	review_of_host
▶	2023-01-20	4	Really enjoyed our stay. The description was spot on. Very clean and great location	5	John was a delight to have. He is welcome back...	5	Lily was a tremendous host. She provided great suggestions for places to visit!

References

1. Syrikova, T. (2020). *White Ceramic Mug on Brown Wooden Table* [Photograph]. Pexels. <https://www.pexels.com/photo/white-ceramic-mug-on-brown-wooden-table-3933278/>.
2. Models, B. (n.d.). *Man Wearing Black and Grey Striped Blazer* [Photograph]. Pexels. <https://www.pexels.com/photo/man-wearing-black-and-grey-striped-blazer-2282520/>. Retrieved April 8, 2024.
3. Piacquadio, A. (n.d.). *Woman in Collared Shirt* [Photograph]. Pexels. <https://www.pexels.com/photo/woman-in-collared-shirt-774909/>. Retrieved April 8, 2024.
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5. ATBO. (2015). *Brown, White, and Blue Wooden Board* [Photograph]. Pexels. <https://www.pexels.com/photo/brown-white-and-blue-wooden-board-245208/>.

*Photos referenced in order of appearance.