1. What are the top 5 hotels by average cleanliness rating according to user reviews?

 ${\sf SELECT\ Hotels. HotelName,\ AVG (HotelReviews. Clean liness)\ as\ AvgClean liness}$

FROM Hotels

JOIN HotelReviews ON Hotels. HotelId = HotelReviews. HotelId

GROUP BY Hotels. HotelName

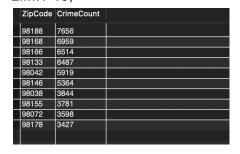
ORDER BY AvgCleanliness DESC

LIMIT 5;

HotelName	AvgCleanliness	
University Plaza Hotel	4.900000095367432	
Holiday Inn Express Hotel & Suites North Seattl	4.900000095367432	
University Motel Suites	4.800000190734863	
Italia Motel	4.800000190734863	
Travelodge Seattle by the Space Needle	4.699999809265137	

2. What are the top 10 crimes by zip code?

SELECT ZipCode, COUNT(*) AS CrimeCount FROM Crimes GROUP BY ZipCode ORDER BY CrimeCount DESC LIMIT 10;



3. Which restaurants have the highest average food quality rating?

SELECT Restaurants.RestaurantName, AVG(RestaurantReviews.food_quality) as AvgFoodQuality FROM Restaurants

JOIN RestaurantReviews ON Restaurants.RestaurantId = RestaurantReviews.RestaurantID GROUP BY Restaurants.RestaurantName

ORDER BY AvgFoodQuality DESC;

RestaurantName	AvgFoodQuality
Mariscos Culiacan	4.70000
The Cheesecake Factory - Lynnwood	4.60000
IHOP	4.30000
El Charro Mexican Restaurant	4.05000
Tides	3.00000
Azteca Mexican Restaurant	2.50000
STK Steakhouse Bellevue	1.80000
Buffalo Wild Wings	1.70000

4. Average rating of each hotel

SELECT HotelReviews.HotelId, Hotels.HotelName, AVG(Reviews.Rating) AS AverageRating FROM Reviews

JOIN HotelReviews ON Reviews.ReviewId = HotelReviews.ReviewId

LEFT JOIN Hotels ON Hotels.HotelId = HotelReviews.HotelId

GROUP BY Hotelld

ORDER BY AVG(Reviews.Rating)

sult Grid	Filter Rows: Q Search	Export:
Hotelld	HotelName	AverageRating
3695	Doubletree by Hilton Seattle Airport	1.00000
3801	The Fairmont Olympic Seattle	1.10000
3697	Four Points by Sheraton Downtown Seattle Cen	1.30000
3698	Hotel Max	1.30000
3754	Red Roof Inn Seattle Airport - SEATAC	1.30000
3806	The Maxwell Hotel Seattle	1.35000
3760	University Motel Suites	1.40000
3763	Embassy Suites Seattle - Tacoma International	1.65000
3714	Aurora Nites Inn Motel	1.70000
3788	Ace Hotel	1.80000
3719	Star Motel	1.80000
3807	The Sorrento Hotel	1.90000
3774	Hotel Five Seattle	1.90000
3752	Holiday Inn Express Hotel & Suites North Seattl	1.90000
3786	Hotel Deca, Seattle	2.00000
3749	Extended Stay America - Seattle - Northgate	2.00000
3731	Commodore Hotel	2.05000
3707	Marriott Seattle Sea-Tac Airport	2.20000
3733	Continental Plaza Seattle	2.50000
3781	Roosevelt Hotel	2.56667
3809	Four Seasons Hotel Seattle	2.60000
3722	Hotel Seattle	2.60000
3741	Days Inn South Seattle	2.75000
3702	The Grove, West Seattle Inn	2.75000
3759	Holiday Inn Express Seattle City Center	2.80000
3787	Silver Cloud Hotel - Broadway	2.80000
3784	Homewood Suites Seattle Convention Center Pi	2.93333
3730	Baroness Hotel	2.95000
3746	Sunhill Motel	3.00000
3798	Hyatt At Olive 8	3.00000
3717	Aero Motel	3.05000
3712	National at Archstone Belltown	3.10000

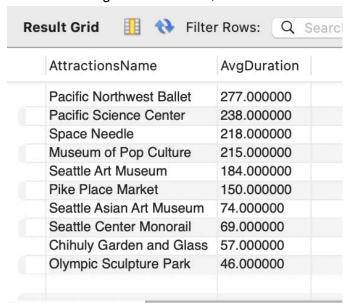
5. What is the average duration visitors spend at attractions, sorted by the attraction's overall rating?

SELECT Attractions.Name, AVG(CAST(AttractionReviews.duration AS DECIMAL(10,2))) as AvgDuration

FROM Attractions

JOIN AttractionReviews ON Attractions.AttractionId = AttractionReviews.AttractionID GROUP BY Attractions.Name

ORDER BY AvgDuration DESC;



6. How has the average hotel review rating trended over the last year by month?

SELECT YEAR(Reviews.CreatedTime) as Year, MONTH(Reviews.CreatedTime) as Month, AVG(Reviews.Rating) as AvgRating

FROM Reviews

JOIN HotelReviews ON Reviews.ReviewId = HotelReviews.ReviewId
WHERE Reviews.CreatedTime >= DATE_SUB(CURDATE(), INTERVAL 1 YEAR)
GROUP BY Year, Month

ORDER BY Year, Month;



7.Top 10 users who have made the most reviews?

SELECT UserName, COUNT(*) AS ReviewCount FROM Reviews GROUP BY UserName ORDER BY ReviewCount DESC LIMIT 10;

	UserName	ReviewCount	
	Username	ReviewCount	
	james67	5	
	munozjeffrey	4	
	vkirk	4	
	shelley06	4	
	vargaskarla	4	
	dennisallen	4	
	rcox	4	
	sarah84	4	
	kyleortega	4	
	tsanchez	3	
670			

8. Which users use more than one credit card?

SELECT UserName, COUNT(*) AS CardCount FROM CreditCards GROUP BY UserName HAVING CardCount > 1;

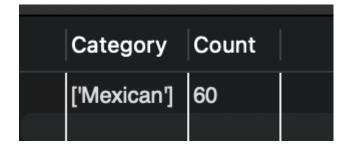
UserName	CardCount	
cody52	2	
dennisroberson	2	
grantmichelle	2	
jamesthornton	2	
joel93	2	
kenneth39	2	
kenneth41	2	
mullinscory	2	
phillipchen	2	
reevesgregory	2	

FROM Reviews GROUP BY MONTH(createdTime) ORDER BY ReviewCount DESC;

Month	ReviewCount	
6	16	
7	16	
9	14	
1	12	
8	11	
2	10	
11	9	
3	8	
10	7	
12	6	
4	5	
5	5	

10. What is the most common category of restaurants reviewed?

SELECT Category, COUNT(*) AS Count FROM Restaurants GROUP BY Category ORDER BY Count DESC LIMIT 1;



CREATE SCHEMA IF NOT EXISTS SeattleTravelKit; USE SeattleTravelKit;

DROP TABLE IF EXISTS HotelReviews;

DROP TABLE IF EXISTS Hotels;

DROP TABLE IF EXISTS Reviews:

DROP TABLE IF EXISTS RestaurantReviews;

DROP TABLE IF EXISTS AttractionReviews;

DROP TABLE IF EXISTS Attractions;

DROP TABLE IF EXISTS Crimes;

```
DROP TABLE IF EXISTS Restaurants;
DROP TABLE IF EXISTS Address;
DROP TABLE IF EXISTS CreditCards:
DROP TABLE IF EXISTS Users;
CREATE TABLE Hotels (
  Hotelld INT NOT NULL auto increment,
  HotelName VARCHAR(255),
  Rating DECIMAL(3, 2),
  Website VARCHAR(255),
  Phone VARCHAR(20),
  Details TEXT,
  Address TEXT,
  PostalCode VARCHAR(20),
  City VARCHAR(255),
  CONSTRAINT pk_Hotels_HotelId PRIMARY KEY (HotelId)
);
 CREATE TABLE HotelReviews (
  Reviewld INT PRIMARY KEY,
  Hotelld INT,
  Service FLOAT,
  Cleanliness FLOAT,
  Location FLOAT,
  SleepQuality FLOAT,
  CONSTRAINT fk_HotelReviews_HotelId FOREIGN KEY (HotelId)
            REFERENCES Hotels (HotelId)
            ON UPDATE CASCADE ON DELETE CASCADE
);
CREATE TABLE Attractions (
  AttractionId INT AUTO INCREMENT PRIMARY KEY,
  AttractionsName VARCHAR(255),
  Phone VARCHAR(50),
  Website VARCHAR(2048),
  PostalCode VARCHAR(20),
  Area VARCHAR(255)
);
CREATE TABLE Reviews (
  Reviewld INT PRIMARY KEY,
  UserName VARCHAR(255) NOT NULL,
  CreatedTime TIMESTAMP NOT NULL,
  Content TEXT NOT NULL,
  Rating DECIMAL(3, 1) NOT NULL
```

```
);
CREATE TABLE RestaurantReviews (
  reviewID INT PRIMARY KEY,
  RestaurantID INT NOT NULL,
  service DECIMAL(2,1) NOT NULL,
  food quality DECIMAL(2,1) NOT NULL,
  Operation_time VARCHAR(11) NOT NULL
);
CREATE TABLE AttractionReviews (
  reviewID INT NOT NULL,
  AttractionID INT NOT NULL,
  duration VARCHAR(15) NOT NULL,
  PRIMARY KEY (reviewID, AttractionID)
);
CREATE TABLE Crimes (
  CaseNumber VARCHAR(50),
  CreatedDateTime DATETIME,
  Address VARCHAR(255),
  ZipCode VARCHAR(10),
 CONSTRAINT pk Crimes CaseNumber PRIMARY KEY (CaseNumber)
);
CREATE TABLE Restaurants (
  RestaurantID INT NOT NULL AUTO_INCREMENT,
  RestaurantName VARCHAR(255),
  Address TEXT,
  Rating DECIMAL(3, 2),
  Area VARCHAR(255),
  Category VARCHAR(255), -- Changed from ENUM to VARCHAR for broader compatibility
  Service TEXT,
  ZipCode VARCHAR(10),
  CONSTRAINT pk_Restaurants_RestaurantID PRIMARY KEY (RestaurantID)
);
CREATE TABLE IF NOT EXISTS Users (
  UserName VARCHAR(50) UNIQUE,
  Email VARCHAR(100) UNIQUE,
  Password VARCHAR(255),
  FirstName VARCHAR(50),
  LastName VARCHAR(50),
  Phone VARCHAR(20),
  CONSTRAINT pk_Users_UserName PRIMARY KEY (UserName)
```

```
CREATE TABLE IF NOT EXISTS Address (
  UserName VARCHAR(255),
  City VARCHAR(255),
  Street1 VARCHAR(255),
  Street2 VARCHAR(255),
  State VARCHAR(255),
  ZipCode VARCHAR(20),
  Country VARCHAR(255),
  CONSTRAINT pk Address UserName PRIMARY KEY (UserName),
  CONSTRAINT fk Address UserName FOREIGN KEY (UserName)
    REFERENCES Users (UserName)
    ON UPDATE CASCADE ON DELETE CASCADE
);
CREATE TABLE CreditCards (
 UserName VARCHAR(255),
  CardNumber BIGINT NOT NULL,
  Expiration VARCHAR(5),
  CONSTRAINT pk_CreditCard_CardNumber PRIMARY KEY (CardNumber),
  CONSTRAINT fk CreditCard UserName FOREIGN KEY (UserName)
    REFERENCES Users (UserName)
    ON UPDATE CASCADE ON DELETE CASCADE
);
LOAD DATA LOCAL INFILE '/Users/a123/Desktop/5200/PM2/Hotels.csv' INTO TABLE Hotels
 FIELDS TERMINATED BY '.' ENCLOSED BY '\"
 LINES TERMINATED BY '\n'
 IGNORE 1 LINES
 (HotelName, Rating, Website, Phone, Details, Address, PostalCode, City);
LOAD DATA LOCAL INFILE "/Users/a123/Desktop/5200/PM2/HotelReviews.csv" INTO TABLE
HotelReviews
 FIELDS TERMINATED BY ',' OPTIONALLY ENCLOSED BY '\"
 LINES TERMINATED BY '\n'
 IGNORE 1 LINES
 (ReviewId, HotelId, Service, Cleanliness, Location, SleepQuality);
LOAD DATA LOCAL INFILE '/Users/a123/Desktop/5200/PM2/Reviews.csv' INTO TABLE Reviews
      FIELDS TERMINATED BY ',' ENCLOSED BY ""
      LINES TERMINATED BY '\n'
      IGNORE 1 LINES
      (ReviewId, UserName, CreatedTime, Content, Rating);
```

);

LOAD DATA LOCAL INFILE '/Users/a123/Desktop/5200/PM2/RestaurantReviews.csv' INTO TABLE RestaurantReviews

FIELDS TERMINATED BY ',' ENCLOSED BY ""

LINES TERMINATED BY '\n'

IGNORE 1 LINES

(ReviewId, RestaurantID, service, food_quality, Operation_time);

LOAD DATA LOCAL INFILE '/Users/a123/Desktop/5200/PM2/Reviews.csv' INTO TABLE Reviews

FIELDS TERMINATED BY ',' ENCLOSED BY ""

LINES TERMINATED BY '\n'

IGNORE 1 LINES

(ReviewId, UserName, CreatedTime, Content, Rating);

LOAD DATA LOCAL INFILE '/Users/a123/Desktop/5200/PM2/RestaurantReviews.csv' INTO TABLE RestaurantReviews

FIELDS TERMINATED BY ',' ENCLOSED BY ""

LINES TERMINATED BY '\n'

IGNORE 1 LINES

(reviewID,RestaurantID,service,food_quality,Operation_time);

LOAD DATA LOCAL INFILE '/Users/a123/Desktop/5200/PM2/Attractions.csv' INTO TABLE Attractions

FIELDS TERMINATED BY ',' ENCLOSED BY ""

LINES TERMINATED BY '\n'

IGNORE 1 ROWS

(AttractionsName, Phone, Website, PostalCode, Area);

LOAD DATA LOCAL INFILE '/Users/a123/Desktop/5200/PM2/AttractionReviews.csv' INTO TABLE AttractionReviews

FIELDS TERMINATED BY ',' ENCLOSED BY ""

LINES TERMINATED BY '\n'

IGNORE 1 LINES

(reviewID, AttractionID, duration);

LOAD DATA LOCAL INFILE "/Users/a123/Desktop/5200/PM2/Crimes.csv" INTO TABLE Crimes

FIELDS TERMINATED BY ',' OPTIONALLY ENCLOSED BY '\"

LINES TERMINATED BY '\n'

IGNORE 1 LINES

(CaseNumber, CreatedDateTime, Address, ZipCode);

LOAD DATA LOCAL INFILE "/Users/a123/Desktop/5200/PM2/Restaurants.csv" INTO TABLE Restaurants

FIELDS TERMINATED BY ',' OPTIONALLY ENCLOSED BY '\"

LINES TERMINATED BY '\n'

IGNORE 1 LINES;

LOAD DATA LOCAL INFILE '/Users/a123/Desktop/5200/PM2/Users.csv' INTO TABLE Users

FIELDS TERMINATED BY ',' ENCLOSED BY ""

LINES TERMINATED BY '\n'

IGNORE 1 ROWS;

LOAD DATA LOCAL INFILE '/Users/a123/Desktop/5200/PM2/Address.csv' INTO TABLE Address FIELDS TERMINATED BY ',' ENCLOSED BY ""
LINES TERMINATED BY '\n'
IGNORE 1 ROWS;

LOAD DATA LOCAL INFILE '/Users/a123/Desktop/5200/PM2/CreditCards.csv' INTO TABLE CreditCards

FIELDS TERMINATED BY ',' ENCLOSED BY "" LINES TERMINATED BY '\n' IGNORE 1 ROWS;