COFFEE RECOMMENDATION SYSTEM

Objective:

The coffee recommendation system is to provide personalized and relevant coffee suggestions to users based on their preferences, tastes, and previous interactions with coffee products. Such systems are designed to enhance the user experience by offering tailored coffee choices, which can lead to increased customer satisfaction and loyalty for coffee businesses.

Goals:

- Personalization
- Improve User Engagement
- Enhanced Customer Experience
- Increase Sales and Revenue

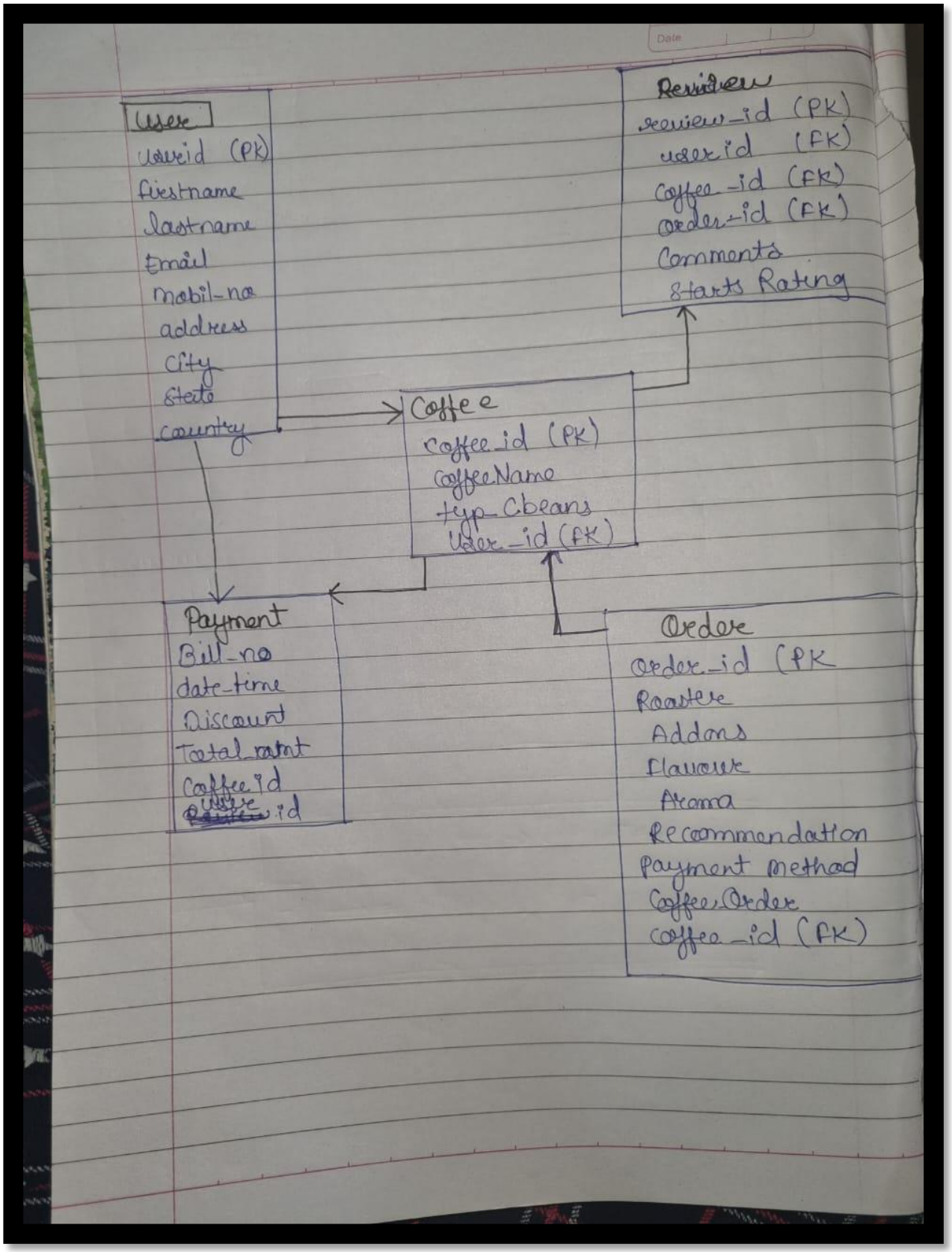
Future vision:

The future vision of coffee recommendation systems is promising, with advancements in AI, machine learning, voice interfaces, and IoT integration. These future developments will enable even more accurate, multimodal, and interactive recommendations, making the coffee experience more seamless and enjoyable for users. Additionally, an emphasis on ethical and sustainable coffee recommendations will align with the increasing demand for responsible consumer choices.

Conclusion:

In conclusion, coffee recommendation systems play a crucial role in enhancing the coffee discovery journey for users and driving growth in the coffee industry. These systems leverage artificial intelligence, machine learning, and user data to provide personalized and relevant coffee suggestions based on individual preferences, tastes, and behaviour. By understanding user preferences, such systems can offer tailored coffee choices, leading to increased customer satisfaction, engagement, and loyalty.

ER Diagram:


User
user id (PK)
firstname
lastname
Email
mobil-no
address
City
State
country
Review
review_id (PK)
user id (FK)
Coffee_id (FK)
order_id (FK)
Comments
Starts Rating
Coffee
Coffee_id (PK)
CoffeeName
typ_Cbeans
User_id (FK)
Payment
Bill_no
date_time
Discount
Total_amnt
Coffee id
User id
Order
Order_id (PK
Roaster
Addons
Flavour
Aroma
Recommendation
Payment method
Coffee_Order
coffee_id (FK)

use dataset;

CREATE TABLE User(User_id INT PRIMARY KEY,

first_name VARCHAR(50) NOT NULL, last_name VARCHAR(50) NOT NULL,

Email VARCHAR(100) NOT NULL, Mobil_no VARCHAR(15) NOT NULL,

address VARCHAR(200),city VARCHAR(50),

state VARCHAR(50),country VARCHAR(50));

INSERT INTO user (user_id, first_name, last_name, email, Mobil_no, address, city, state, country)

VALUES

(01, 'reeyansh', 'humne', 'reeyu@gmail.com', '12345890', 'jaipur', 'jaipur', 'Rajasthan', 'India'),

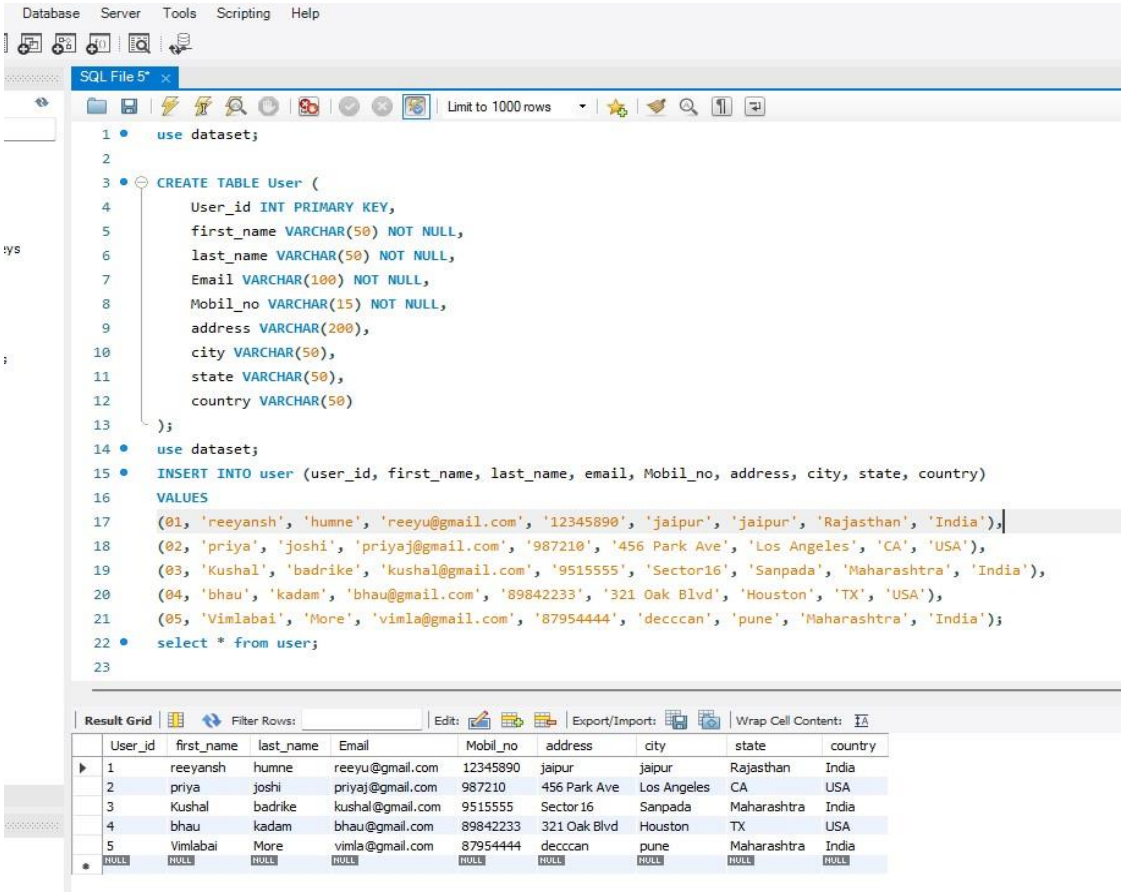
(02, 'priya', 'joshi', 'priyaj@gmail.com', '987210', '456 Park Ave', 'Los Angeles', 'CA', 'USA'),

(03, 'Kushal', 'badrike', 'kushal@gmail.com', '9515555', 'Sector16', 'Sanpada', 'Maharashtra', 'India'),

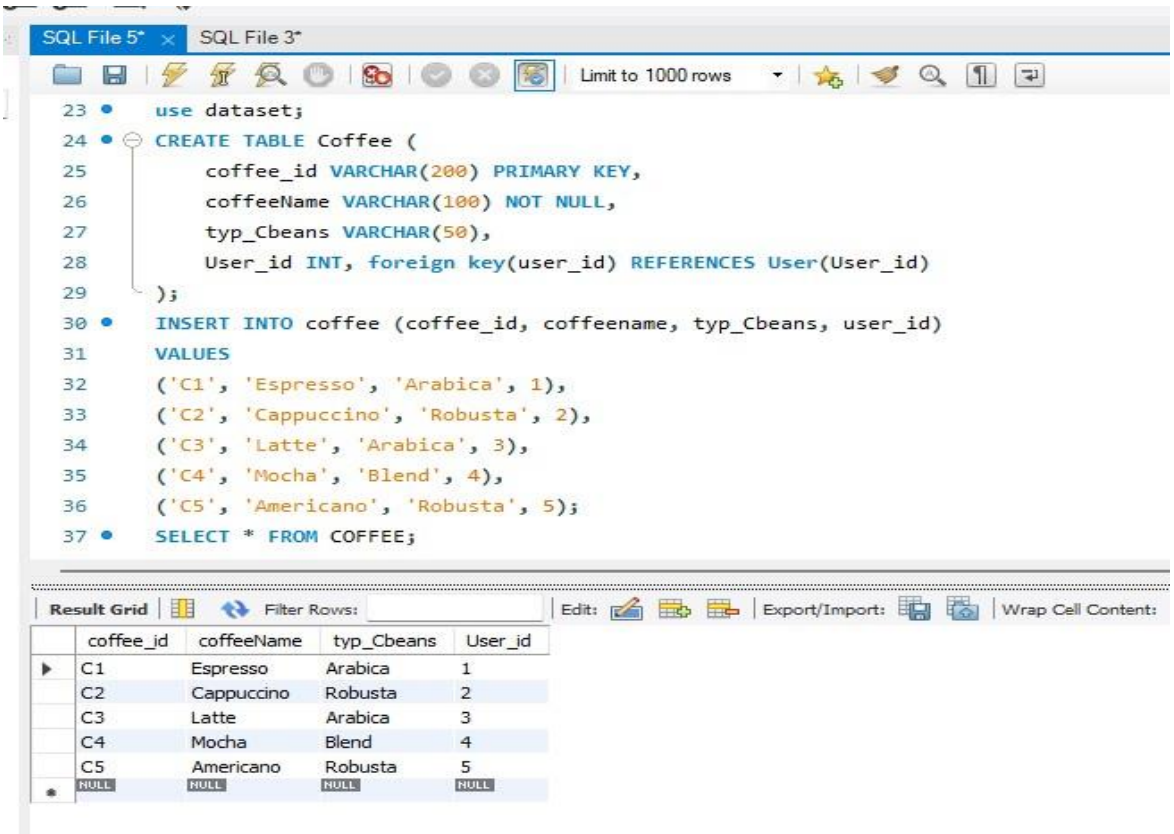
(04, 'bhau', 'kadam', 'bhau@gmail.com', '89842233', '321 Oak Blvd', 'Houston', 'TX', 'USA'),

(05, 'Vimlabai', 'More', 'vimla@gmail.com', '87954444', 'decccan', 'pune', 'Maharashtra', 'India');

select * from user;



```
CREATE TABLE Coffee (
   coffee_id VARCHAR(200)  PRIMARY KEY,
   coffeeName VARCHAR(100)  NOT NULL,
   typ_Cbeans VARCHAR(50),
   User_id INT, foreign key(user_id)  REFERENCES User(User_id)
);
INSERT INTO coffee (coffee_id, coffeename, typ_Cbeans, user_id)
VALUES
('C1', 'Espresso', 'Arabica', 1),
('C2', 'Cappuccino', 'Robusta', 2),
('C3', 'Latte', 'Arabica', 3),
('C4', 'Mocha', 'Blend', 4),
('C5', 'Americano', 'Robusta', 5);
SELECT * FROM COFFEE;
```



CREATE TABLE Orders (order_id INT PRIMARY KEY, Coffee_id VARCHAR(200),

FOREIGN KEY (coffee_id) REFERENCES coffee(coffee_id),

Roaster VARCHAR(100), Addons VARCHAR(100), Flavours VARCHAR(50), Aroma VARCHAR(50),

Recommendation VARCHAR(200), payment_Method varchar(100), Coffee_order VARCHAR(100));

INSERT INTO Orders (order_id, Coffee_id, Roaster, Addons, Flavours, Aroma,payment_Method, Coffee_order,Recommendation)

VALUES

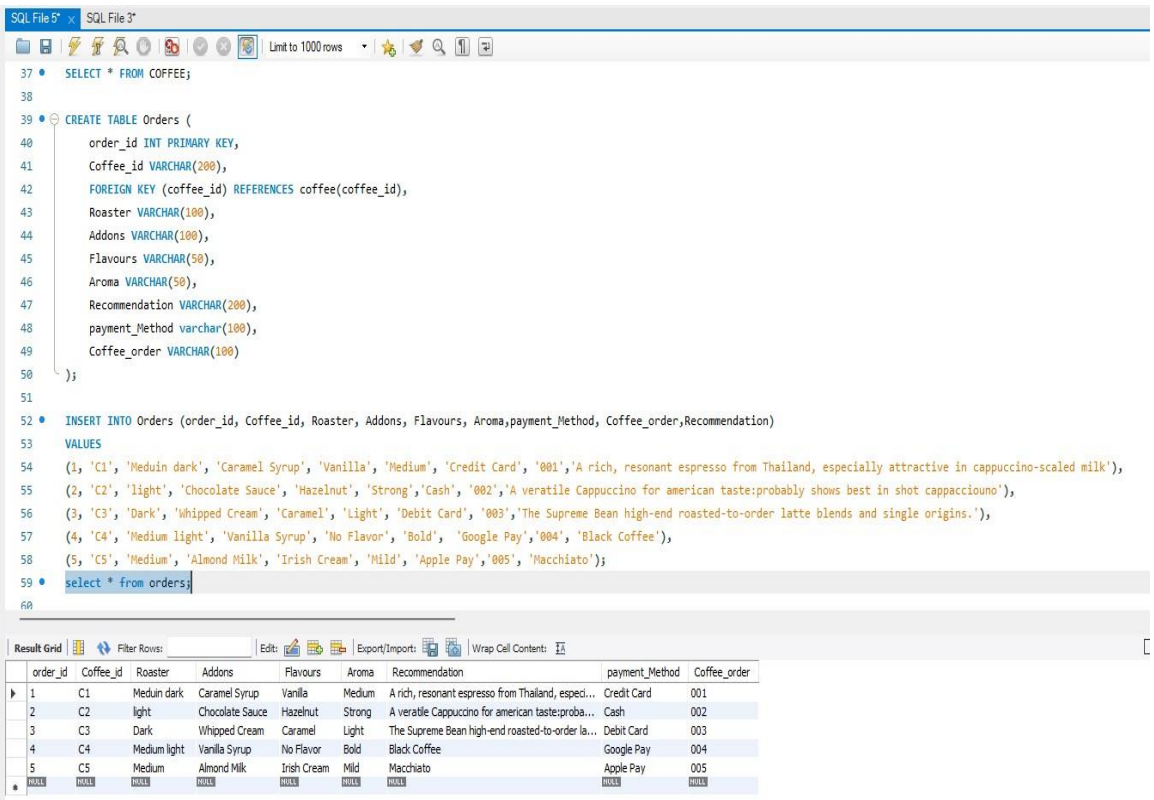
(1, 'C1', 'Meduin dark', 'Caramel Syrup', 'Vanilla', 'Medium', 'Credit Card', '001','A rich, resonant espresso from Thailand, especially attractive in cappuccino-scaled milk'),

(2, 'C2', 'light', 'Chocolate Sauce', 'Hazelnut', 'Strong','Cash', '002','A veratile Cappuccino for american taste:probably shows best in shot cappaccciouno'),

(3, 'C3', 'Dark', 'Whipped Cream', 'Caramel', 'Light', 'Debit Card', '003','The Supreme Bean high-end roasted-to-order latte blends and single origins.'),

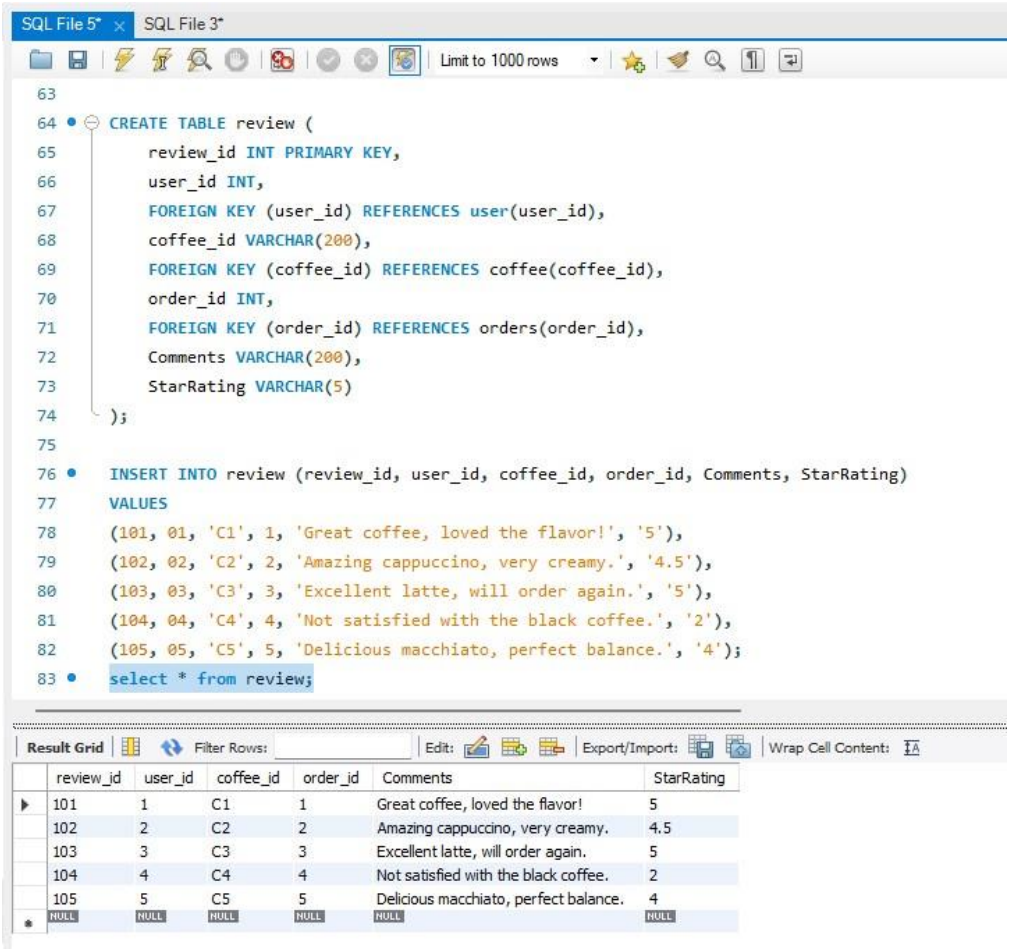
(4, 'C4', 'Medium light', 'Vanilla Syrup', 'No Flavor', 'Bold', 'Google Pay','004', 'Black Coffee'),

(5, 'C5', 'Medium', 'Almond Milk', 'Irish Cream', 'Mild', 'Apple Pay','005', 'Macchiato');



order_id	Coffee_id	Roaster	Addons	Flavours	Aroma	Recommendation	payment_Method	Coffee_order
1	C1	Meduin dark	Caramel Syrup	Vanilla	Medium	A rich, resonant espresso from Thailand, especi...	Credit Card	001
2	C2	light	Chocolate Sauce	Hazelnut	Strong	A veratile Cappuccino for american taste:proba...	Cash	002
3	C3	Dark	Whipped Cream	Caramel	Light	The Supreme Bean high-end roasted-to-order la...	Debit Card	003
4	C4	Medium light	Vanilla Syrup	No Flavor	Bold	Black Coffee	Google Pay	004
5	C5	Medium	Almond Milk	Irish Cream	Mild	Macchiato	Apple Pay	005
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

```
CREATE TABLE review (review_id INT PRIMARY KEY, user_id INT,
   FOREIGN KEY (user_id) REFERENCES user(user_id),
   coffee_id VARCHAR(200), FOREIGN KEY (coffee_id) REFERENCES coffee(coffee_id),
   order_id INT,FOREIGN KEY (order_id) REFERENCES orders(order_id),
   Comments VARCHAR(200), StarRating VARCHAR(5));
INSERT INTO review (review_id, user_id, coffee_id, order_id, Comments, StarRating)
VALUES
(101, 01, 'C1', 1, 'Great coffee, loved the flavor!', '5'),
(102, 02, 'C2', 2, 'Amazing cappuccino, very creamy.', '4.5'),
(103, 03, 'C3', 3, 'Excellent latte, will order again.', '5'),
(104, 04, 'C4', 4, 'Not satisfied with the black coffee.', '2'),
(105, 05, 'C5', 5, 'Delicious macchiato, perfect balance.', '4');
select * from review;
```



review_id	user_id	coffee_id	order_id	Comments	StarRating
101	1	C1	1	Great coffee, loved the flavor!	5
102	2	C2	2	Amazing cappuccino, very creamy.	4.5
103	3	C3	3	Excellent latte, will order again.	5
104	4	C4	4	Not satisfied with the black coffee.	2
105	5	C5	5	Delicious macchiato, perfect balance.	4
NULL	NULL	NULL	NULL	NULL	NULL

```
CREATE TABLE Payment (Billno INT PRIMARY KEY, coffee_id VARCHAR(200),
   FOREIGN KEY (coffee_id) REFERENCES coffee(coffee_id),
   date_and_time DATETIME NOT NULL,Discount DECIMAL(10, 2),Total_amount DECIMAL(10, 2),
   review_id INT,
   FOREIGN KEY (review_id) REFERENCES review(review_id)
);
INSERT INTO Payment (Billno, coffee_id, date_and_time, Discount, Total_amount, review_id)
VALUES
(1001, 'C1', '2023-07-18 15:30:00', 10.00, 550.00, 101),
(2002, 'C2', '2023-07-18 16:45:00', 5.00, 445.00, 102),
(3003, 'C3', '2023-07-18 14:15:00', 8.50, 442.50, 103),
(4004, 'C4', '2023-07-18 17:00:00', 15.00, 885.00, 104),
(5005, 'C5', '2023-07-18 12:00:00', 12.25, 552.75, 105);
select * from payment;
```