



CIS 321 PROJECT MILESTONE (2): Mapped Tables Filled With data and SQL Query Statements

CIS 321 Database Concepts and Design

Year (2025) – Second Semester

Instructor: Fadwa Issa Al-Saleem





Project Group Number (In Blackboard): Group 4

Section Number: 6F03

Project Title: Online Shopping System

Date of Submission: Friday, 28 February

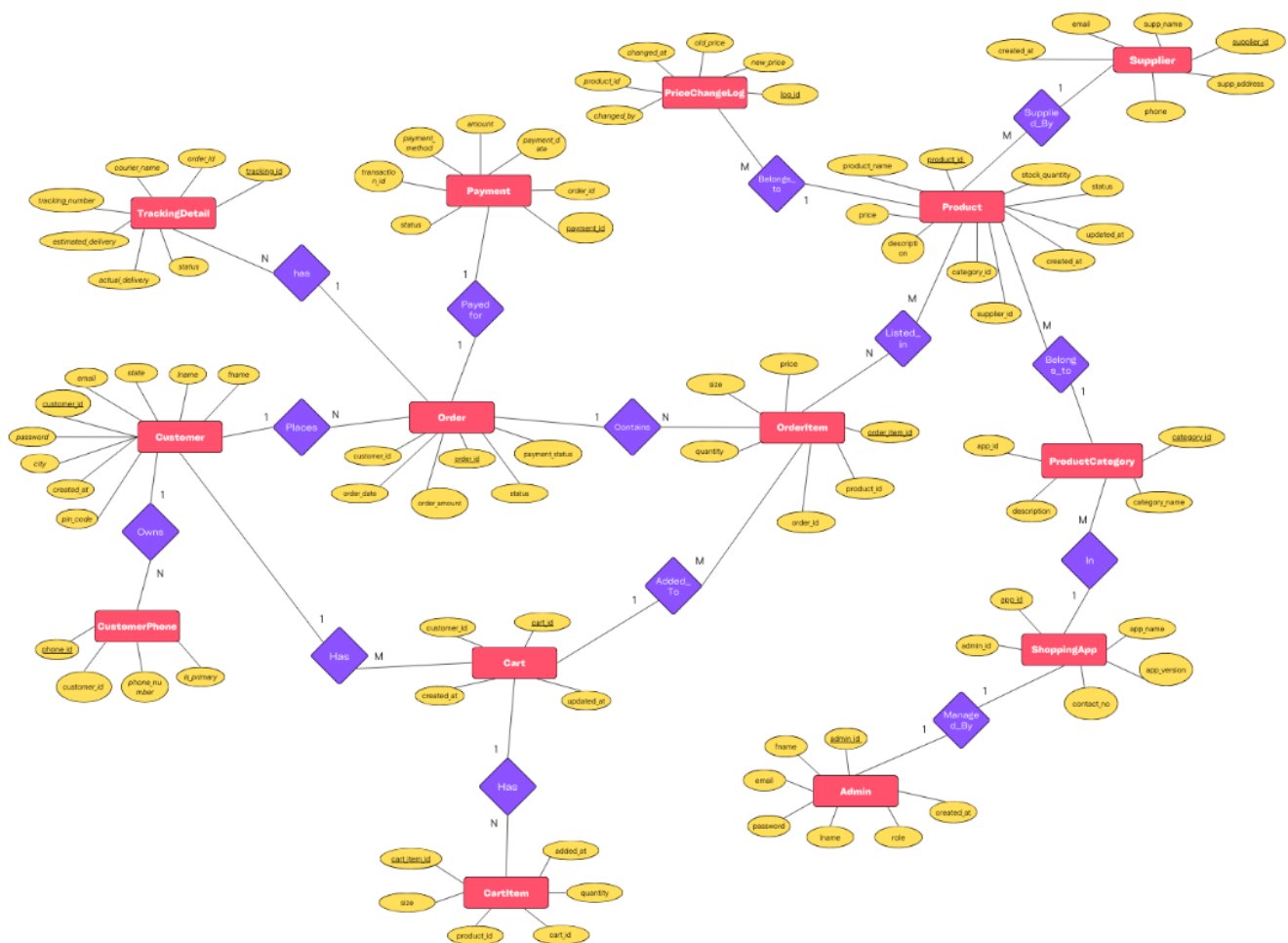
Leader	Student Name	Student ID
✓	Hatoon Alkathiri	2210002905
	Maryam Saad Al-Qahtani	2230005282
	Khawla Meshal Alwhibi	2230005869
	Noura Mahmood Yusuf	2230009070
	Norah Saeed Al Ziyad	2230005461
	Reema Ali Alqarni	2230003817
	Shahad Hamoud Alameer	2230001810

Table of Contents:

ER Diagram.....	3
MAPPING of your ER diagram into Database Schema:.....	4
Tables with full specification of data types for all fields, constraints, and Keys.....	5
Fill Tables with 10 records:.....	9
SQL Query Statements	
Database Diagram From (PhpMyAdmin):.....	16
Database Diagram From (MySQL):.....	17
Write all SQL Queries required in your system to achieve all requirements (screenshot the result for each query).....	18



ER Diagram

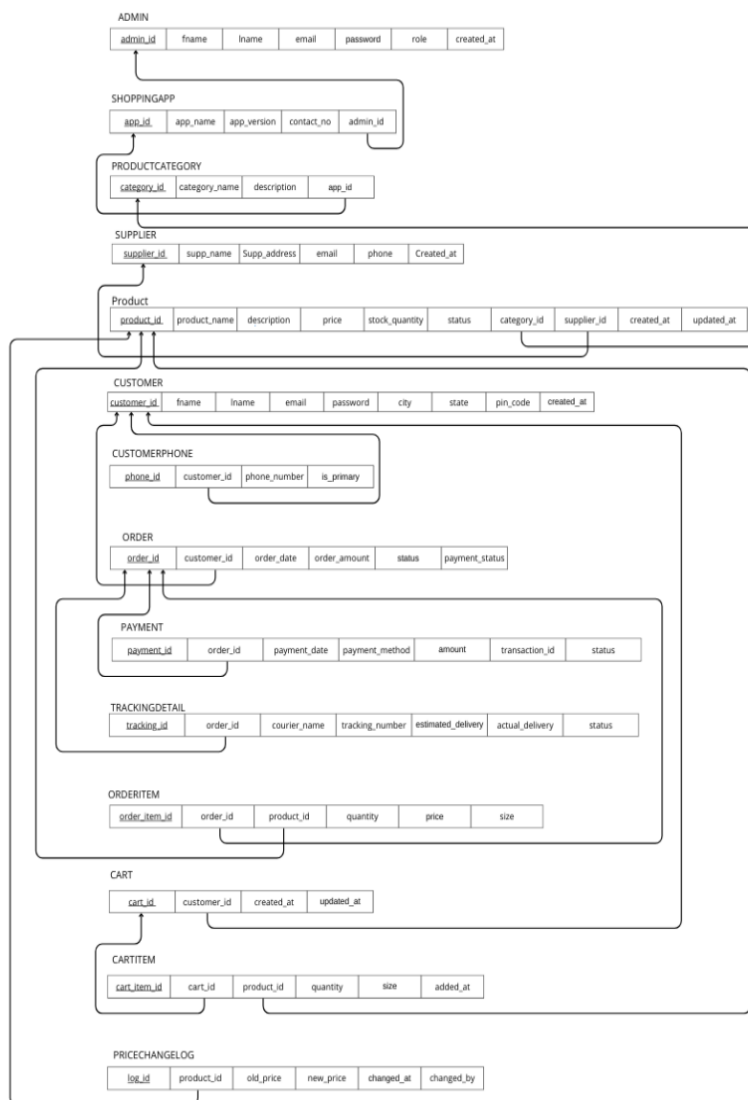


Canva link for ER Diagram

https://www.canva.com/design/DAGm2RaegK4/k7FM8fxDLMwkDDoVluezDQ/edit?utm_content=DAGm2RaegK4&utm_campaign=designshare&utm_medium=link2&utm_source=sharebutton



MAPPING of your ER diagram into Database Schema:



Canva link for map

https://www.canva.com/design/DAGml61tlkY/IHVqkmbTWDOMspCh2L9A9Q/edit?utm_content=DAGml61tlkY&utm_campaign=designshare&utm_medium=link2&utm_source=sharebutton



Tables with full specification of data types for all fields, constraints, and Keys

1. Admin Table

id: INT(11), NOT NULL, AUTO_INCREMENT, PRIMARY KEY

fname: VARCHAR(50), NOT NULL

lname: VARCHAR(50), NOT NULL

email: VARCHAR(100), NOT NULL, UNIQUE KEY

password: VARCHAR(255), NOT NULL

role: VARCHAR(50), NOT NULL

created_at: Timestamp, can be null, Default current_timestamp

2. Customer Table

id: INT(11), NOT NULL, AUTO_INCREMENT, PRIMARY KEY

fname: VARCHAR(50), NOT NULL

lname: VARCHAR(50), NOT NULL

email: VARCHAR(100), NOT NULL, UNIQUE KEY

password: VARCHAR(255), NOT NULL

city: VARCHAR(50), NOT NULL

State: VARCHAR(50), NOT NULL

pin_code: VARCHAR(20), NOT NULL

created_at: timestamp, can be null, default current_timestamp



3. Product category Table

id: INT(11), NOT NULL, AUTO_INCREMENT, PRIMARY KEY

name: VARCHAR(100), NOT NULL

description: text

app_id: int(11), NOT NULL, Foreign key References shoppingapp(id)

4. Shopping app Table

id: INT(11), NOT NULL, AUTO_INCREMENT, PRIMARY KEY

name: VARCHAR(100), NOT NULL

version: VARCHAR(20), NOT NULL

contact_no: VARCHAR(20), NOT NULL

admin_id: int(11), NOT NULL, Foreign key References admin(id)

5. Supplier Table

id: INT(11), NOT NULL, AUTO_INCREMENT, PRIMARY KEY

name: VARCHAR(100), NOT NULL

address: text, NOT NULL

email: VARCHAR(100), NOT NULL, UNIQUE KEY

phone: VARCHAR(20), NOT NULL

created_at: timestamp, can be null, default current_timestamp



6. Cart Table

cart_id: INT(11), NOT NULL, AUTO_INCREMENT, PRIMARY KEY
customer_id: INT(11), NOT NULL
created_at: DATETIME, NOT NULL
updated_at: DATETIME, NOT NULL

7. Cart item Table

id: INT(11), NOT NULL, AUTO_INCREMENT, PRIMARY KEY
cart_id: int(11), NOT NULL, Foreign key References cart(id)
product_id: int(11), NOT NULL, Foreign key References product(id)
quantity: int(11), NOT NULL default 1
size: VARCHAR(20), default null
added_at: timestamp, can be null, default current_timestamp

8. Order item Table

id: INT(11), NOT NULL, AUTO_INCREMENT, PRIMARY KEY
order_id: int(11), NOT NULL, Foreign key References order(id)
product_id: int(11), NOT NULL, Foreign key References product(id)
quantity: int(11), NOT NULL
price: decimal(10,2), NOT NULL
size: VARCHAR(20), default null

9. Payment Table

payment_id: INT(11), NOT NULL, AUTO_INCREMENT, PRIMARY KEY
order_id: INT(11), NOT NULL
payment_date: DATETIME, NOT NULL
payment_method: VARCHAR(50), NOT NULL
amount: DECIMAL(10,2), NOT NULL
transaction_id: VARCHAR(100), NOT NULL
status: VARCHAR(20), NOT NULL



10.Product Table

product_id: INT(11), NOT NULL, AUTO_INCREMENT, PRIMARY KEY
product_name: VARCHAR(255), NOT NULL
description: TEXT, NULL
price: DECIMAL(10,2), NOT NULL
stock_quantity: INT(11), NOT NULL
status: VARCHAR(50), NOT NULL
category_id: INT(11), NOT NULL
supplier_id: INT(11), NOT NULL
created_at: DATETIME, NOT NULL
updated_at: DATETIME, NOT NULL

11.Price Change Log Table

log_id: INT(11), NOT NULL, AUTO_INCREMENT, PRIMARY KEY
product_id: INT(11), NOT NULL
old_price: DECIMAL(10,2), NOT NULL
new_price: DECIMAL(10,2), NOT NULL
changed_at: DATETIME, NOT NULL
changed_by: VARCHAR(50), NOT NULL

12.Customer Phone Table

phone_id: INT(11), NOT NULL, AUTO_INCREMENT, PRIMARY KEY
customer_id: INT(11), NOT NULL
phone_number: VARCHAR(20), NOT NULL
is_primary: TINYINT(1), NOT NULL

13.Tracking Detail Table

tracking_id: INT(11), NOT NULL, AUTO_INCREMENT, PRIMARY KEY
order_id: INT(11), NOT NULL
courier_name: VARCHAR(100), NOT NULL
tracking_number: VARCHAR(100), NOT NULL
estimated_delivery: DATE, NOT NULL
actual_delivery: DATE, NULL
status: VARCHAR(50), NOT NULL

14.Order Table

order_id: INT(11), NOT NULL, AUTO_INCREMENT, PRIMARY KEY
customer_id: INT(11), NOT NULL
order_date: DATETIME, NOT NULL
order_amount: DECIMAL(10,2), NOT NULL
status: VARCHAR(50), NOT NULL
payment_status: VARCHAR(50), NOT NULL



Fill Tables with 10 records:

1. Admin table

```
1 • SELECT * FROM project.admin;
```

admin_id	fname	lname	email	password	role	created_at
1	محمد	السهي	m.alsuhail@example.com	\$2y\$10\$examplehash	super_admin	2025-04-29 20:20:30
2	سارة	العنبي	s.alotaibi@example.com	\$2y\$10\$examplehash	inventory_manager	2025-04-29 20:20:30
3	خالد	القاضي	k.alghamdi@example.com	\$2y\$10\$examplehash	sales_manager	2025-04-29 20:20:30
4	نورة	القرني	n.alqarni@example.com	\$2y\$10\$examplehash	customer_support	2025-04-29 20:20:30
5	عبدالله	الحارثي	a.alharthi@example.com	\$2y\$10\$examplehash	marketing_manager	2025-04-29 20:20:30
6	لمى	الزهراني	l.alzahrani@example.com	\$2y\$10\$examplehash	data_analyst	2025-04-29 20:20:30
7	فيصل	العمري	f.alomari@example.com	\$2y\$10\$examplehash	logistics_manager	2025-04-29 20:20:30
8	هناء	الشهري	h.alshahri@example.com	\$2y\$10\$examplehash	hr_manager	2025-04-29 20:20:30
9	تركي	البلوي	t.albalawi@example.com	\$2y\$10\$examplehash	it_specialist	2025-04-29 20:20:30
10	أمل	الجبرين	a.aljabrin@example.com	\$2y\$10\$examplehash	finance_manager	2025-04-29 20:20:30
NULL	NULL	NULL	NULL	NULL	NULL	NULL

2. Shopping application table

```
1 • SELECT * FROM project.shoppingapp;
```

app_id	app_name	app_version	contact_no	admin_id
1	متجر السعودية	1.0.0	+966500123456	1
2	سوق نجد	1.2.1	+966501234567	2
3	حجاز مارت	2.0.3	+966502345678	3
4	شرفاوي شوب	1.5.0	+966503456789	4
5	جنوبية	1.1.4	+966504567890	5
6	عسير ستور	3.0.1	+966505678901	6
7	قحطان مول	2.2.0	+966506789012	7
8	طبية ماركت	1.0.5	+966507890123	8
9	الرياض ستور	1.3.2	+966508901234	9
10	الدمام شوب	2.1.0	+966509012345	10
NULL	NULL	NULL	NULL	NULL



3. Product category table

1 • `SELECT * FROM project.productcategory;`

category_id	category_name	description	app_id
1	إلكترونيات	أجهزة إلكترونية وجوالات	1
2	ملابس	ملابس رجالية ونسائية	1
3	بقالة	مواد غذائية ومنزلية	1
4	كتب	كتب تعليمية وترفيهية	1
5	أثاث	أثاث منزلي ومكاتب	2
6	عطور	عطور ومستحضرات تجميل	3
7	ألعاب	ألعاب أطفال وإلكترونية	4
8	رياضة	معدات رياضية ولياقة	5
9	ساعات	ساعات رجالية ونسائية	6
10	مجوهرات	ذهب ومجوهرات	7
NULL	NULL	NULL	NULL

4. Supplier table

1 • `SELECT * FROM project.supplier;`

supplier_id	supp_name	supp_address	email	phone	created_at
1	شركة التقنية السعودية	الرياض، المملكة العربية السعودية	info@tech.sa	+966112345678	2025-04-29 20:20:30
2	أبناء الرياض	الرياض، المملكة العربية السعودية	contact@riyadh-fashion.com	+966112345679	2025-04-29 20:20:30
3	التوزيعات الخليجية	الدمام، المملكة العربية السعودية	sales@gulf-groceries.com	+966112345680	2025-04-29 20:20:30
4	دار النشر العربية	جدة، المملكة العربية السعودية	info@arabic-publishing.com	+966112345681	2025-04-29 20:20:30
5	الأثاث الحديث	الخبر، المملكة العربية السعودية	sales@modern-furniture.sa	+966112345682	2025-04-29 20:20:30
6	عطور الشرق	الظهران، المملكة العربية السعودية	info@east-perfumes.com	+966112345683	2025-04-29 20:20:30
7	ألعاب المستقبل	الجبيل، المملكة العربية السعودية	contact@future-toys.sa	+966112345684	2025-04-29 20:20:30
8	المستلزمات الرياضية	بريدة، المملكة العربية السعودية	sales@sports-gear.sa	+966112345685	2025-04-29 20:20:30
9	ساعات الرفاهية	الطائف، المملكة العربية السعودية	info@luxury-watches.sa	+966112345686	2025-04-29 20:20:30
10	مجوهرات الذهب	حائل، المملكة العربية السعودية	contact@gold-jewelry.sa	+966112345687	2025-04-29 20:20:30
NULL	NULL	NULL	NULL	NULL	NULL



5. Product table

1 • `SELECT * FROM project.product;`

product_id	product_name	description	price	stock_quantity	status	category_id	supplier_id	created_at	updated_at
1	أيفون 15 برو	أحدث جوال من آبل بمواصفات عالية	5499.99	50	available	1	1	2025-04-29 20:20:30	2025-05-07 19:13:08
2	S23 سامسونج جالكسي	AMOLED جوال ذكي بشاشة ديناميكية	3999.99	75	available	1	1	2025-04-29 20:20:30	2025-05-07 19:13:08
3	توب رجالي	توب سعودي قطني عالي الجودة	299.99	200	available	2	2	2025-04-29 20:20:30	2025-05-07 19:13:08
4	عباية سوداء	عباية نسائية مطرزة	499.99	150	available	2	2	2025-04-29 20:20:30	2025-05-07 19:13:08
5	أرز بسقمي	أرز هندي عالي الجودة 5 كجم	59.99	300	available	3	3	2025-04-29 20:20:30	2025-05-07 19:13:08
6	تعليم البرمجة بلغة بايثون	كتاب شامل لتعليم لغة بايثون	129.99	80	available	4	4	2025-04-29 20:20:30	2025-05-07 19:13:08
7	كعبة 3 مفاصل	كعبة 3 مفاصل جلد طبيعي	4599.99	20	available	5	5	2025-04-29 20:20:30	2025-05-07 19:13:08
8	عطر أميري	عطر رجالي من إنتاج سعودي	399.99	100	available	6	6	2025-04-29 20:20:30	2025-05-07 19:13:08
9	كرة قدم نايك	كرة قدم رسمية بحجم 5	199.99	120	available	8	8	2025-04-29 20:20:30	2025-05-07 19:13:08
10	ساعة رولكس	ساعة رجالية فاخرة	15999.99	10	available	9	9	2025-04-29 20:20:30	2025-05-07 19:13:08
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

6. Cart table

1 • `SELECT * FROM project.cart;`

cart_id	customer_id	created_at	updated_at
1	1	2025-04-29 20:20:30	2025-05-07 19:13:08
2	2	2025-04-29 20:20:30	2025-05-07 19:13:08
3	3	2025-04-29 20:20:30	2025-05-07 19:13:08
4	4	2025-04-29 20:20:30	2025-05-07 19:13:08
5	5	2025-04-29 20:20:30	2025-05-07 19:13:08
6	6	2025-04-29 20:20:30	2025-05-07 19:13:08
7	7	2025-04-29 20:20:30	2025-05-07 19:13:08
8	8	2025-04-29 20:20:30	2025-05-07 19:13:08
9	9	2025-04-29 20:20:30	2025-05-07 19:13:08
10	10	2025-04-29 20:20:30	2025-05-07 19:13:08
NULL	NULL	NULL	NULL



7. Payment table

```
1 • SELECT * FROM project.payment;
```

payment_id	order_id	payment_date	payment_method	amount	transaction_id	status
1	1	2025-04-29 20:20:30	credit_card	6099.97	TXN123456	success
2	2	2025-04-29 20:20:30	bank_transfer	4139.96	TXN789012	success
3	3	2025-04-29 20:20:30	credit_card	499.99	TXN345678	success
4	4	2025-04-29 20:20:30	credit_card	129.99	TXN901234	success
5	5	2025-04-29 20:20:30	bank_transfer	4599.99	TXN567890	success
6	6	2025-04-29 20:20:30	bank_transfer	799.98	TXN123789	success
7	7	2025-04-29 20:20:30	credit_card	199.99	TXN456123	success
8	8	2025-04-29 20:20:30	credit_card	399.99	TXN789456	success
9	9	2025-04-29 20:20:30	bank_transfer	15999.99	TXN234567	pending
10	10	2025-04-29 20:20:30	bank_transfer	299.99	TXN890123	success
NULL	NULL	NULL	NULL	NULL	NULL	NULL

8. Customer table

```
1 • SELECT * FROM project.customer;
```

customer_id	fname	lname	email	password	city	state	pin_code	created_at
1	أحمد	الغيم	a.alghunaim@example.com	\$2y\$10\$examplehash	الرياض	الرياض	12345	2025-04-29 20:20:30
2	نوف	القحطاني	n.alqahtani@example.com	\$2y\$10\$examplehash	جدة	مكة المكرمة	23456	2025-04-29 20:20:30
3	تركي	الشمراني	t.alshammari@example.com	\$2y\$10\$examplehash	الدمام	الشرقية	34567	2025-04-29 20:20:30
4	لولوه	الحرابي	l.alharbi@example.com	\$2y\$10\$examplehash	البحر	الشرقية	45678	2025-04-29 20:20:30
5	فهد	الزهراني	f.alzahrani@example.com	\$2y\$10\$examplehash	بريدة	القصيم	56789	2025-04-29 20:20:30
6	شند	العنزي	h.alanzi@example.com	\$2y\$10\$examplehash	تبوك	تبوك	67890	2025-04-29 20:20:30
7	بدر	السليم	b.alsulaim@example.com	\$2y\$10\$examplehash	حائل	حائل	78901	2025-04-29 20:20:30
8	شهد	الفاميدي	s.alghamdi@example.com	\$2y\$10\$examplehash	أبها	عسير	89012	2025-04-29 20:20:30
9	عمر	العارثي	o.alharthi@example.com	\$2y\$10\$examplehash	نجران	نجران	90123	2025-04-29 20:20:30
10	لمى	السهيلى	l.alsuhail@example.com	\$2y\$10\$examplehash	الجبوف	الجبوف	01234	2025-04-29 20:20:30
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL



9. Order table

1 • `SELECT * FROM project.orders;`

order_id	customer_id	order_date	order_amount	status	payment_status
1	1	2025-04-29 20:20:30	6099.97	delivered	paid
2	2	2025-04-29 20:20:30	4139.96	processing	paid
3	3	2025-04-29 20:20:30	499.99	shipped	paid
4	4	2025-04-29 20:20:30	129.99	processing	paid
5	5	2025-04-29 20:20:30	4599.99	delivered	paid
6	6	2025-04-29 20:20:30	799.98	shipped	paid
7	7	2025-04-29 20:20:30	199.99	delivered	paid
8	8	2025-04-29 20:20:30	399.99	processing	paid
9	9	2025-04-29 20:20:30	15999.99	pending	
10	10	2025-04-29 20:20:30	299.99	delivered	paid
*	NULL	NULL	NULL	NULL	NULL

10. Order item table

1 • `SELECT * FROM project.orderitem;`

order_item_id	order_id	product_id	quantity	price	size
1	1	1	1	5499.99	NULL
2	1	3	2	299.99	XL
3	2	2	1	3999.99	NULL
4	2	5	3	59.99	NULL
5	3	4	1	499.99	L
6	4	6	1	129.99	NULL
7	5	7	1	4599.99	NULL
8	6	8	2	399.99	NULL
9	7	9	1	199.99	NULL
10	8	10	1	15999.99	NULL
*	NULL	NULL	NULL	NULL	NULL



11. Tracking detail table

1 • `SELECT * FROM project.trackingdetail;`

Result Grid Filter Rows: Edit: Export/Import: Wrap Cell Content							
	tracking_id	order_id	courier_name	tracking_number	estimated_delivery	actual_delivery	status
▶	1	1	ساعي	SA123456789	2023-06-15	NULL	delivered
	2	2	أرامكس	SA987654321	2023-06-20	NULL	processing
	3	3	دي إتش إل	SA456123789	2023-06-18	NULL	shipped
	4	4	سابل	SA789456123	2023-06-22	NULL	processing
	5	5	ساعي	SA321654987	2023-06-16	NULL	delivered
	6	6	أرامكس	SA654987321	2023-06-19	NULL	shipped
	7	7	دي إتش إل	SA987321654	2023-06-17	NULL	delivered
	8	8	سابل	SA147258369	2023-06-21	NULL	processing
	9	9	فيديكس	SA369258147	2023-06-25	NULL	
	10	10	ساعي	SA258147369	2023-06-15	NULL	delivered
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL

12. Customer phone table

1 • `SELECT * FROM project.customerphone;`

Result Grid Filter Rows: Edit:				
	phone_id	customer_id	phone_number	is_primary
▶	1	1	+966501234567	1
	2	1	+966502345678	0
	3	2	+966503456789	1
	4	3	+966504567890	1
	5	4	+966505678901	1
	6	5	+966506789012	1
	7	6	+966507890123	1
	8	7	+966508901234	1
	9	8	+966509012345	1
	10	9	+966500123456	1
*	NULL	NULL	NULL	NULL



13. Cart item table

1 • `SELECT * FROM project.cartitem;`

	cart_item_id	cart_id	product_id	quantity	size	added_at
▶	1	1	1	1	NULL	2025-04-29 20:20:30
	2	1	3	2	XL	2025-04-29 20:20:30
	3	2	2	1	NULL	2025-04-29 20:20:30
	4	2	5	3	NULL	2025-04-29 20:20:30
	5	3	4	1	L	2025-04-29 20:20:30
	6	4	6	1	NULL	2025-04-29 20:20:30
	7	5	7	1	NULL	2025-04-29 20:20:30
	8	6	8	2	NULL	2025-04-29 20:20:30
	9	7	9	1	NULL	2025-04-29 20:20:30
	10	8	10	1	NULL	2025-04-29 20:20:30
*	NULL	NULL	NULL	NULL	NULL	NULL

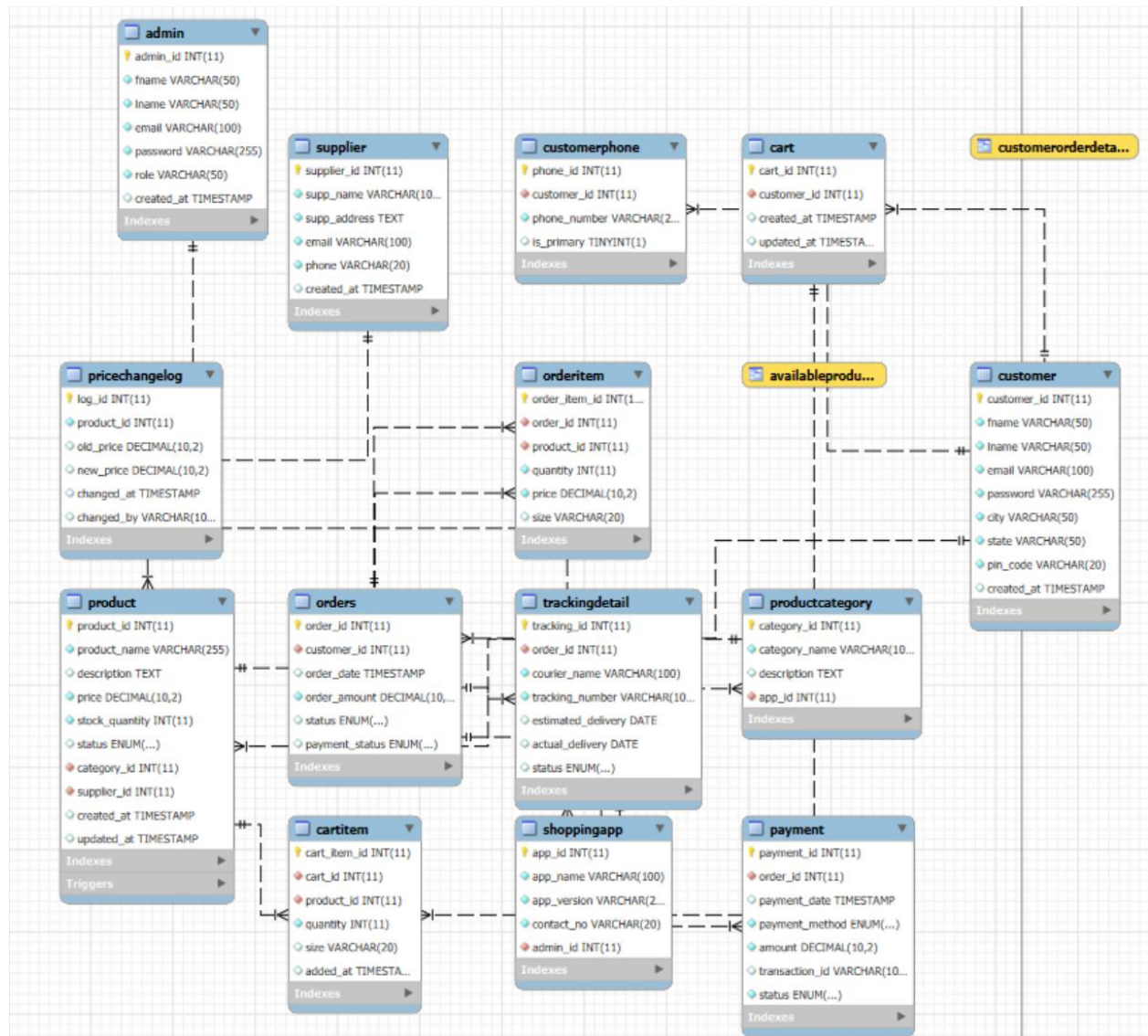
14. Price change log table

1 • `SELECT * FROM project.pricechangelog;`

	log_id	product_id	old_price	new_price	changed_at	changed_by
▶	1	1	4999.99	5499.99	2025-05-01 12:00:00	System
	2	2	658.97	399.99	2025-05-02 09:30:00	s.alotaibi
	3	3	994.99	299.99	2025-05-03 14:45:00	System
	4	4	648.86	499.99	2025-05-04 11:10:00	s.alotaibi
	5	10	738.89	637.76	2025-05-05 16:00:00	System
*	NULL	NULL	NULL	NULL	NULL	NULL



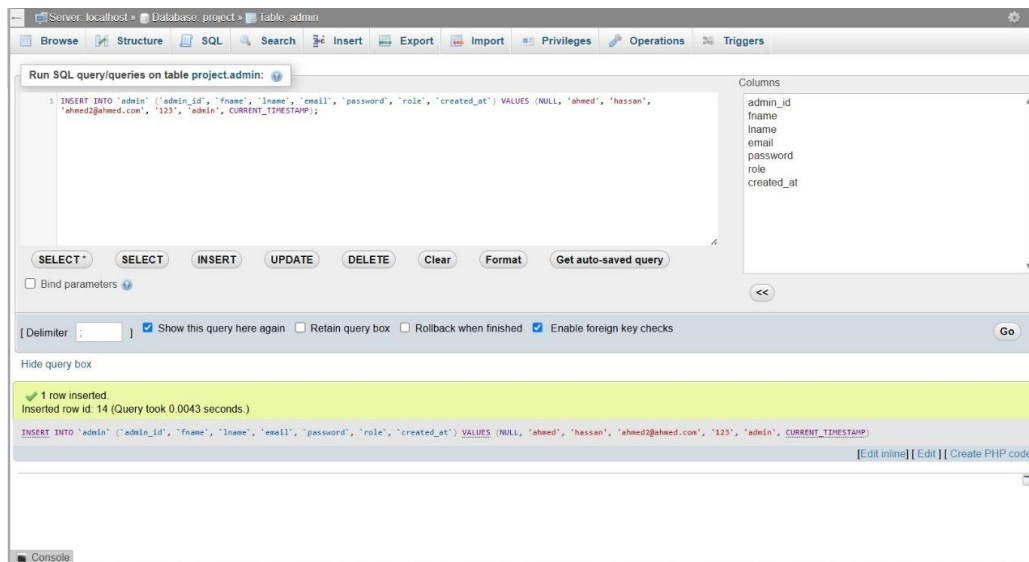
Database Diagram From (MySQL):



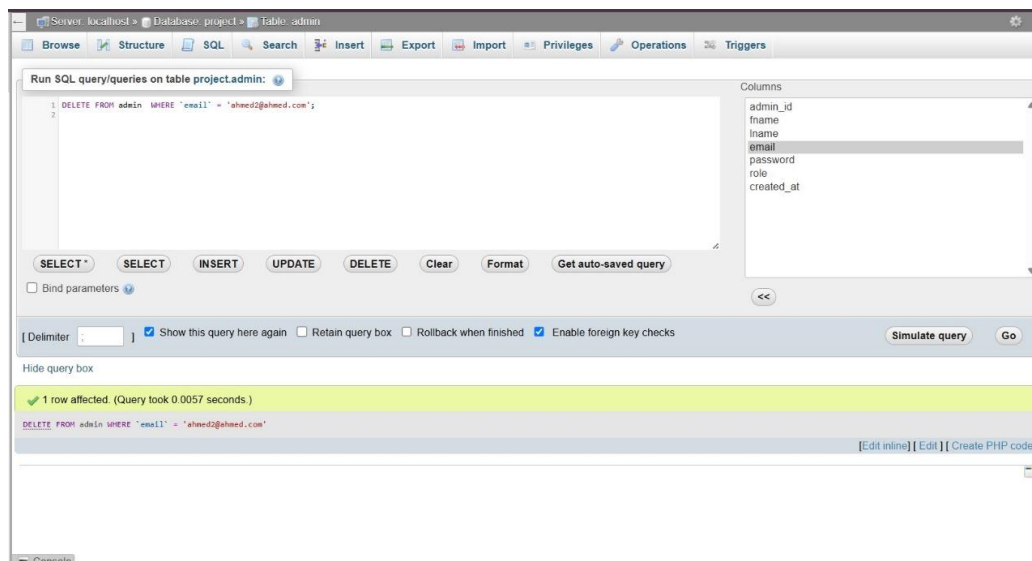


Write all SQL Queries required in your system to achieve all requirements
(screenshot the result for each query).

1. Insert:



2. Delete:





3. Update:

Run SQL query/queries on table project.admin:

```
1 UPDATE admin SET 'fname' = 'mohammed' and 'lname' = 'mahmoud' WHERE 'email' = 'ahmed2@ahmed.com';
```

Columns:

- admin_id
- fname
- lname
- email
- password
- role
- created_at

Buttons: SELECT*, SELECT, INSERT, UPDATE, DELETE, Clear, Format, Get auto-saved query

☐ Bind parameters

[Delimiter:] ☒ Show this query here again ☐ Retain query box ☐ Rollback when finished ☒ Enable foreign key checks [Simulate query] [Go]

Hide query box

1 row affected. (Query took 0.0041 seconds.)

```
UPDATE admin SET 'fname' = 'mohammed' and 'lname' = 'mahmoud' WHERE 'email' = 'ahmed2@ahmed.com'
```

[Edit inline] [Edit] [Create PHP code]

Warning #1292 Truncated incorrect DOUBLE value: 'mohammed'

Console

4. Like:

Run SQL query/queries on database project:

```
1 SELECT * FROM Product
2 WHERE product_name LIKE 'S&S';
```

Buttons: Clear, Format, Get auto-saved query

☐ Bind parameters

[Delimiter:] ☒ Show this query here again ☒ Retain query box ☐ Rollback when finished ☒ Enable foreign key checks [Go]

Hide query box

Showing rows 0 - 0 (1 total, Query took 0.0002 seconds.)

```
SELECT * FROM Product WHERE product_name LIKE 'S&S'
```

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

☐ Show all | Number of rows: 25 | Filter rows: Search this table

product_id	product_name	description	price	stock_quantity	status	category_id	supplier_id	created_at	updated_at
2	سامسجج جالسي	جوال نكي بشاشة بيزالسيكية AMOLED	3999.99	75	available	1	1	2025-04-29 23:20:30	2025-05-08 17:44:58

Query results operations: Copy to clipboard, Export, Display chart, Create view

Console



5. Between:

Run SQL query/queries on database project:

```
1 SELECT * FROM Orders
2 WHERE order_amount BETWEEN 1000 AND 5000;
```

Clear Format Get auto-saved query

☐ Bind parameters

[Delimiter: ;] ☒ Show this query here again ☒ Retain query box ☐ Rollback when finished ☒ Enable foreign key checks Go

Hide query box

Showing rows 0 - 1 (2 total, Query took 0.0002 seconds.)

```
SELECT * FROM Orders WHERE order_amount BETWEEN 1000 AND 5000
```

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

☐ Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

Options

	order_id	customer_id	order_date	order_amount	status	payment_status
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	2	2	2025-04-29 23:20:30	4139.96	processing	paid
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	5	5	2025-04-29 23:20:30	4599.99	delivered	paid

☐ Check all | With selected: ☐ Edit ☐ Copy ☐ Delete ☐ Export

☐ Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

Console: suits operations

6. IN:

Run SQL query/queries on database project:

```
1 SELECT * FROM Product WHERE category_id = 1;
```

Clear Format Get auto-saved query

☐ Bind parameters

[Delimiter: ;] ☒ Show this query here again ☐ Retain query box ☐ Rollback when finished ☒ Enable foreign key checks Go

Hide query box

Showing rows 0 - 1 (2 total, Query took 0.0010 seconds.)

```
SELECT * FROM Product WHERE category_id = 1
```

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

☐ Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

Options

	product_id	product_name	description	price	stock_quantity	status	category_id	supplier_id	created_at	updated_at
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	1	أفون 15 برو	أحدث جوال من آل بيكسبيك عالية	5499.99	50	available	1	1	2025-04-29 23:20:30	2025-05-08 17:44:58
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	2	سامسونج جالكسي S23	جوال نكي بشاشة بيكسبيك AMOLED	3999.99	75	available	1	1	2025-04-29 23:20:30	2025-05-08 17:44:58

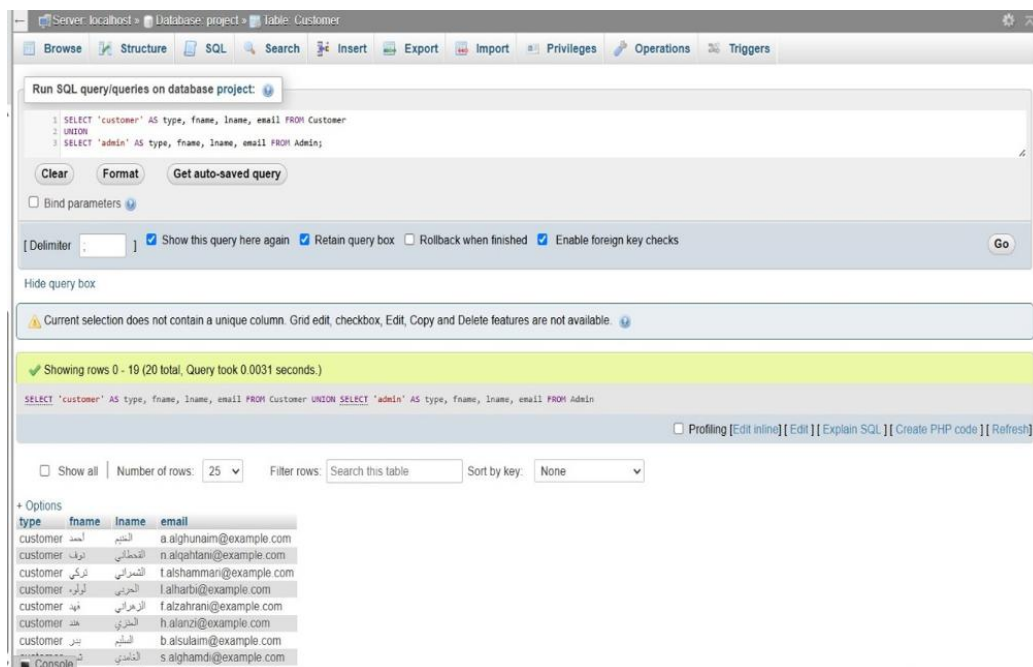
☐ Check all | With selected: ☐ Edit ☐ Copy ☐ Delete ☐ Export

☐ Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

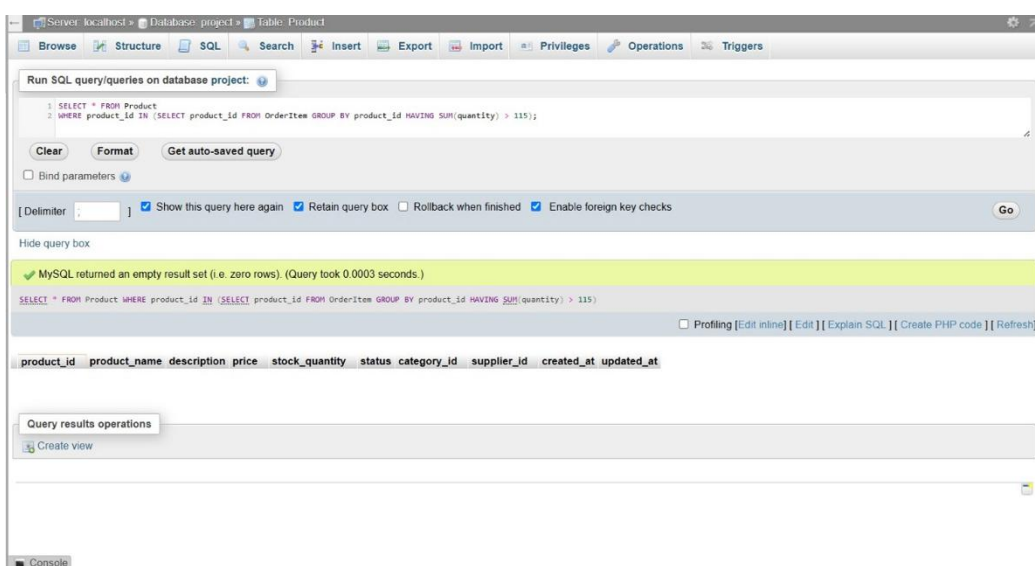
Console:



7. Union:



8. Group by:





9. Having:

Run SQL query/queries on database project:

```

1 FROM Customer c
2 JOIN Orders o ON c.customer_id = o.customer_id
3 GROUP BY c.city
4 HAVING order_count > 8;

```

Showing rows 0 - 9 (10 total, Query took 0.0005 seconds)

SELECT c.city, COUNT(o.order_id) AS order_count FROM Customer c JOIN Orders o ON c.customer_id = o.customer_id GROUP BY c.city HAVING order_count > 8

city	order_count
الرياض	1
جدة	1
الدمام	1
الخرج	1
البريدة	1
توبخا	1
حائل	1
بغداد	1

10.Exists:

Run SQL query/queries on database project:

```

1 SELECT * FROM Product p
2 WHERE EXISTS (SELECT 1 FROM OrderItem oi WHERE p.product_id = oi.product_id);

```

Showing rows 0 - 9 (10 total, Query took 0.0004 seconds)

SELECT * FROM Product p WHERE EXISTS (SELECT 1 FROM OrderItem oi WHERE p.product_id = oi.product_id)

product_id	product_name	description	price	stock_quantity	status	category_id	supplier_id	created_at	updated_at
1	أحدث جوال من أبل	أحدث جوال من أبل بـ 15 بيز	5499.99	50	available	1	1	2025-04-29 23:20:30	2025-05-08 17:44:58
2	AMOLED جوال نكي شاشة	AMOLED جوال نكي شاشة بـ 23 سمارتفون جالكسي S23	3999.99	75	available	1	1	2025-04-29 23:20:30	2025-05-08 17:44:58
3	أوبس سموي	أوبس سموي كاشي عالي الجودة	299.99	200	available	2	2	2025-04-29 23:20:30	2025-05-08 17:44:58
4	عذابة صابون	عذابة صابون مطبوخة	499.99	150	available	2	2	2025-04-29 23:20:30	2025-05-08 17:44:58
5	أرز حادي	أرز حادي عالي الجودة 5 كجم	59.99	300	available	3	3	2025-04-29 23:20:30	2025-05-08 17:44:58
6	كتاب شامل	كتاب شامل لتعليم لغة بايثون	129.99	80	available	4	4	2025-04-29 23:20:30	2025-05-08 17:44:58
7	كمية 3 معاد	كمية 3 معاد جلد مطبوع	4599.99	20	available	5	5	2025-04-29 23:20:30	2025-05-08 17:44:58
8	جوال نكي	جوال نكي شاشة بـ 23 سمارتفون جالكسي S23	3999.99	75	available	1	1	2025-04-29 23:20:30	2025-05-08 17:44:58



11. Aggregation:

Run SQL query/queries on database project:

```
1 SELECT s.supplier_id, s.supp_name, COUNT(p.product_id) AS products_supplied
2 FROM Supplier s
3 JOIN Product p ON s.supplier_id = p.supplier_id
4 GROUP BY s.supplier_id, s.supp_name
5 ORDER BY products_supplied DESC;
```

Showing rows 0 - 7 (8 total, Query took 0.0003 seconds)

```
SELECT s.supplier_id, s.supp_name, COUNT(p.product_id) AS products_supplied FROM Supplier s JOIN Product p ON s.supplier_id = p.supplier_id GROUP BY s.supplier_id, s.supp_name ORDER BY products_supplied DESC
```

supplier_id	supp_name	products_supplied
2	أرياء الرياض	2
1	شركة التقنية المتقدمة	2
3	المعدات الحاسوبية	1
4	دار النشر العربية	1
5	الإتصالات الحديثة	1
6	مطور الشرق	1
المستلزمات الأساسية		1

12. Natural Join:

Run SQL query/queries on database project:

```
1 SELECT c.category_name, SUM(o.quantity * oi.price) AS total_sales
2 FROM OrderItem oi
3 JOIN Product p ON oi.product_id = p.product_id
4 JOIN ProductCategory c ON p.category_id = c.category_id
5 GROUP BY c.category_name
6 ORDER BY total_sales DESC;
```

Showing rows 0 - 7 (8 total, Query took 0.0034 seconds)

```
SELECT c.category_name, SUM(oi.quantity * oi.price) AS total_sales FROM OrderItem oi JOIN Product p ON oi.product_id = p.product_id JOIN ProductCategory c ON p.category_id = c.category_id GROUP BY c.category_name ORDER BY total_sales DESC
```

category_name	total_sales
ساعات	15999.99
أجهزة حاسوب	9499.98
أثاث	4599.99
مكتبات	1099.97
	799.98



13. Outer Join:

Run SQL query/queries on database project:

```

1 SELECT o.order_id, o.order_date, c.fname, c.lname,
2       p.product_name, oi.quantity, oi.price,
3       td.tracking_number, td.status AS delivery_status
4 FROM Orders o
5 JOIN Customer c ON o.customer_id = c.customer_id
6 JOIN OrderItem oi ON o.order_id = oi.order_id
7 JOIN Product p ON oi.product_id = p.product_id
8 LEFT JOIN TrackingDetail td ON o.order_id = td.order_id
9 WHERE o.status = 'processing';

```

Showing rows 0 - 3 (4 total, Query took 0.0027 seconds.)

```

SELECT o.order_id, o.order_date, c.fname, c.lname, p.product_name, oi.quantity, oi.price, td.tracking_number, td.status AS delivery_status FROM Orders o JOIN Customer c ON o.customer_id = c.customer_id JOIN OrderItem oi ON o.order_id = oi.order_id JOIN Product p ON oi.product_id = p.product_id LEFT JOIN TrackingDetail td ON o.order_id = td.order_id WHERE o.status = 'processing'

```

order_id	order_date	fname	lname	product_name	quantity	price	tracking_number	delivery_status
2	2025-04-29 23:20:30	أحمد	الحمادي	سامساج واثقسي S23	1	3999.99	SA987654321	processing
2	2025-04-29 23:20:30	أحمد	الحمادي	أريستو	3	59.99	SA987654321	processing
4	2025-04-29 23:20:30	أحمد	الحمادي	تلم الفرمجة بلنة باليون	1	129.99	SA789456123	processing
8	2025-04-29 23:20:30	شيد	الحمادي	ساعة رولكس	1	15999.99	SA147258369	processing

14. Nested Query:

Run SQL query/queries on database project:

```

1 SELECT * FROM Customer
2 WHERE customer_id IN (
3   SELECT customer_id FROM Orders
4   WHERE YEAR(order_date) = YEAR(CURRENT_DATE)
5 );

```

Showing rows 0 - 9 (10 total, Query took 0.0032 seconds.)

```

SELECT * FROM Customer WHERE customer_id IN ( SELECT customer_id FROM Orders WHERE YEAR(order_date) = YEAR(CURRENT_DATE) )

```

customer_id	fname	lname	email	password	city	state	pin_code	created_at
1	أحمد	الحمادي	a.alghunam@example.com	\$2y\$10\$examplehash	الرياض	الرياض	12345	2025-04-29 23:20:30
2	أحمد	الحمادي	n.alqahtani@example.com	\$2y\$10\$examplehash	جدة	مكة المكرمة	23456	2025-04-29 23:20:30
3	أحمد	الحمادي	t.alshammari@example.com	\$2y\$10\$examplehash	الدمام	الشرقية	34567	2025-04-29 23:20:30
4	أحمد	الحمادي	l.alharbi@example.com	\$2y\$10\$examplehash	الخرج	الشرقية	45678	2025-04-29 23:20:30
5	أحمد	الحمادي	f.alzahran@example.com	\$2y\$10\$examplehash	بريدة	القصيم	56789	2025-04-29 23:20:30
6	أحمد	الحمادي	h.alazni@example.com	\$2y\$10\$examplehash	أبها	أبها	67890	2025-04-29 23:20:30



15. Function:

Run SQL query/queries on database project:

```
1 SELECT c.customer_id, c.fname, c.lname, SUM(o.order_amount) AS total_spent
2 FROM customer c
3 JOIN Orders o ON c.customer_id = o.customer_id
4 GROUP BY c.customer_id, c.fname, c.lname
5 HAVING total_spent > (SELECT AVG(order_amount) FROM Orders);
```

Clear Format Get auto-saved query

☐ Bind parameters

[Delimiter:] ☒ Show this query here again ☒ Retain query box ☐ Rollback when finished ☒ Enable foreign key checks Go

Hide query box

Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.

Showing rows 0 - 3 (4 total, Query took 0.0006 seconds)

```
SELECT c.customer_id, c.fname, c.lname, SUM(o.order_amount) AS total_spent FROM Customer c JOIN Orders o ON c.customer_id = o.customer_id GROUP BY c.customer_id, c.fname, c.lname HAVING total_spent > (SELECT AVG(order_amount) FROM Orders);
```

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

☐ Show all Number of rows: 25 Filter rows: Search this table

+ Options

customer_id	fname	lname	total_spent
1	أحمد	الخير	6099.97
2	نور	المنجاني	4139.96
5	هبة	الرحاوي	4599.99
9	عمر	الداري	15999.99

Console

16. Stored Procedure

Run SQL query/queries on database project:

```
1 DELIMITER $$
2 CREATE PROCEDURE CreateOrder(
3   IN p_customer_id INT,
4   IN p_payment_method VARCHAR(50),
5   OUT p_order_id INT
6 )
7 BEGIN
8   DECLARE v_total DECIMAL(10,2);
9   DECLARE v_cart_id INT;
10
11   -- الحصول على القائمة المطلوبة
12   SELECT cart_id INTO v_cart_id FROM Cart
13   WHERE customer_id = p_customer_id
14   ORDER BY created_at DESC LIMIT 1;
15
16   -- الحصول على السعر من القائمة المطلوبة
17   SELECT SUM(p.price * ci.quantity) INTO v_total FROM Cartitem ci JOIN Product p ON ci.product_id = p.product_id WHERE ci.cart_id = v_cart_id;
18   INSERT INTO Orders (customer_id, order_amount, payment_status) VALUES (p_customer_id, v_total, 'unpaid');
19   SET p_order_id = LAST_INSERT_ID();
20   INSERT INTO Orderitem (order_id, product_id, quantity, price, size) SELECT p_order_id, ci.product_id, ci.quantity, p.price, ci.size FROM Cartitem ci JOIN Product p ON ci.product_id = p.product_id WHERE ci.cart_id = v_cart_id;
21 END;
```

Clear Format Get auto-saved query

☐ Bind parameters

[Delimiter:] ☒ Show this query here again ☒ Retain query box ☐ Rollback when finished ☒ Enable foreign key checks Go

Hide query box

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0043 seconds)

CREATE PROCEDURE CreateOrder(IN p_customer_id INT, IN p_payment_method VARCHAR(50), OUT p_order_id INT) BEGIN DECLARE v_total DECIMAL(10,2); DECLARE v_cart_id INT; -- الحصول على القائمة المطلوبة SELECT cart_id INTO v_cart_id FROM Cart WHERE customer_id = p_customer_id ORDER BY created_at DESC LIMIT 1; -- الحصول على السعر من القائمة المطلوبة SELECT SUM(p.price * ci.quantity) INTO v_total FROM Cartitem ci JOIN Product p ON ci.product_id = p.product_id WHERE ci.cart_id = v_cart_id; INSERT INTO Orders (customer_id, order_amount, payment_status) VALUES (p_customer_id, v_total, 'unpaid'); SET p_order_id = LAST_INSERT_ID(); INSERT INTO Orderitem (order_id, product_id, quantity, price, size) SELECT p_order_id, ci.product_id, ci.quantity, p.price, ci.size FROM Cartitem ci JOIN Product p ON ci.product_id = p.product_id WHERE ci.cart_id = v_cart_id; END;

Console



17. Trigger:

The screenshot shows the MySQL Workbench interface with the 'Run SQL query/queries on database project' window. The query is as follows:

```
1 DELIMITER $$
2 CREATE TRIGGER UpdateProductStatus
3 AFTER UPDATE ON Product
4 FOR EACH ROW
5 BEGIN
6     IF NEW.stock_quantity <= 0 AND NEW.status != 'out_of_stock' THEN
7         UPDATE Product SET status = 'out_of_stock' WHERE product_id = NEW.product_id;
8     END IF;
9 END$$
10 DELIMITER ;
```

Below the query, there are buttons for 'Clear', 'Format', and 'Get auto-saved query'. There is also a checkbox for 'Bind parameters'. The 'Go' button is visible on the right. The status bar at the bottom indicates 'MySQL returned an empty result set (i.e. zero rows) (Query took 0.0103 seconds)'.

18. View:

The screenshot shows the MySQL Workbench interface with the 'Run SQL query/queries on database project' window. The query is as follows:

```
1 CREATE VIEW AvailableProducts AS
2 SELECT p.product_id, p.product_name, p.price, p.stock_quantity,
3        c.category_name, s.supplier_name
4 FROM Product p
5 JOIN ProductCategory c ON p.category_id = c.category_id
6 JOIN Supplier s ON p.supplier_id = s.supplier_id
7 WHERE p.status = 'available' AND p.stock_quantity > 0;
```

Below the query, there are buttons for 'Clear', 'Format', and 'Get auto-saved query'. There is also a checkbox for 'Bind parameters'. The 'Go' button is visible on the right. The status bar at the bottom indicates 'MySQL returned an empty result set (i.e. zero rows) (Query took 0.0188 seconds)'.



19.View 2:

```

1  CREATE VIEW CustomerOrderDetails AS
2  SELECT o.order_id, o.order_date, o.order_amount, o.status,
3         c.fname, c.lname, c.email,
4         GROUP_CONCAT(oi.quantity, ' x ', p.product_name SEPARATOR ', ') AS items,
5         pynt.payment_method, pynt.amount AS paid_amount,
6         td.courier_name, td.tracking_number, td.status AS shipping_status
7  FROM Orders o
8  JOIN Customer c ON o.customer_id = c.customer_id
9  JOIN OrderItem oi ON o.order_id = oi.order_id
10 JOIN Product p ON oi.product_id = p.product_id
11 LEFT JOIN Payment pynt ON o.order_id = pynt.order_id
12 LEFT JOIN TrackingDetail td ON o.order_id = td.order_id
13 GROUP BY o.order_id, o.order_date, o.order_amount, o.status,
14          c.fname, c.lname, c.email,
15          pynt.payment_method, pynt.amount,
16          td.courier_name, td.tracking_number, td.status;

```

MySQL returned an empty result set (i.e. zero rows) (Query took 0.0217 seconds)

20.TABLE

```

130  CREATE TABLE TrackingDetail (
131    tracking_id INT PRIMARY KEY AUTO_INCREMENT,
132    order_id INT NOT NULL,
133    courier_name VARCHAR(100) NOT NULL,
134    tracking_number VARCHAR(100) NOT NULL,
135    estimated_delivery DATE,
136    actual_delivery DATE,
137    status ENUM('processing', 'shipped', 'in_transit', 'out_for_delivery', 'delivered') DEFAULT 'processing',
138    FOREIGN KEY (order_id) REFERENCES Orders(order_id)
139  );

```

```

140  -- جدول المستخدمين
141  CREATE TABLE Admin (
142    admin_id INT PRIMARY KEY AUTO_INCREMENT,
143    fname VARCHAR(50) NOT NULL,
144    lname VARCHAR(50) NOT NULL,
145    email VARCHAR(100) UNIQUE NOT NULL,
146    password VARCHAR(255) NOT NULL,
147    role VARCHAR(50) NOT NULL,
148    created_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP
149  );

```

```

150  -- جدول التطبيق
151  CREATE TABLE ShoppingApp (
152    app_id INT PRIMARY KEY AUTO_INCREMENT,
153    app_name VARCHAR(100) NOT NULL,
154    app_version VARCHAR(20) NOT NULL,
155    contact_no VARCHAR(20) NOT NULL,
156    admin_id INT NOT NULL,
157    FOREIGN KEY (admin_id) REFERENCES Admin(admin_id)
158  );

```

MySQL returned an empty result set (i.e. zero rows) (Query took 0.0387 seconds)

MySQL returned an empty result set (i.e. zero rows) (Query took 0.0307 seconds)

MySQL returned an empty result set (i.e. zero rows) (Query took 0.0229 seconds)



21: Function, Order by, Having, Nested query:

Run SQL query/queries on database project:

```

1 SELECT c.customer_id, c.fname, c.lname, SUM(o.order_amount) AS total_spent
2 FROM Customer c
3 JOIN Orders o ON c.customer_id = o.customer_id
4 GROUP BY c.customer_id, c.fname, c.lname
5 HAVING total_spent > (SELECT AVG(order_amount) FROM Orders);

```

Showing rows 0 - 3 (4 total, Query took 0.0006 seconds)

customer_id	fname	lname	total_spent
1	أحمد	العزيز	6099.97
2	خالد	الحياتي	4139.96
5	محمد	البركاتي	4599.99
9	عمر	الحارثي	15999.99

22: Function, Order by, Group by, Aggregation:

Run SQL query/queries on database project:

```

1 SELECT p.product_id, p.product_name, SUM(oi.quantity) AS total_sold
2 FROM Product p
3 JOIN OrderItem oi ON p.product_id = oi.product_id
4 GROUP BY p.product_id, p.product_name
5 ORDER BY total_sold DESC
6 LIMIT 5;

```

Showing rows 0 - 4 (5 total, Query took 0.0026 seconds)

product_id	product_name	total_sold
5	لوز بنسبي	3
3	توتة بنسبالي	2
8	عسل لبروي	2
2	ساندوتج جالكي S23	1
10	ساندوتج دوكلي	1



23. Nested query, IN, Group by, Aggregation, Having:

Run SQL query/queries on database project:

```
1 SELECT * FROM Product
2 WHERE product_name LIKE '%s%';
```

Clear Format Get auto-saved query

☐ Bind parameters

[Delimiter:] ☒ Show this query here again ☒ Retain query box ☐ Rollback when finished ☒ Enable foreign key checks Go

Hide query box

Showing rows 0 - 0 (1 total, Query took 0.0002 seconds.)

```
SELECT * FROM Product WHERE product_name LIKE '%s%';
```

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

☐ Show all Number of rows: 25 Filter rows: Search this table

Options

product_id	product_name	description	price	stock_quantity	status	category_id	supplier_id	created_at	updated_at
2	سامسونج جالكسي S23	جوال نكي بشاشة AMOLED	3999.99	75	available	1	1	2025-04-29 23:20:30	2025-05-08 17:44:58

☐ Check all With selected: Edit Copy Delete Export

☐ Show all Number of rows: 25 Filter rows: Search this table

Query results operations

Copy to clipboard Export Display chart Create view

24. Is Null:

Run SQL query/queries on table project.cart:

```
1 SELECT * FROM cart WHERE updated_at IS NULL;
```

SELECT * SELECT INSERT UPDATE DELETE Clear Format Get auto-saved query

☐ Bind parameters

Delimiter: ☐ Show this query here again ☐ Retain query box ☐ Rollback when finished ☒ Enable foreign key checks Go

Hide query box

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0002 seconds.)

```
SELECT * FROM cart WHERE updated_at IS NULL;
```

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

cart_id customer_id created_at updated_at

Query results operations

Create view



25. Not:

Run SQL query/queries on table project.pricechangelog:

```
1 SELECT * FROM pricechangelog WHERE NOT new_price > 100;
```

SELECT * SELECT INSERT UPDATE DELETE Clear Format Get auto-saved query

☐ Bind parameters

Delimiter : ☐ Show this query here again ☐ Retain query box ☐ Rollback when finished ☒ Enable foreign key checks Go

Hide query box

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0002 seconds.)

```
SELECT * FROM pricechangelog WHERE NOT new_price > 100;
```

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

log_id product_id old_price new_price changed_at changed_by

Query results operations

Create view

26. Distinct

Run SQL query/queries on table project.customer:

```
1 SELECT DISTINCT state FROM customer;
```

SELECT * SELECT INSERT UPDATE DELETE Clear Format Get auto-saved query

☐ Bind parameters

Delimiter : ☐ Show this query here again ☐ Retain query box ☐ Rollback when finished ☒ Enable foreign key checks Go

Hide query box

Showing rows 0 - 8 (9 total, Query took 0.0003 seconds.)

```
SELECT DISTINCT state FROM customer;
```

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

☐ Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

Extra options

state

☐ Edit ☐ Copy ☐ Delete ☐ Edit ☐ Copy ☐ Delete ☐ Edit ☐ Copy ☐ Delete ☐ Edit ☐ Copy ☐ Delete