

BÀI TẬP THỰC HÀNH 4

Câu 1:

- **Truy vấn:**

```
SELECT
    c.customerNumber,
    c.salesRepEmployeeNumber,
    e.officeCode
FROM
    customers c
JOIN
    employees e ON c.salesRepEmployeeNumber = e.employeeNumber
ORDER BY
    c.customerNumber;
```

- **Kết quả:**

Result Grid	Filter Rows:	Export:	Wrap Cell Content:
customerNumber	salesRepEmployeeNumber	officeCode	
103	1370	4	
112	1166	1	
114	1611	6	
119	1370	4	
121	1504	7	
124	1165	1	
128	1504	7	
129	1165	1	
131	1232	2	

Câu 2:

- **Truy vấn:**

```
SELECT
    c.customerNumber,
    c.creditLimit,
    p.checkNumber,
    p.paymentDate,
    p.amount
FROM
    customers c
LEFT JOIN
    payments p ON c.customerNumber = p.customerNumber
ORDER BY
    c.customerNumber, p.paymentDate;
```

- **Kết quả:**

Result Grid

Filter Rows:

Export:

Wrap Cell Content:

	customerNumber	creditLimit	checkNumber	paymentDate	amount
▶	103	21000.00	JM555205	2003-06-05	14571.44
	103	21000.00	HQ336336	2004-10-19	6066.78
	103	21000.00	OM314933	2004-12-18	1676.14
	112	71800.00	HQ55022	2003-06-06	32641.98
	112	71800.00	ND748579	2004-08-20	33347.88
	112	71800.00	BO864823	2004-12-17	14191.12

Câu 3:

- Truy vấn:

```
SELECT DISTINCT
  o.orderNumber
FROM
  orders o
JOIN
  orderdetails od ON o.orderNumber = od.orderNumber
WHERE
  o.status = 'In Process'
  OR od.quantityOrdered >= 45
ORDER BY
  o.orderNumber;
```

- Kết quả:

Result Grid	Filter Rows:	Export:	Wrap Cell Contents:
orderNumber			
10100			
10101			
10103			
10104			
10105			
10106			
10108			

Câu 4:

- Truy vấn:

```
CREATE VIEW order_product_info AS
SELECT
  od.orderNumber,
  od.productCode,
  p.productName,
  od.quantityOrdered
FROM
  orderdetails od
JOIN
  products p ON od.productCode = p.productCode;
```

- Kết quả: Tạo thành công

#	Time	Action	Message	Duration / Fetch
3	14:59:01	SELECT c.customerNumber, c.salesRepEmployeeNumber, e.officeCode FROM customers c left J...	122 row(s) returned	0.000 sec / 0.000 sec
4	15:00:12	SELECT c.customerNumber, c.creditLimit, p.checkNumber, p.paymentDate, p.amount FROM ...	297 row(s) returned	0.000 sec / 0.000 sec
5	15:05:07	SELECT DISTINCT o.orderNumber FROM orders o JOIN orderdetails od ON o.orderNumber = od.order...	262 row(s) returned	0.000 sec / 0.000 sec
6	15:15:15	CREATE VIEW order_product_info AS SELECT od.orderNumber, od.productCode, p.productName, ...	0 row(s) affected	0.000 sec

Câu 5:

- Truy vấn:

```
INSERT INTO offices (
  officeCode,
  city,
  phone,
  addressLine1,
  country,
```

```

        postalCode,
        territory
    )
VALUES (
    '8',
    'Ha Noi',
    '+84 123 123 123',
    '19 Le Thanh Nghi',
    'Viet Nam',
    'VN2022',
    'VN'
);

```

- **Kết quả:**

Output

Action Output

#	Time	Action	Message
9	15:18:42	INSERT INTO offices (officeCode, city, phone, addressLine1, country, postalCode, territ...	1 row(s) affected

Câu 6:

- **Truy vấn:**

```

UPDATE offices
SET phone = '+84 123 456 456'
WHERE officeCode = '8';

```

- **Kết quả:**

Output

Action Output

#	Time	Action	Message
11	15:20:45	UPDATE offices SET phone = '+84 123 456 456' WHERE officeCode = '8'	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0

Câu 7:

- **Truy vấn:**

```

DELETE FROM offices
WHERE officeCode = '8';

```

- **Kết quả:**

Output

Action Output

#	Time	Action	Message
✓ 13	15:21:41	DELETE FROM offices WHERE officeCode = '8'	1 row(s) affected

Câu 8:

- **Truy vấn thêm một bản ghi mới:**

```

INSERT INTO orderdetails (
    orderNumber,
    productCode,
    quantityOrdered,
    priceEach,
    orderLineNumber

```

```

)
VALUES (
    10425,
    'S32_2509',
    10,
    15.34,
    7
);

```

- **Truy vấn sửa số lượng đặt thành 20 (update):**

```

UPDATE orderdetails
SET quantityOrdered = 20
WHERE orderNumber = 10425
AND productCode = 'S32_2509';

```

- **Truy vấn xóa dòng vừa thêm:**

```

DELETE FROM orderdetails
WHERE orderNumber = 10425
AND productCode = 'S32_2509';

```

- **Kết quả:**

Output				
Action Output				
#	Time	Action	Message	
20	15:30:42	INSERT INTO orderdetails (orderNumber, productCode, quantityOrdered, priceEach, orderLine...	1 row(s) affected	
21	15:30:52	UPDATE orderdetails SET quantityOrdered = 20 WHERE orderNumber = 10425 AND productCode = 'S32_2...	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0	
22	15:31:03	DELETE FROM orderdetails WHERE orderNumber = 10425 AND productCode = 'S32_2509'	1 row(s) affected	

Câu 9:

Lỗi nằm ở quy tắc cơ bản của UNION: Số lượng cột trong các câu lệnh SELECT phải bằng nhau.

- **Truy vấn đã sửa:**

```

SELECT orderNumber, customerNumber
FROM orders
WHERE status = 'In Process'
UNION
SELECT orderNumber, NULL AS customerNumber
FROM orderdetails
WHERE quantityOrdered >= 45;

```

- **Kết quả:**

orderNumber	customerNumber
10420	282
10421	124
10422	157
10423	314
10424	141
10425	119
10100	NULL
10101	NULL

Câu 10:

Lỗi nằm ở giá trị VN10000. Đây là một chuỗi ký tự (văn bản), nhưng nó không được đặt trong dấu nháy đơn ('). Và trong cơ sở dữ liệu classicmodels mẫu, cột orderNumber trong bảng orders được định nghĩa là kiểu số nguyên (INT), không phải kiểu chuỗi (VARCHAR), nên không thể chèn "VN10000".

Field	Type	Null	Key	Default	Extra
orderNumber	int	NO	PRI	NULL	

- **Truy vấn đã sửa lại:**

```
INSERT INTO orders (orderNumber, orderDate, requiredDate, status, customerNumber)
VALUES ('10000', '2022-09-12', '2022-09-15', 'In Process', 121);
```

- **Kết quả:**

#	Time	Action	Message
26	15:41:42	INSERT INTO orders (orderNumber, orderDate, requiredDate, status, customerNumber) VALUES ('VN10000', '...	Error Code: 1366. Incorrect integer value: 'VN10000' for column 'orderNumber' at row 1
27	15:43:05	DESCRIBE orders	7 row(s) returned
28	15:44:48	INSERT INTO orders (orderNumber, orderDate, requiredDate, status, customerNumber) VALUES ('10000', '202...	1 row(s) affected

Câu 11:

- **Truy vấn:**

```
SELECT
    e.officeCode,
    e.employeeNumber
FROM
    employees e
LEFT JOIN
    customers c ON e.employeeNumber = c.salesRepEmployeeNumber
WHERE
    c.salesRepEmployeeNumber IS NULL
ORDER BY
    e.officeCode, e.employeeNumber;
```

- **Kết quả:**

officeCode	employeeNumber
1	1002
1	1056
1	1076
1	1143
4	1102
5	1625
6	1088

Câu 12:

- **Truy vấn:**

```
SELECT
    e.officeCode AS MaChiNhanh,
```

```

SUM(p.amount) AS DoanhThu
FROM payments p
JOIN customers c ON p.customerNumber = c.customerNumber
JOIN employees e ON c.salesRepEmployeeNumber = e.employeeNumber
GROUP BY e.officeCode
ORDER BY e.officeCode;

```

- **Kết quả:**

Result Grid		Filter Rows:	Export:	Wrap Cell Content:
	MaChiNhanh	DoanhThu		
▶	1	1337439.58		
	2	835882.33		
	3	1072619.47		
	4	2819168.90		
	5	457110.07		
	6	1007292.98		
	7	1324325.90		

Câu 13:

- **Tạo View thống kê số lượng văn phòng mỗi nước:**

```

CREATE VIEW vw_Office_Count AS
SELECT
    country,
    COUNT(*) AS SoLuongVanPhong
FROM offices
GROUP BY country;

```

- **Tạo View thống kê số lượng nhân viên mỗi nước:**

```

CREATE VIEW vw_Employee_Count AS
SELECT
    o.country,
    COUNT(*) AS SoLuongNhanVien
FROM employees e
JOIN offices o ON e.officeCode = o.officeCode
GROUP BY o.country;

```

- **Tạo View thống kê số lượng khách hàng mỗi nước:**

```

CREATE VIEW vw_Customer_Count AS
SELECT
    country,
    COUNT(*) AS SoLuongKhachHang
FROM customers
GROUP BY country;

```

- **Kết quả:**

```

1 • SELECT * FROM vw_Office_Count;
2
3 • SELECT * FROM vw_Employee_Count;
4
5 • SELECT * FROM vw_Customer_Count;

```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: **IF**

country	SoluongKhachHang
France	12
USA	36
Australia	5
Norway	1
Poland	1
Germany	13
Spain	7
Sweden	2

vw_Office_Count 15 vw_Employee_Count 16 vw_Customer_Count 17 x Read O

Output

Action Output

#	Time	Action	Message
39	16:53:02	SELECT * FROM vw_Office_Count LIMIT 0, 1000	5 row(s) returned
40	16:53:02	SELECT * FROM vw_Employee_Count LIMIT 0, 1000	5 row(s) returned
41	16:53:02	SELECT * FROM vw_Customer_Count LIMIT 0, 1000	28 row(s) returned

Câu 14:

- Truy vấn:

```

SELECT
    p.productCode,
    p.productName
FROM products p
WHERE
    p.productCode NOT IN (
        SELECT DISTINCT od.productCode
        FROM orderdetails od
        JOIN orders o ON od.orderNumber = o.orderNumber
        JOIN customers c ON o.customerNumber = c.customerNumber
        WHERE c.country = 'France'
    )
ORDER BY
    p.productCode;

```

- Kết quả:

Result Grid | Filter Rows: | Edit: | Export/Import:

productCode	productName
S18_3233	1985 Toyota Supra
S18_4027	1970 Triumph Spitfire
NULL	NULL

Câu 15:

- Tạo bảng:

```
CREATE TABLE offices_usa (  
    officeCode TINYINT PRIMARY KEY,  
    city VARCHAR(50),  
    phone VARCHAR(50)  
);
```

- **Chèn dữ liệu từ bảng offices vào offices_usa**

```
INSERT INTO offices_usa (officeCode, city, phone)  
SELECT officeCode, city, phone  
FROM offices  
WHERE country = 'USA';
```

- **Kết quả:**

Result Grid	Filter Rows:	Edit:	Export/Import:	Wrap Cell Content:
officeCode	city	phone		
1	San Francisco	+1 650 219 4782		
2	Boston	+1 215 837 0825		
3	NYC	+1 212 555 3000		
NULL	NULL	NULL		