MIS 3306 Database Management Systems

Module 7-1 Exercise

Required for Grading (Type Your Name Below):

I am Riyan Rattan (type your full name) and I complete this assignment following the UHD academic integrity policy.

Read Before Starting this Assignment:

- The Module 8 Exercise is **not** a prerequisite for this exercise.
- Do **not** use the database from Module 8 exercise. Using the database here will result in errors or wrong answers.
- **ALL** the SQL answers can be found in the textbook Chapter 7. Slight modifications on column names or values may be needed.
- Keep in mind that the database server will **not** keep a copy of your SQL codes. Therefore, please save your SQL codes as SQL script files (*.sql), for your own reference.
- Your answer is required when you see the red answer box like the box below.

Answer here:

<<This is an example. Answer whenever you see this.>>

You will build a vendor-product database and retrieve data from it. The ERD and the data dictionary are shown below.

Symbol	Meaning
	Primary key
	Foreign key
	Column (Not null)
	Column (Could be null)
CUS_CODE INT(11)	Attribute (CUS_CODE) and its data type (INT(11))

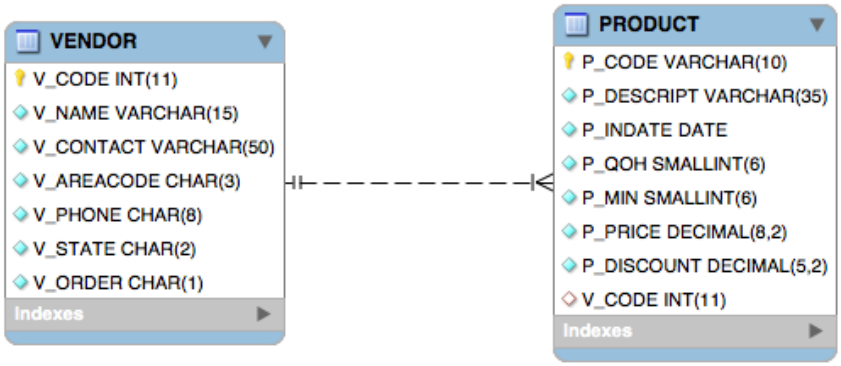


TABLE	COLUMN	Content	TYPE	PK or FK	FK REFERENCE
PRODUCT	P_CODE	Product code	VARCHAR(10)	PK	
	P_DESCRIPT	Product description	VARCHAR(35)		
	P_INDATE	Stocking date	DATETIME		
	P_QOH	Units available	SMALLINT(6)		
	P_MIN	Minimum units	SMALLINT(6)		
	P_PRICE	Product price	DECIMAL(8,2)		
	P_DICSOUNT	Discount rate	DECIMAL(5,2)		
	V_CODE	Vendor code	INT(11)	FK	VENDOR(V_CODE)
VENDOR	V_CODE	Vendor code	INT(11)	PK	
	V_NAME	Vendor name	VARCHAR(30)		
	V_CONTACT	Contact person	VARCHAR(50)		
	V_AREACODE	Phone area code	CHAR(3)		
	V_PHONE	Phone number	CHAR(8)		
	V_STATE	State	CHAR(2)		
	V_ORDER	Previous order	CHAR(1)		

PART I: Prepare the Database

1. **Create a database and use the database.**
   - **Do not** use the M8 database/script for this exercise (and vice versa). Using wrong databases will result in error messages. The databases were slightly modified for their particular learning objectives.
   - Open your Workbench. Connect to the local instance (database server).
   - Click File → Open SQL Script…, or click  to open the "DB_M7_Table&Data.sql" script.
   - Click  to execute the script. The script creates a database "DB_M7" with tables and data.

   Note: If you double click the SQL script, your Workbench will only open the file but will **not** connect to the database server. You have to follow the steps above to connect to the database server and open the script.

2. **Insert data with your name**
   - Type the following code in the SQL query editor at the end of the "DB_M7_Table&Data.sql" script. Replace "yourname" with your first name and last name. This is required for grading. The following are the codes that you should modify.

   INSERT INTO VENDOR VALUES(11111, yourname in apostraphe, 'UHD', '713', '221-8000', 'TX', 'Y');
   INSERT INTO PRODUCT VALUES('111UHD', yourname design in apostrophe, '2026-11-11', 100, 10, 999.99, 0, 11111);

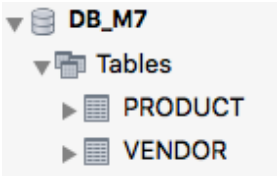
   The codes should look like this in Workbench after you type and modify. Replace my names with your names.

```
INSERT INTO VENDOR VALUES (11111, 'Shuaifu Lin', 'UHD', '713', '221-8000', 'TX', 'Y');

INSERT INTO PRODUCT VALUES ('111UHD', 'Shuaifu Lin Design', '2026-11-11', 100, 10, 999.99, 0, 11111);
```

   Note: Have to put values within apostrophes when the data format is characters or dates. No apostrophe is needed when the data format is integer or decimal.

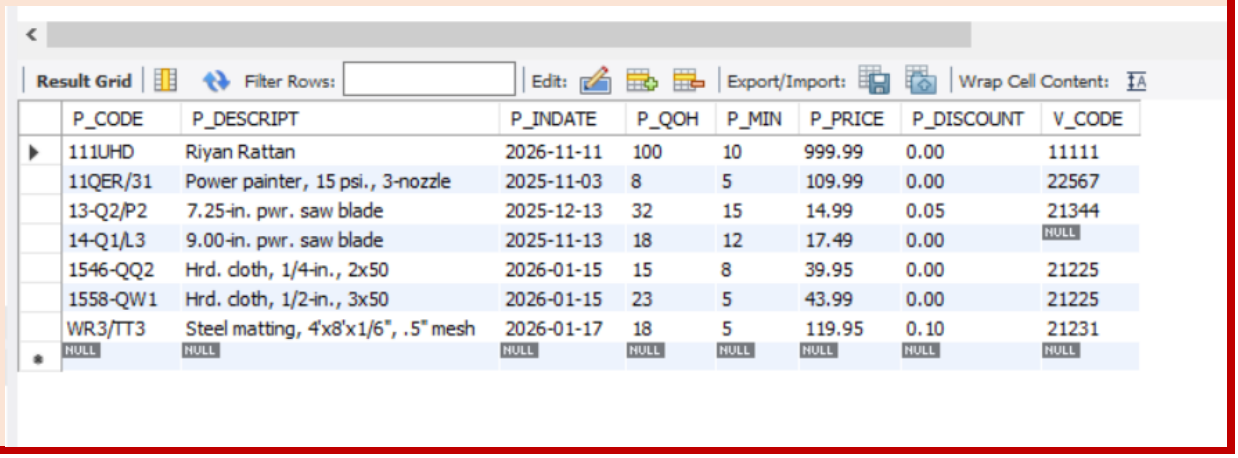
   - Highlight the two INSERT INTO statements and click  to execute
   - Refresh the schemas and expand it to list the tables (like the figure below).



   - Right click the PRODUCT table and click "Select Rows – Limit 1000". You will see the data of your PRODUCT table. The result should list your name design computer as the first row. Use the snipping tool or Grab and take a screenshot (like the figure below).

P_CODE	P_DESCRIPT	P_INDATE	P_QOH	P_MIN	P_PRICE	P_DISCOU…	V_CODE
111UHD	Shuaifu Lin Design	2026-11-11	100	10	999.99	0.00	11111
11QER/31	Power painter, 15 psi., 3-nozzle	2025-11-03	8	5	109.99	0.00	22567
13-Q2/P2	7.25-in. pwr. saw blade	2025-12-13	32	15	14.99	0.05	21344
14-Q1/L3	9.00-in. pwr. saw blade	2025-11-13	18	12	17.49	0.00	NULL
1546-Q…	Hrd. cloth, 1/4-in., 2x50	2026-01-15	15	8	39.95	0.00	21225
1558-Q…	Hrd. cloth, 1/2-in., 3x50	2026-01-15	23	5	43.99	0.00	21225
WR3/TT3	Steel matting, 4'x8'x1/6", .5" mesh	2026-01-17	18	5	119.95	0.10	21231
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

Answer here:
Grading requirement: The image should clearly show your name in the first row.



Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

P_CODE	P_DESCRIPT	P_INDATE	P_QOH	P_MIN	P_PRICE	P_DISCOUNT	V_CODE
111UHD	Riyan Rattan	2026-11-11	100	10	999.99	0.00	11111
11QER/31	Power painter, 15 psi., 3-nozzle	2025-11-03	8	5	109.99	0.00	22567
13-Q2/P2	7.25-in. pwr. saw blade	2025-12-13	32	15	14.99	0.05	21344
14-Q1/L3	9.00-in. pwr. saw blade	2025-11-13	18	12	17.49	0.00	NULL
1546-QQ2	Hrd. cloth, 1/4-in., 2x50	2026-01-15	15	8	39.95	0.00	21225
1558-QW1	Hrd. cloth, 1/2-in., 3x50	2026-01-15	23	5	43.99	0.00	21225
WR3/TT3	Steel matting, 4'x8'x1/6", .5" mesh	2026-01-17	18	5	119.95	0.10	21231
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

PART II: The SELECT Statement
Textbook 7-3

If you have closed Workbench earlier and just reopen to continue your work, you need to "use" the database before executing commands into the database. Execute the following code.

```
USE DB_M7;
```

Alternatively, you can choose the DB_M7 database in Workbench, right click and choose "**set as default schema**".

3. Answer all the SQL query questions like the exemplary answer here.

- **The answer contains both the codes and the result.**
- **The answer meets the grading requirement.**
- **The answer is clear (readable).**

List **product** code, **description**, **unit price**, and **quantity** on hand from the **product** table. (You do not need to answer this question).

Answer here:

Grading requirement: 1. Include both the code and the result data (1 point for each). 2. The result should include your name (0 point when the result is wrong).

```
2  SELECT P_CODE, P_DESCRIPT, P_PRICE, P_QOH
3  FROM PRODUCT;
```

100% 14:3

Result Grid | Filter Rows: Search | Edit:

P_CODE	P_DESCRIPT	P_PRICE	P_QOH
111UHD	Shuaifu Lin Design	999.99	100
11QER/31	Power painter, 15 psi., 3-nozzle	109.99	8
13-Q2/P2	7.25-in. pwr. saw blade	14.99	32
14-Q1/L3	9.00-in. pwr. saw blade	17.49	18
1546-Q...	Hrd. cloth, 1/4-in., 2x50	39.95	15
1558-Q...	Hrd. cloth, 1/2-in., 3x50	43.99	23
WR3/TT3	Steel matting, 4'x8'x1/6", .5" mesh	119.95	18
NULL	NULL	NULL	NULL

```
SELECT P_CODE, P_DESCRIPT, P_PRICE, P_QOH
FROM PRODUCT
```

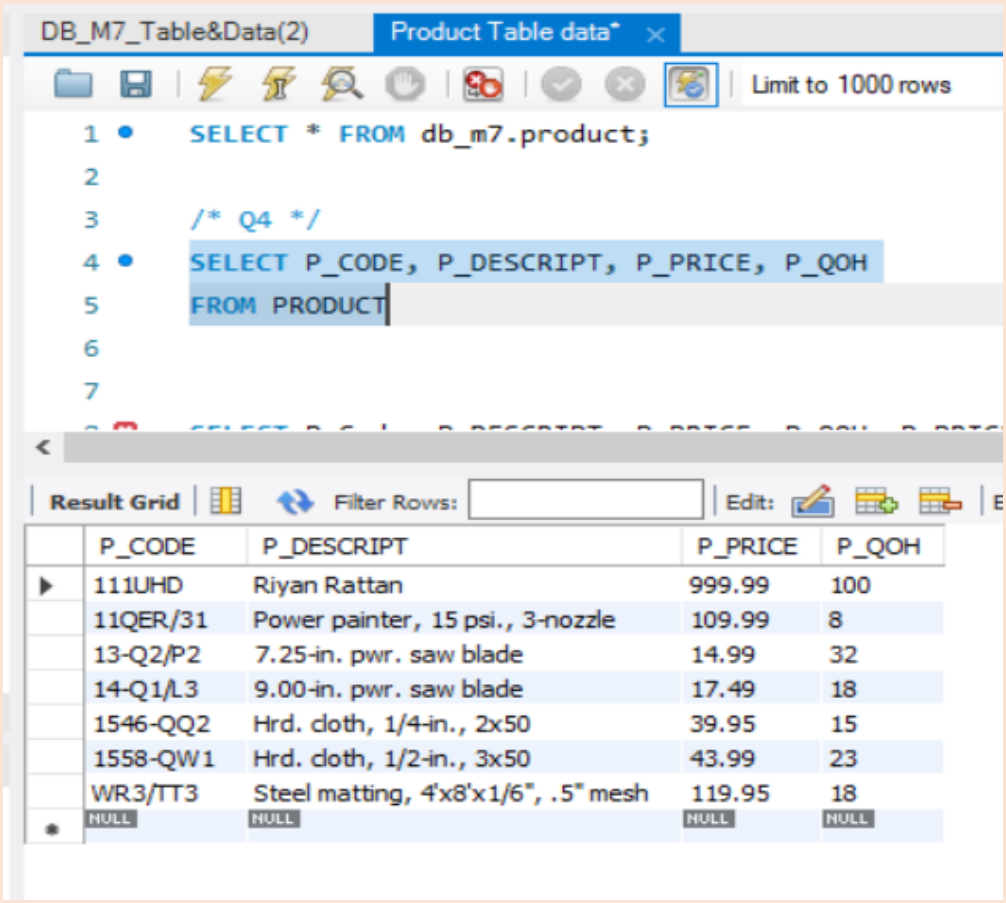
4. Using column aliases

List product code, description, unit price, and quantity on hand from the product table. Show the description as "DESCRIPTION", the unit price as "UNIT PRICE" and the quantity on hand as "QTY".

Same as number 3 but you will have your name

Answer here:

Grading requirement: 1. Include both the code and the result data (1 point for each). 2. The result should include your name (0 point when the result is wrong).



P_CODE	P_DESCRIPT	P_PRICE	P_QOH
111UHD	Riyan Rattan	999.99	100
11QER/31	Power painter, 15 psi., 3-nozzle	109.99	8
13-Q2/P2	7.25-in. pwr. saw blade	14.99	32
14-Q1/L3	9.00-in. pwr. saw blade	17.49	18
1546-QQ2	Hrd. cloth, 1/4-in., 2x50	39.95	15
1558-QW1	Hrd. cloth, 1/2-in., 3x50	43.99	23
WR3/TT3	Steel matting, 4'x8'x1/6", .5" mesh	119.95	18
NULL	NULL	NULL	NULL

5. Using computed columns

List product description, quantity on hand, unit price, and the total value of each of the products in inventory. Make the output readable.

Answer here:
Grading requirement: 1. Include both the code and the result data (1 point for each). 2. The result should include your name (0 point when the result is wrong).

```
1  SELECT * FROM db_m7.product;
2
3  SELECT P_Code, P_DESCRIPT, P_PRICE, P_QOH, P_PRICE*P_QOH AS TotalValue
4  FROM PRODUCT
```

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

P_Code	P_DESCRIPT	P_PRICE	P_QOH	TotalValue
111UHD	Riyan Rattan	999.99	100	99999.00
11QER/31	Power painter, 15 psi., 3-nozzle	109.99	8	879.92
13-Q2/P2	7.25-in. pwr. saw blade	14.99	32	479.68
14-Q1/L3	9.00-in. pwr. saw blade	17.49	18	314.82
1546-QQ2	Hrd. cloth, 1/4-in., 2x50	39.95	15	599.25
1558-QW1	Hrd. cloth, 1/2-in., 3x50	43.99	23	1011.77
WR3/TT3	Steel matting, 4'x8'x1/6", .5" mesh	119.95	18	2159.10

6. Listing unique values
   List the different vendor codes in the product table. Vendor codes should not repeat.

Answer here:
Grading requirement: 1. Include both the code and the result data (1 point for each). 2. The result should include your vendor code (0 point when the result is wrong).

```
11      /* Q6 */
12      SELECT DISTINCT V_CODE
13      FROM PRODUCT;
14
15      /* Q7 */
16      SELECT P_Code, V_Code, V_Name
```

Result Grid | Filter Rows: | Export:

V_CODE
NULL
11111
21225
21231
21344
22567

PART III: The FROM Clause and JOIN
Textbook 7-4

7. JOIN USING syntax (supported in Oracle and MySQL ONLY)

Perform a **join** of the product (left) and the vendor (right) table.
List only product code, vendor code, and vendor name. Use the JOIN USING syntax and use the V_CODE to join.

Answer here:

Grading requirement: 1. Include both the code and the result data (1 point for each). 2. The result should include your name (0 point when the result is wrong).

```
5
6      /* Q7 */
7 •    SELECT P_Code, V_Code, V_Name
8      FROM PRODUCT JOIN VENDOR USING (V_CODE);
```

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

P_Code	V_Code	V_Name
111UHD	11111	Riyan Rattan
1546-QQ2	21225	Bryson, Inc.
1558-QW1	21225	Bryson, Inc.
WR3/TT3	21231	D&E Supply
13-Q2/P2	21344	Gomez Bros.
11QER/31	22567	Dome Supply

the vendor codes should match

```
7 •    SELECT * FROM PRODUCT JOIN VENDOR;
```

_DISCOUNT	V_CODE	V_CODE	
00	11111	22567	D
00	11111	21344	G
00	11111	21231	D
00	11111	21226	S

not like this

8. JOIN ON syntax (USUALLY COMMON)

Perform a join of the product (left) and the vendor (right) table. List only product code, vendor code, and vendor name. Use the JOIN ON syntax and the V_CODE to join.

Answer here:

Grading requirement: 1. Include both the code and the result data (1 point for each). 2. The result should include your name (0 point when the result is wrong).

```
10      /*Q8*/
11 •    SELECT P_Code, PRODUCT.V_Code, V_Name
12      FROM PRODUCT JOIN VENDOR
13          ON PRODUCT.V_Code=VENDOR.V_Code;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Cont

P_Code	V_Code	V_Name
111UHD	11111	Riyan Rattan
1546-QQ2	21225	Bryson, Inc.
1558-QW1	21225	Bryson, Inc.
WR3/TT3	21231	D&E Supply
13-Q2/P2	21344	Gomez Bros.
11QER/31	22567	Dome Supply

9. **Outer joins (left)**
   Perform a join of the product (left) and the vendor (right) table. List only product code, vendor code, and vendor name for all products, including the products with no matching vendors.
   NEED TO SPECIFY **LEFT** OUTER

Answer here:
Grading requirement: 1. Include both the code and the result data (1 point for each). 2. The result should include your name (0 point when the result is wrong).

```
15      /*Q9*/
16  •   SELECT P_Code, PRODUCT.V_Code, V_Name
17      FROM PRODUCT LEFT OUTER JOIN VENDOR
18          ON PRODUCT.V_Code=VENDOR.V_Code;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Co

P_Code	V_Code	V_Name
14-Q1/L3	NULL	NULL
111UHD	11111	Riyan Rattan
1546-QQ2	21225	Bryson, Inc.
1558-QW1	21225	Bryson, Inc.
WR3/TT3	21231	D&E Supply
13-Q2/P2	21344	Gomez Bros.
11QER/31	22567	Dome Supply

10. Outer joins (right)
    Perform a join of the product (left) and the vendor (right) table. List only product code, vendor code, and vendor name for all products, including the vendors with no matching products.

Answer here:
Grading requirement: 1. Include both the code and the result data (1 point for each). 2. The result should include your name (0 point when the result is wrong).

```
29      /*Q10*/
30  •   SELECT P_Code, PRODUCT.V_Code, V_Name
31      FROM PRODUCT RIGHT OUTER JOIN VENDOR
32          ON PRODUCT.V_Code=VENDOR.V_Code;
33
```

Result Grid | Filter Rows: | Export: | Wra

P_Code	V_Code	V_Name
111UHD	11111	Riyan Rattan
1546-QQ2	21225	Bryson, Inc.
1558-QW1	21225	Bryson, Inc.
NULL	NULL	SuperLoo, Inc.
WR3/TT3	21231	D&E Supply
13-Q2/P2	21344	Gomez Bros.
11QER/31	22567	Dome Supply

11. Joining tables with an alias
    Perform a join of the product (left) and the vendor (right) table. List only product description, product price, vendor name, vendor area code, and vendor phone. Use the **JOIN ON syntax** and the V_CODE to join. Use alias names for the table names.

Answer here:

Grading requirement: 1. Include both the code and the result data (1 point for each). 2. The result should include your name (0 point when the result is wrong).

```
34    /*Q11 - Joining Tables with an Alias: An alias may be used to identify the source table from which the data is taken */
35    SELECT P_DESCRIPT, P_PRICE, V_NAME, V_AREACODE, V_PHONE
36    FROM PRODUCT P JOIN VENDOR V ON P.V_CODE = V.V_CODE;
```

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

P_DESCRIPT	P_PRICE	V_NAME	V_AREACODE	V_PHONE
Riyan Rattan	999.99	Riyan Rattan	713	221-8000
Power painter, 15 psi., 3-nozzle	109.99	Dome Supply	901	678-1419
7.25-in. pwr. saw blade	14.99	Gomez Bros.	615	889-2546
Hrd. cloth, 1/4-in., 2x50	39.95	Bryson, Inc.	615	223-3234
Hrd. cloth, 1/2-in., 3x50	43.99	Bryson, Inc.	615	223-3234
Steel matting, 4'x8'x1/6", .5" mesh	119.95	D&E Supply	615	228-3245

PART IV: The ORDER BY Clause
Textbook 7-5

12. The ORDER BY clause: Ascending order

List product code, description, unit price, and quantity on hand from the product table. List the content by price in ascending order.

Answer here:

Grading requirement: 1. Include both the code and the result data (1 point for each). 2. The result should include your name (0 point when the result is wrong).

```
39      /*Q12 - the contents of the PRODUCT table to be listed
40 •    SELECT P_CODE, P_DESCRIPT, P_QOH, P_PRICE
41      FROM PRODUCT
42      ORDER BY P_PRICE;
```

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

P_CODE	P_DESCRIPT	P_QOH	P_PRICE
13-Q2/P2	7.25-in. pwr. saw blade	32	14.99
14-Q1/L3	9.00-in. pwr. saw blade	18	17.49
1546-QQ2	Hrd. cloth, 1/4-in., 2x50	15	39.95
1558-QW1	Hrd. cloth, 1/2-in., 3x50	23	43.99
11QER/31	Power painter, 15 psi., 3-nozzle	8	109.99
WR3/TT3	Steel matting, 4'x8'x1/6", .5" mesh	18	119.95
111UHD	Riyan Rattan	100	999.99
NULL	NULL	NULL	NULL

13. The Order By clause: Descending order

List product code, description, unit price, and quantity on hand from the product table. List the content by price in descending order.

Answer here:
Grading requirement: 1. Include both the code and the result data (1 point for each). 2. The result should include your name (0 point when the result is wrong).

```
44      /*Q13 - produce the listing with products sorted ir
45      SELECT P_CODE, P_DESCRIPT, P_QOH, P_PRICE
46      FROM PRODUCT
47      ORDER BY P_PRICE DESC;
48
49
```

Result Grid | Filter Rows: | Edit:

P_CODE	P_DESCRIPT	P_QOH	P_PRICE
111UHD	Riyan Rattan	100	999.99
WR3/TT3	Steel matting, 4'x8'x1/6", .5" mesh	18	119.95
11QER/31	Power painter, 15 psi., 3-nozzle	8	109.99
1558-QW1	Hrd. cloth, 1/2-in., 3x50	23	43.99
1546-QQ2	Hrd. cloth, 1/4-in., 2x50	15	39.95
14-Q1/L3	9.00-in. pwr. saw blade	18	17.49
13-Q2/P2	7.25-in. pwr. saw blade	32	14.99
NULL	NULL	NULL	NULL

PART V: The WHERE Clause
Textbook 7-6

14. Selecting rows with conditional restrictions: **Equal to**
List product description, quantity on hand, unit price, and vendor code from the product table, with a vendor code of **11111**.

Answer here:
Grading requirement: 1. Include both the code and the result data (1 point for each). 2. The result should include your name (0 point when the result is wrong).

```
20      /*Q14*/
21      SELECT  P_Descript, P_QOH, P_Price, V_Code
22      FROM    PRODUCT
23      WHERE   V_Code=11111;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Cont

P_Descript	P_QOH	P_Price	V_Code
Riyan Rattan	100	999.99	11111

15. Selecting rows with conditional restrictions: Not equal to: (use ! or <>)
List product description, quantity on hand, unit price, and vendor code from the product table, with a vendor code other than **11111**.

Answer here:
Grading requirement: 1. Include both the code and the result data (1 point for each). 2. The result should **not** include your name (0 point when the result is wrong).

```
25    /*Q15 not equal to*/
26    SELECT  P_Descript, P_QOH, P_Price, V_Code
27    FROM    PRODUCT
28    WHERE   V_Code!=11111;
```

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

P_Descript	P_QOH	P_Price	V_Code
Hrd. cloth, 1/4-in., 2x50	15	39.95	21225
Hrd. cloth, 1/2-in., 3x50	23	43.99	21225
Steel matting, 4'x8'x1/6", .5" mesh	18	119.95	21231
7.25-in. pwr. saw blade	32	14.99	21344
Power painter, 15 psi., 3-nozzle	8	109.99	22567

16. Selecting rows with conditional restrictions: **Greater than**
    List product description, quantity on hand, minimum stock, and unit price from the product table, with the unit price greater than **100**.

Answer here:
Grading requirement: 1. Include both the code and the result data (1 point for each). 2. The result should include your name (0 point when the result is wrong).

```
60      /*Q16 Greater Than*/
61      SELECT P_DESCRIPT, P_QOH, P_MIN, P_PRICE
62      FROM PRODUCT
63      WHERE P_PRICE > 100;
64
```

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

P_DESCRIPT	P_QOH	P_MIN	P_PRICE
Riyan Rattan	100	10	999.99
Power painter, 15 psi., 3-nozzle	8	5	109.99
Steel matting, 4'x8'x1/6", .5" mesh	18	5	119.95

17. Selecting rows with conditional restrictions: **For date/time data type**
    List product description, quantity on hand, minimum stock, unit price, and stocking date from the product table, with the stocking date on or after January 1, 2026 (in MySQL, the date format is YYYY-MM-DD).

Answer here:
Grading requirement: 1. Include both the code and the result data (1 point for each). 2. The result should include your name (0 point when the result is wrong).

```
65      /*Q17 -  For date/time data type (date format is YYYY-MM-DD). */
66      SELECT P_DESCRIPT, P_QOH, P_MIN, P_PRICE, P_INDATE
67      FROM PRODUCT
68      WHERE P_INDATE >= '2026-01-01';
```

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

P_DESCRIPT	P_QOH	P_MIN	P_PRICE	P_INDATE
Riyan Rattan	100	10	999.99	2026-11-11
Hrd. cloth, 1/4-in., 2x50	15	8	39.95	2026-01-15
Hrd. cloth, 1/2-in., 3x50	23	5	43.99	2026-01-15
Steel matting, 4'x8'x1/6", .5" mesh	18	5	119.95	2026-01-17

PART VI: The Logical Operators: AND, OR, and NOT
Textbook 7-6d (pg 273)

18. The OR operator
    List product description, quantity on hand, unit price, and vendor code from the product table, with a vendor code of **21225** or **11111**.

Answer here:
Grading requirement: 1. Include both the code and the result data (1 point for each). 2. The result should include your name (0 point when the result is wrong).

```
71      /*Q18 - The OR operator */
72      SELECT P_DESCRIPT, P_QOH, P_PRICE, V_CODE
73      FROM PRODUCT
74      WHERE V_CODE = 21225  OR V_CODE = 11111;
75
76
```

Result Grid | Filter Rows: | Export: | Wrap Cell Co

P_DESCRIPT	P_QOH	P_PRICE	V_CODE
Riyan Rattan	100	999.99	11111
Hrd. cloth, 1/4-in., 2x50	15	39.95	21225
Hrd. cloth, 1/2-in., 3x50	23	43.99	21225

19. The AND operator
    List product description, quantity on hand, minimum stock, and unit price from the product table, with the *unit price* **greater than 100** and *quantity on hand* **greater than 10**.

Answer here:
Grading requirement: 1. Include both the code and the result data (1 point for each). 2. The result should include your name (0 point when the result is wrong).

```
76      /*Q19 - The AND operator */
77      SELECT P_DESCRIPT, P_QOH, P_MIN, P_PRICE
78      FROM PRODUCT
79      WHERE P_PRICE > 100
80      AND P_QOH > 10;
81
```

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

P_DESCRIPT	P_QOH	P_MIN	P_PRICE
Riyan Rattan	100	10	999.99
Steel matting, 4'x8'x1/6", .5" mesh	18	5	119.95

20. Using more than one operator

List product description, quantity on hand, minimum stock, and unit price from the product table. The result should meet both of the following two conditions:

- The V_CODE is either 21225 or 11111.
- The P_PRICE is greater than 40.

Answer here:
Grading requirement: 1. Include both the code and the result data (1 point for each). 2. The result should include your name (0 point when the result is wrong).

```
36    /*Q20*/
37    SELECT P_Descript, P_QOH, P_Min, P_Price, V_Code
38    FROM PRODUCT
39    WHERE (V_Code=21225 OR V_Code=11111) AND P_Price>40;
```

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

P_Descript	P_QOH	P_Min	P_Price	V_Code
Riyan Rattan	100	10	999.99	11111
Hrd. cloth, 1/2-in., 3x50	23	5	43.99	21225

21. For the two operators AND and OR…

Answer here:

The DBMS executes the AND operator before the OR operator, when no parenthesis presents.

22. The NOT operator
    List all columns form the product table, for products whose vendor code is **not** 21344. Must use the NOT operator.

Answer here:

Grading requirement: 1. Include both the code and the result data (1 point for each). 2. The result should include your name (0 point when the result is wrong).

```
90      /*Q22 - The NOT operator*/
91 •    SELECT *
92      FROM PRODUCT
93      WHERE NOT (V_CODE = 21344);
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

P_CODE	P_DESCRIPT	P_INDATE	P_QOH	P_MIN	P_PRICE	P_DISCOUNT	V_CODE
111UHD	Riyan Rattan	2026-11-11	100	10	999.99	0.00	11111
1546-QQ2	Hrd. cloth, 1/4-in., 2x50	2026-01-15	15	8	39.95	0.00	21225
1558-QW1	Hrd. cloth, 1/2-in., 3x50	2026-01-15	23	5	43.99	0.00	21225
WR3/TT3	Steel matting, 4'x8'x1/6", .5" mesh	2026-01-17	18	5	119.95	0.10	21231
11QER/31	Power painter, 15 psi., 3-nozzle	2025-11-03	8	5	109.99	0.00	22567
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

PART VII: Special Operators: BETWEEN, IN, LIKE, and IS NULL
Textbook 7-6f

23. Using BETWEEN

List all columns form the product table, for products whose prices are between $100 and $1000. Use BETWEEN.

Answer here:

Grading requirement: 1. Include both the code and the result data (1 point for each). 2. The result should include your name (0 point when the result is wrong).

```
96      /* Q23 - Using BETWEEN */
97  •   SELECT *
98      FROM PRODUCT
99      WHERE P_PRICE BETWEEN 100.00 AND 1000.00;
100
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

P_CODE	P_DESCRIPT	P_INDATE	P_QOH	P_MIN	P_PRICE	P_DISCOUNT	V_CODE
111UHD	Riyan Rattan	2026-11-11	100	10	999.99	0.00	11111
11QER/31	Power painter, 15 psi., 3-nozzle	2025-11-03	8	5	109.99	0.00	22567
WR3/TT3	Steel matting, 4'x8'x1/6", .5" mesh	2026-01-17	18	5	119.95	0.10	21231
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

24. Using IN

List all columns form the product table, for products whose vendor code is 21225 or 11111. Use IN.

Answer here:

Grading requirement: 1. Include both the code and the result data (1 point for each). 2. The result should include your name (0 point when the result is wrong).

```
41      /*Q24*/
42  •   SELECT *
43      FROM PRODUCT
44      WHERE V_Code IN (21225, 11111);
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

P_CODE	P_DESCRIPT	P_INDATE	P_QOH	P_MIN	P_PRICE	P_DISCOUNT	V_CODE
111UHD	Riyan Rattan	2026-11-11	100	10	999.99	0.00	11111
1546-QQ2	Hrd. cloth, 1/4-in., 2x50	2026-01-15	15	8	39.95	0.00	21225
1558-QW1	Hrd. cloth, 1/2-in., 3x50	2026-01-15	23	5	43.99	0.00	21225
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

25. Using LIKE

List name, contact, area code, and phone number from the vendor table, with a contact name beginning with Smith.

Answer here:

Grading requirement: 1. Include both the code and the result data (1 point for each). 2. The result should **not** include your name (0 point when the result is wrong).

```
30  /*Q25; smith% means everything begins with smith; %smith% means everything include smith; % means any characters; underscore ___
31  means one character*/
32  SELECT V_Name, V_Contact, V_AreaCode, V_Phone
33  FROM VENDOR
34  WHERE V_Contact LIKE 'smith%';
```

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

V_Name	V_Contact	V_AreaCode	V_Phone
Bryson, Inc.	Smithson	615	223-3234
Dome Supply	Smith	901	678-1419

26. Using **IS NULL**

Find the product whose V_CODE does not contain a value. List its product code, description, and vendor code.

Answer here:
Grading requirement: 1. Include both the code and the result data (1 point for each). 2. The result should **not** include your name (0 point when the result is wrong).

```
115     /* Q26 - Using IS NULL*/
116 •   SELECT P_CODE, P_DESCRIPT, V_CODE
117     FROM PRODUCT
118     WHERE V_CODE IS NULL;
```

Result Grid | Filter Rows: | Edit:

P_CODE	P_DESCRIPT	V_CODE
14-Q1/L3	9.00-in. pwr. saw blade	NULL
NULL	NULL	NULL