

## CHAPTER 5 CRUD OPERATIONS

1. Write an INSERT statement that adds this row to the Terms table:

terms\_id: 6  
terms\_description: Net due 120 days  
terms\_due\_days: 120

Use MySQL Workbench to review the column definitions for the Terms table, and include a column list with the required columns in the INSERT statement.

### ANSWER:

use ap;

insert INTO terms

(terms\_id, terms\_description, terms\_due\_days)

VALUES

(6, 'Net due 120 days', 120)

Table: **terms**

Columns:

- terms\_id int(11) AI PK
- terms\_description varchar(50)
- terms\_due\_days int(11)

Query 1: terms

```
1 • use ap;  
2 • insert INTO terms  
3   (terms_id, terms_description, terms_due_days)  
4   VALUES  
5   (6, 'Net due 120 days', 120);
```

Output

#	Time	Action	Message
1	20:55:06	INSERT INTO terms (terms_id, terms_description, terms_due_days) VALUES (6, 'Net due 120 days', 120)	Error Code: 1046. No database select
2	20:55:21	use ap INSERT INTO terms (terms_id, terms_description, terms_due_days) VALUES (6, 'Net due 120 d...	Error Code: 1064. You have an error in
3	20:55:36	use ex INSERT INTO terms (terms_id, terms_description, terms_due_days) VALUES (6, 'Net due 120 d...	Error Code: 1064. You have an error in
4	20:56:07	use ex	0 row(s) affected
5	20:56:07	insert INTO terms (terms_id, terms_description, terms_due_days) VALUES (6, 'Net due 120 days', 120)	Error Code: 1146. Table 'ex.terms' doe
6	20:56:29	use ap	0 row(s) affected
7	20:56:29	insert INTO terms (terms_id, terms_description, terms_due_days) VALUES (6, 'Net due 120 days', 120)	1 row(s) affected
8	20:57:01	SELECT * FROM ap.terms LIMIT 0, 1000	6 row(s) returned

2. Write an UPDATE statement that modifies the row you just added to the Terms table. This statement should change the terms\_description column to “Net due 125 days”, and it should change the terms\_due\_days column to 125.

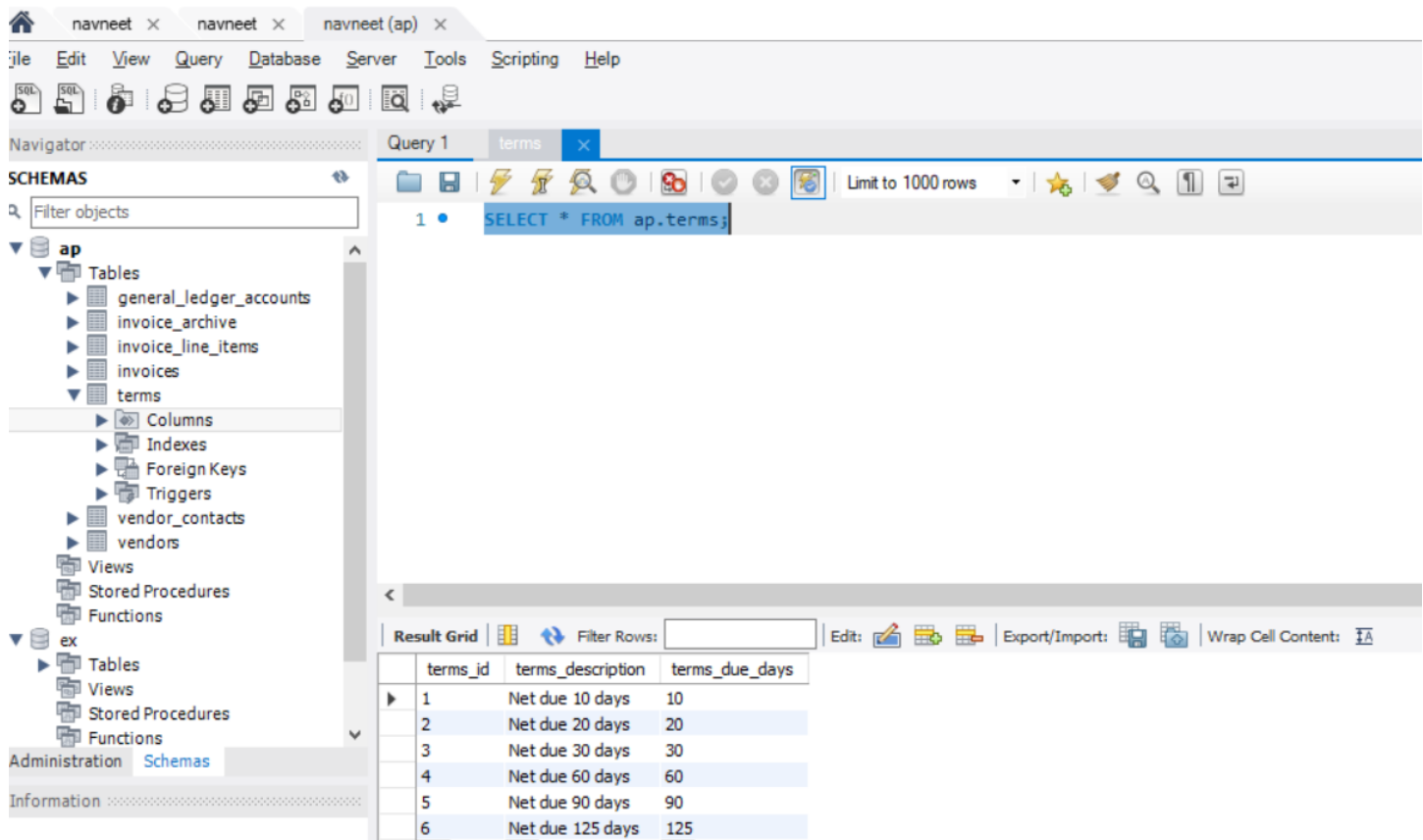
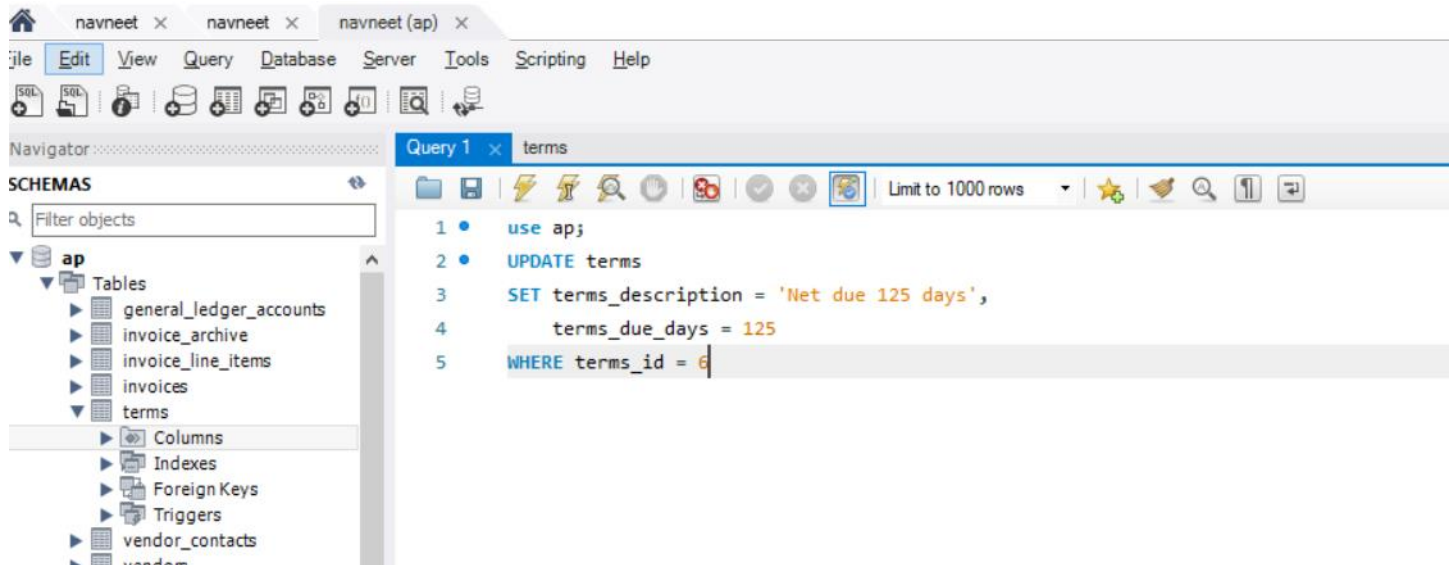
ANSWER:

UPDATE terms

SET terms\_description = 'Net due 125 days',

terms\_due\_days = 125

WHERE terms\_id = 6



3. Write a DELETE statement that deletes the row you added to the Terms table in exercise 1.

ANSWER:

DELETE FROM terms

WHERE terms\_id = 6

The screenshot shows the SQL Developer interface with the 'navneet (ap)' database selected. The 'Navigator' pane on the left shows the 'terms' table under the 'ap' schema. The 'Query' pane on the right shows the following SQL statement:

```
1 • use ap;  
2 • DELETE FROM terms  
3 • WHERE terms_id = 6
```

Below the query, the 'Result Grid' shows the following data:

terms_id	terms_description	terms_due_days
1	Net due 10 days	10
2	Net due 20 days	20
3	Net due 30 days	30
4	Net due 60 days	60
5	Net due 90 days	90
NULL	NULL	NULL

4. Write an INSERT statement that adds this row to the Invoices table:

invoice_id:	The next automatically generated ID
vendor_id:	32
invoice_number:	AX-014-027
invoice_date:	8/1/2014
invoice_total:	\$434.58
payment_total:	\$0.00
credit_total:	\$0.00
terms_id:	2
invoice_due_date:	8/31/2014
payment_date:	null

Write this statement without using a column list.

**ANSWER:**

```
INSERT INTO invoices
```

```
VALUES (DEFAULT, 32, 'AX-014-027', '2014-08-01', 434.58, 0, 0,
```

```
2, '2014-08-31', NULL)
```

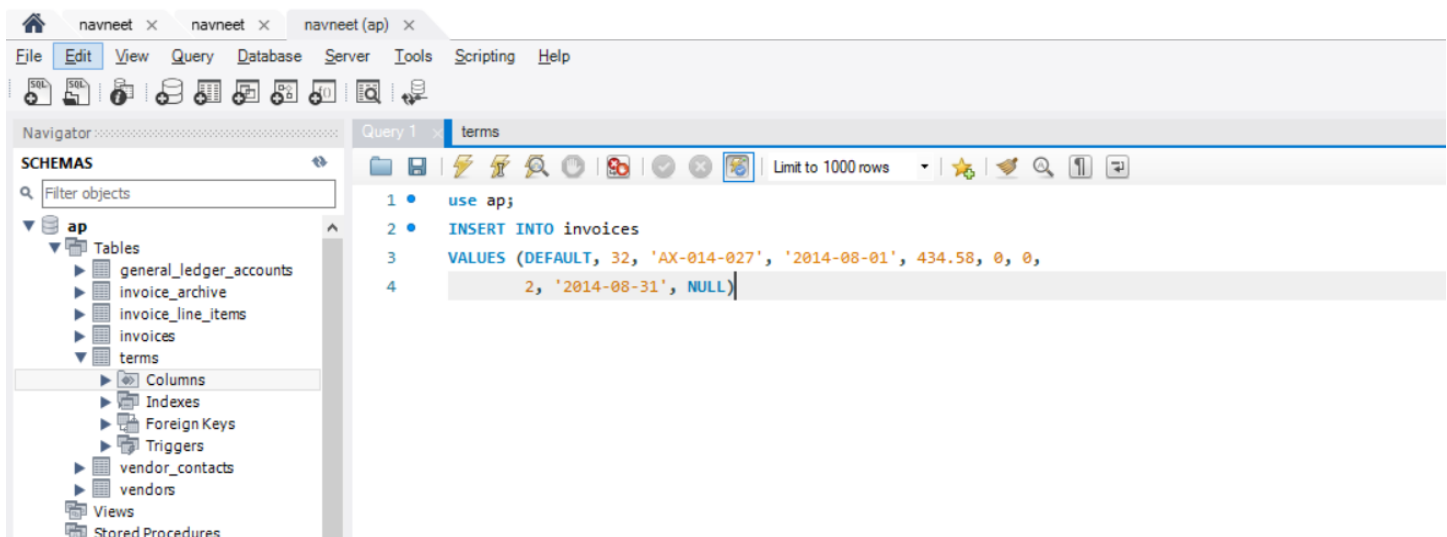


Table: terms

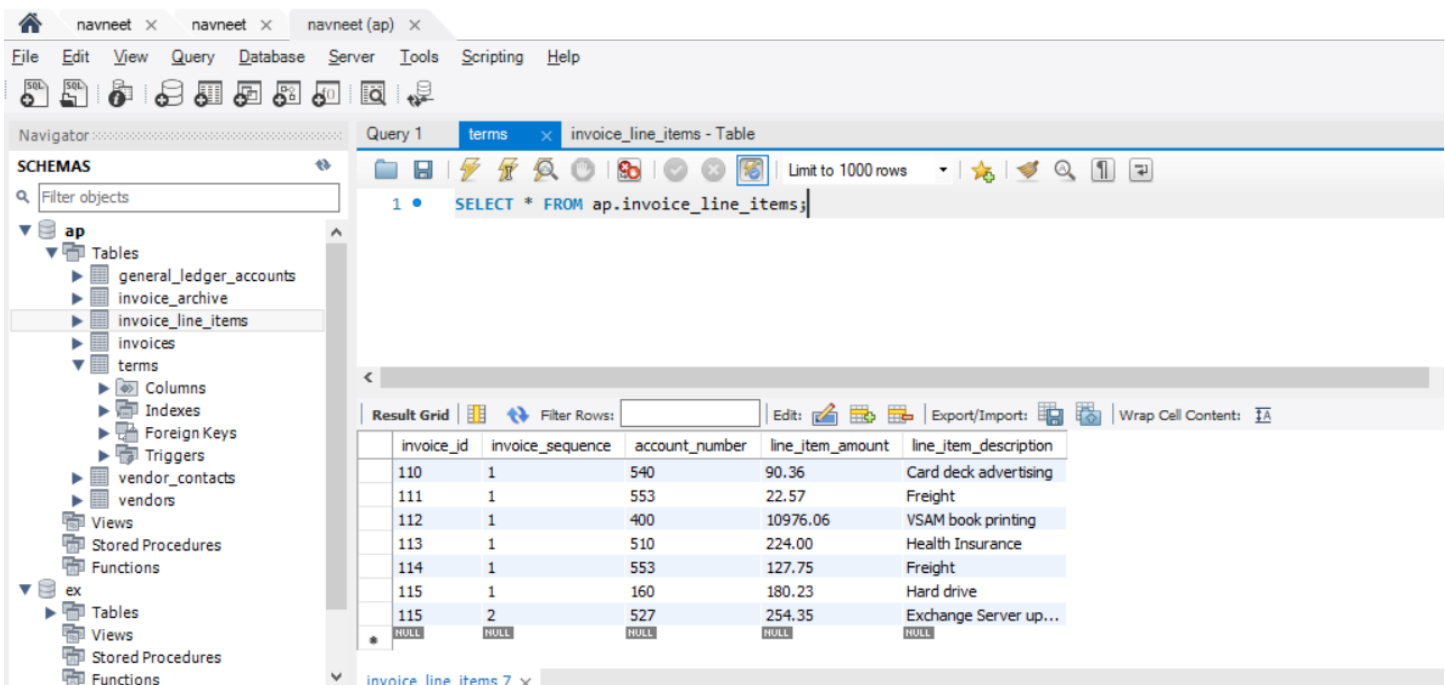
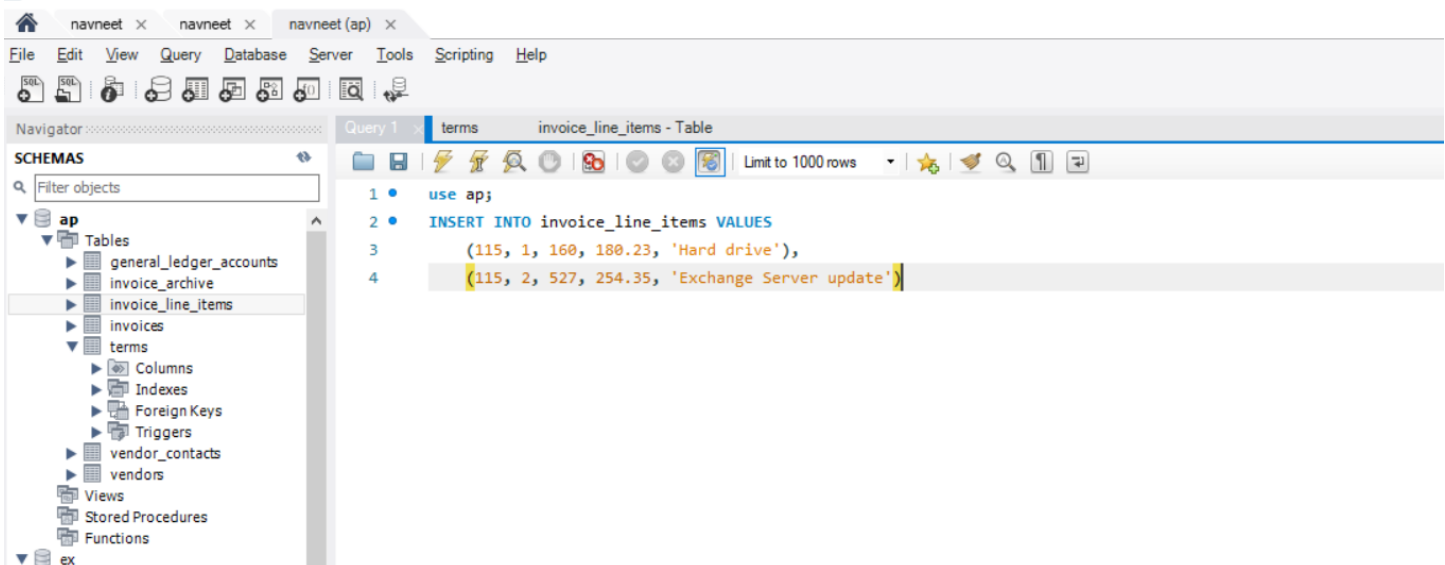
invoice_id	vendor_id	invoice_number	invoice_date	invoice_total	payment_total	credit_total	terms_id	invoice_due_date	payment_date
110	80	134116	2014-07-28	90.36	0.00	0.00	2	2014-08-17	NULL
111	123	263253257	2014-07-30	22.57	22.57	0.00	3	2014-08-29	2014-09-03
112	110	0-2436	2014-07-31	10976.06	0.00	0.00	3	2014-08-30	NULL
113	37	547480102	2014-08-01	224.00	0.00	0.00	3	2014-08-31	NULL
114	123	963253249	2014-08-02	127.75	127.75	0.00	3	2014-09-01	2014-09-04
115	32	AX-014-027	2014-08-01	434.58	0.00	0.00	2	2014-08-31	NULL
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

5. Write an INSERT statement that adds these rows to the Invoice\_Line\_Items table:

invoice_sequence:	1	2
account_number:	160	527
line_item_amount:	\$180.23	\$254.35
line_item_description:	Hard drive	Exchange Server update

Set the invoice\_id column of these two rows to the invoice ID that was generated by MySQL for the invoice you added in exercise 4.

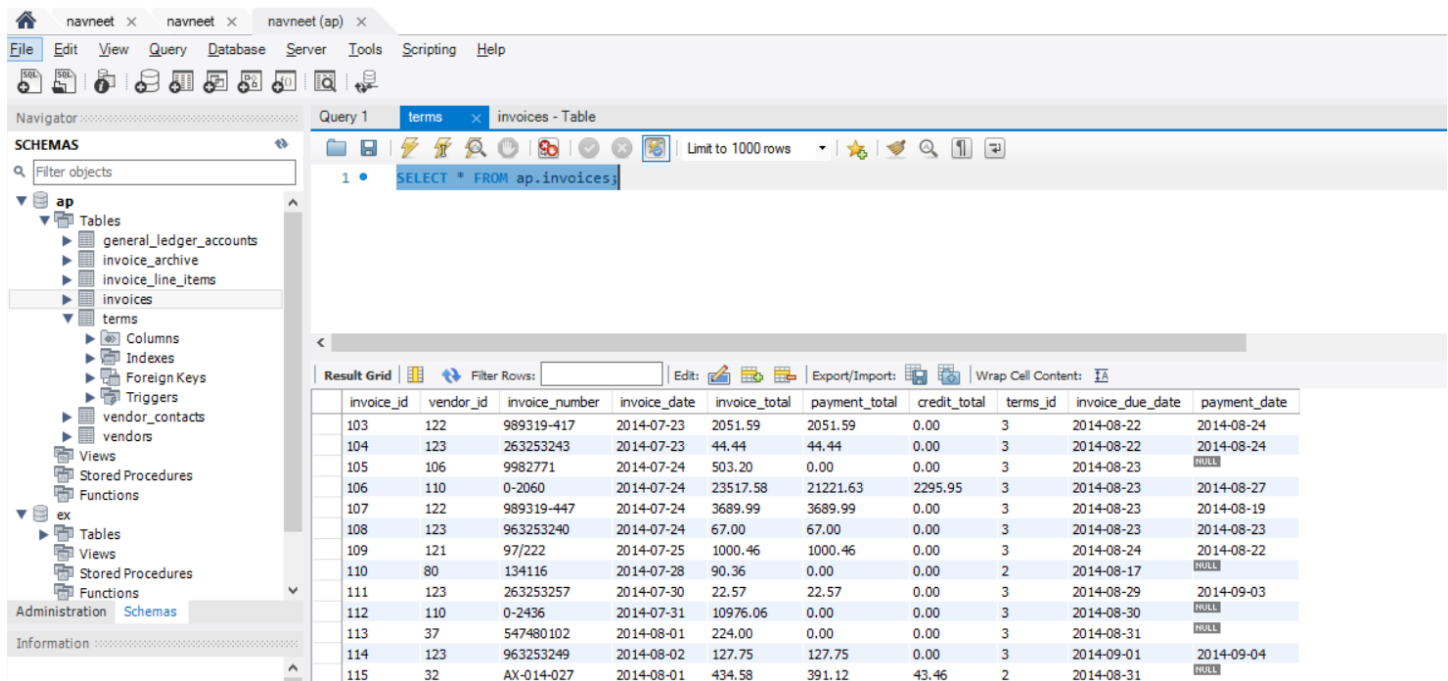
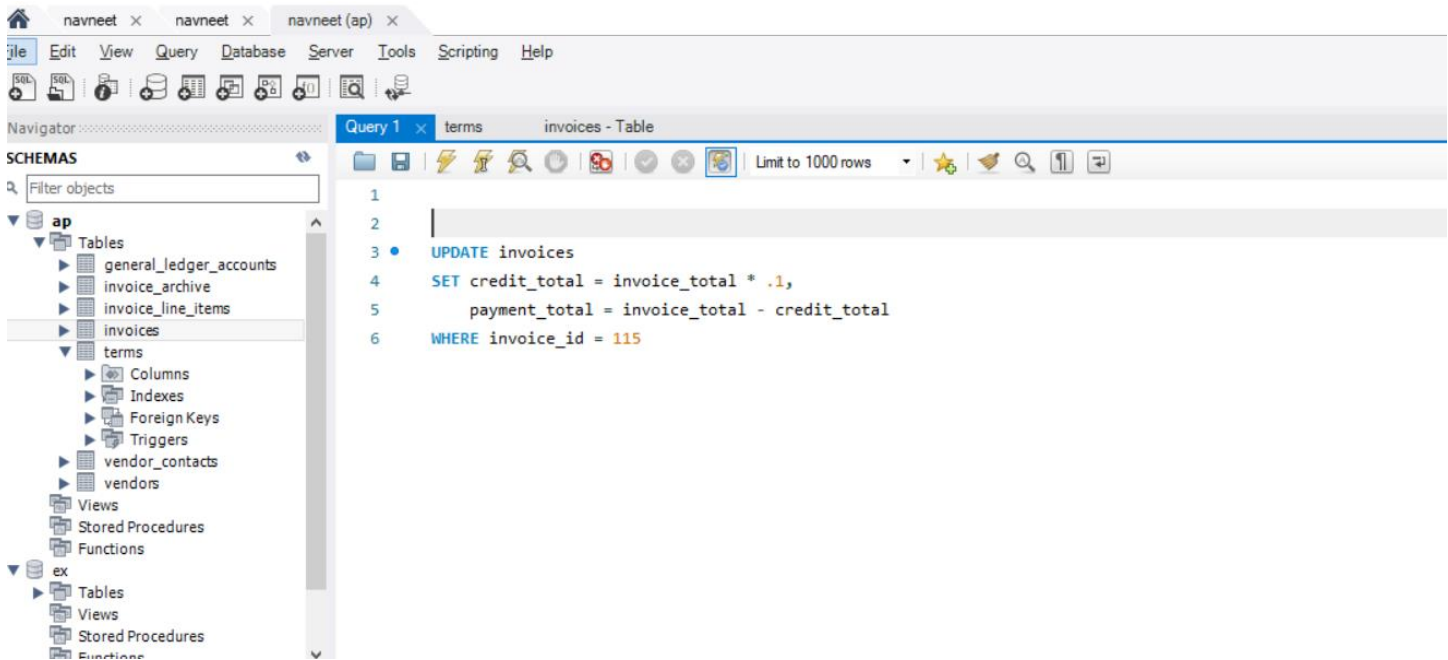
**ANSWER:**



- Write an UPDATE statement that modifies the invoice you added in exercise 4. This statement should change the credit\_total column so it's 10% of the invoice\_total column, and it should change the payment\_total column so the sum of the payment\_total and credit\_total columns are equal to the invoice\_total column.

**ANSWER:**





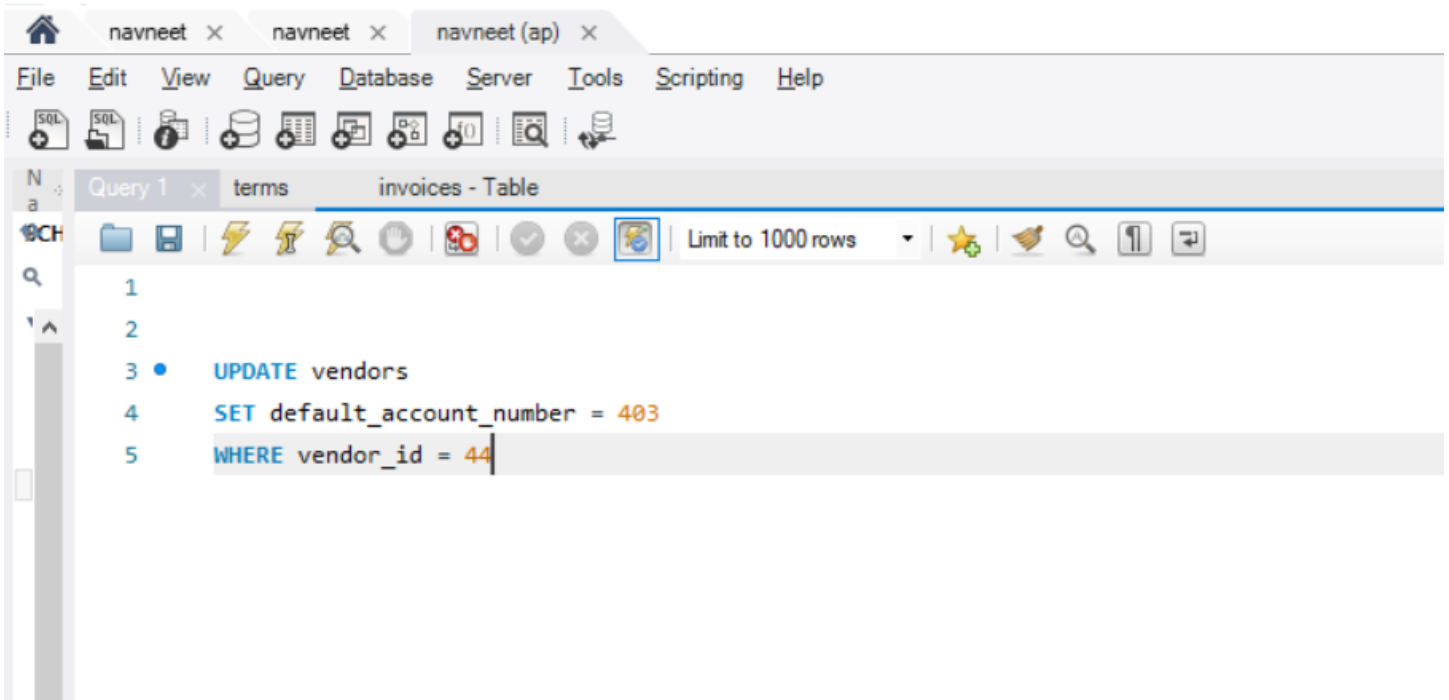
7. Write an UPDATE statement that modifies the Vendors table. Change the default\_account\_number column to 403 for the vendor with an ID of 44.

ANSWER:

UPDATE vendors

SET default\_account\_number = 403

WHERE vendor\_id = 44



vendor_id	vendor_name	vendor_address1	vendor_address2	vendor_city	vendor_state	vendor_zip_code	vendor_phone	vendor_contact_last_name	vendor_contact_first_name	default_terms_id	default_s
39	Custom Printing Company	PO Box 7028	HALL	St Louis	MO	63177	(301) 555-1494	Myles	Harley	3	540
40	Nat Assoc of College Stores	500 East Lorain Street	HALL	Oberlin	OH	44074	HALL	Bernard	Lucy	3	572
41	Shields Design	415 E Olive Ave	HALL	Fresno	CA	93728	(559) 555-8060	Kerry	Rowan	2	403
42	Opamp Technical Books	1033 N Sycamore Ave.	HALL	Los Angeles	CA	90038	(213) 555-4322	Paris	Gideon	3	572
43	Capital Resource Credit	PO Box 39046	HALL	Minneapolis	MN	55439	(612) 555-0057	Maxwell	Jayda	3	589
44	Courier Companies, Inc.	PO Box 3317	HALL	Boston	MA	02206	(508) 555-6351	Antavius	Troy	4	403
45	Naylor Publications Inc	PO Box 40513	HALL	Jacksonville	FL	32231	(800) 555-6041	Gerald	Kristofer	3	572

8. Write an UPDATE statement that modifies the Invoices table. Change the terms\_id column to 2 for each invoice that's for a vendor with a default\_terms\_id of 2.

**ANSWER:**

UPDATE invoices

SET terms\_id = 2

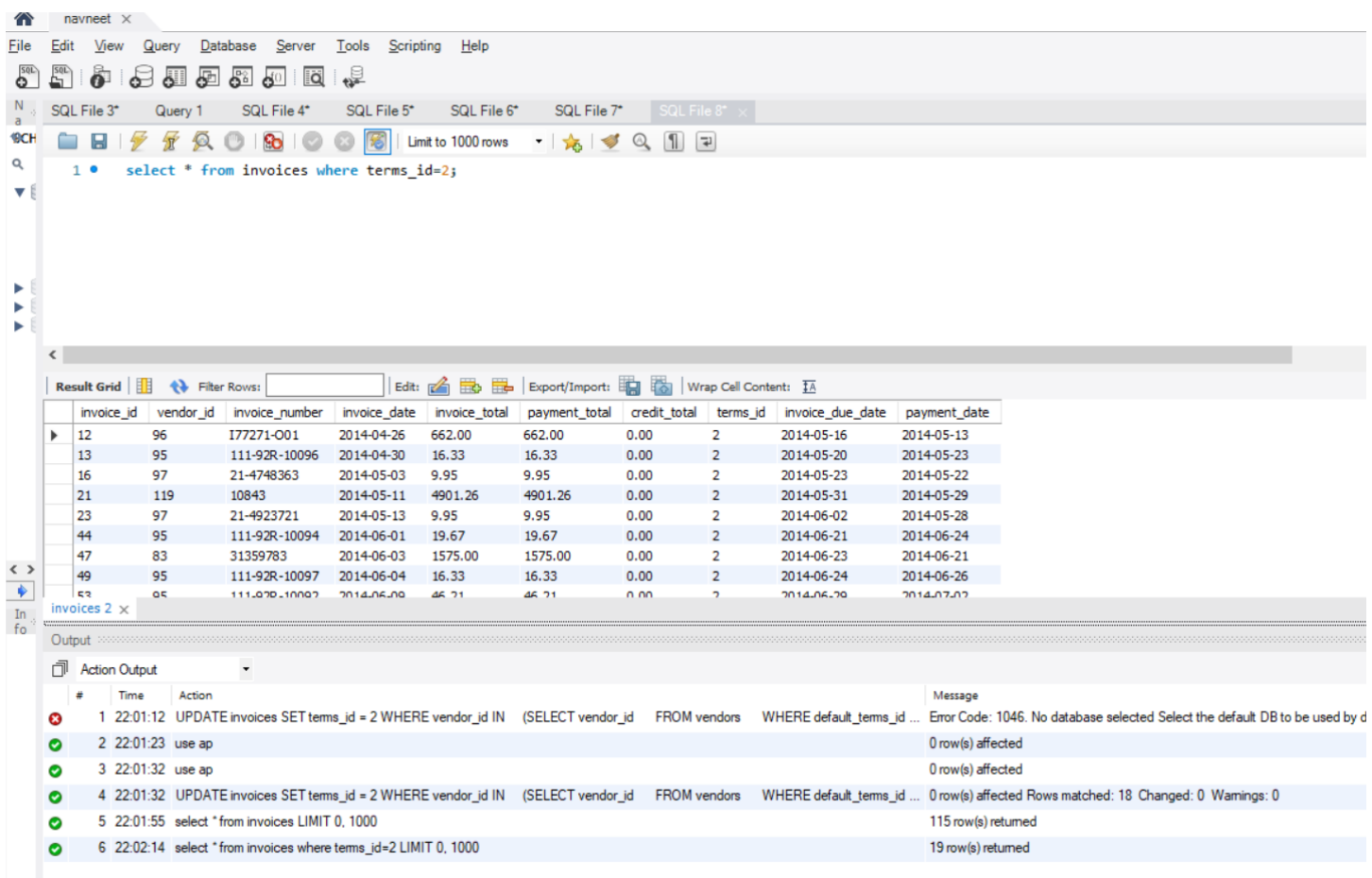
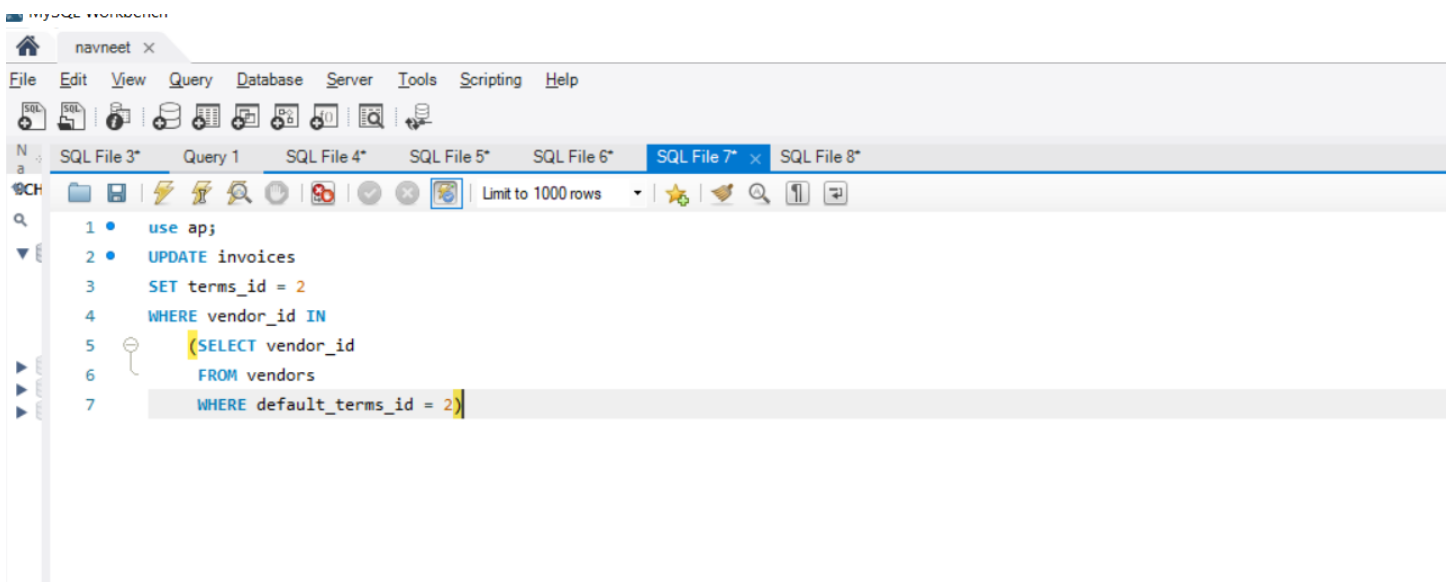
WHERE vendor\_id IN

(SELECT vendor\_id

FROM vendors

WHERE default\_terms\_id = 2)





- Write a DELETE statement that deletes the row that you added to the Invoices table in exercise 4. When you execute this statement, it will produce an error since the invoice has related rows in the Invoice\_Line\_Items table. To fix that, precede the DELETE statement with another DELETE statement that deletes the line items for this invoice. (Remember that to code two or more statements in a script, you must end each statement with a semicolon.)

navneet x

File Edit View Query Database Server Tools Scripting Help

SQL File 3\* Query 1 SQL File 4\* SQL File 5\* SQL File 6\* SQL File 7\* SQL File 8\*

Limit to 1000 rows

```
1
2  /*Foreign Key Constraint*/
3  • DELETE FROM invoices
4    WHERE invoice_id = 115;
5
6
7  /*Remove Foreign key Constraint Here*/
8  • DELETE FROM invoice_line_items
9    WHERE invoice_id = 115;
10
11 • select * from invoices ;
```

Output

#	Time	Action	Message	Duration / Fetch
✓ 3	22:01:32	use ap	0 row(s) affected	0.000 sec
✓ 4	22:01:32	UPDATE invoices SET terms_id = 2 WHERE vendor_id IN (SELECT vendor_id FROM vendors WHERE default_terms_j...	0 row(s) affected Rows matched: 18 Changed: 0 Warnings: 0	0.000 sec
✓ 5	22:01:55	select * from invoices LIMIT 0, 1000	115 row(s) returned	0.000 sec / 0.000
✓ 6	22:02:14	select * from invoices where terms_id=2 LIMIT 0, 1000	19 row(s) returned	0.000 sec / 0.000
✓ 7	22:06:03	DELETE FROM invoices WHERE invoice_id = 116	0 row(s) affected	0.000 sec
✓ 8	22:07:15	select * from invoices LIMIT 0, 1000	115 row(s) returned	0.000 sec / 0.000
✗ 9	22:07:53	DELETE FROM invoices WHERE invoice_id = 115	Error Code: 1451. Cannot delete or update a parent row: a foreign key constraint fails ('ap', 'invoice_line_items', CONSTRAINT 'in...	0.110 sec
✓ 10	22:08:24	DELETE FROM invoice_line_items WHERE invoice_id = 115	2 row(s) affected	0.125 sec
✓ 11	22:08:30	DELETE FROM invoices WHERE invoice_id = 115	1 row(s) affected	0.140 sec