

PART I

Question 1

The screenshot shows the Oracle APEX SQL Workshop interface. The URL in the browser is `https://apex.oracle.com/pls/apex/r/apex/sql-workshop/sqlcommandprocessor?session=305545621109`. The interface includes a top navigation bar with 'APEX', 'App Builder', 'SQL Workshop', 'Team Development', and 'Gallery'. A search bar and user profile 'Sunday Oyebiyi lowsonms' are also present. The 'SQL Commands' section shows a query in the editor:

```
1 SELECT a.au_fname, a.au_lname, a.au_id
2 FROM   authors a
3 WHERE  UPPER(a.city) = 'ANN ARBOR'
4 ORDER BY a.au_lname;
```

The 'Results' tab is active, displaying a table with the following data:

AU_FNAME	AU_LNAME	AU_ID
Innes	del Castillo	712-45-1867

1 rows returned in 0.00 seconds. A 'Download' link is available.

Question 2

The screenshot shows the Oracle APEX SQL Workshop interface. The URL in the browser is `https://apex.oracle.com/pls/apex/r/apex/sql-workshop/sqlcommandprocessor?session=305545621109`. The interface includes a top navigation bar with 'APEX', 'App Builder', 'SQL Workshop', 'Team Development', and 'Gallery'. A search bar and user profile 'Sunday Oyebiyi lowsonms' are also present. The 'SQL Commands' section shows a query in the editor:

```
1 SELECT t.title
2 FROM   titles t
3 WHERE  UPPER(t.title) LIKE '%NEW%';
```

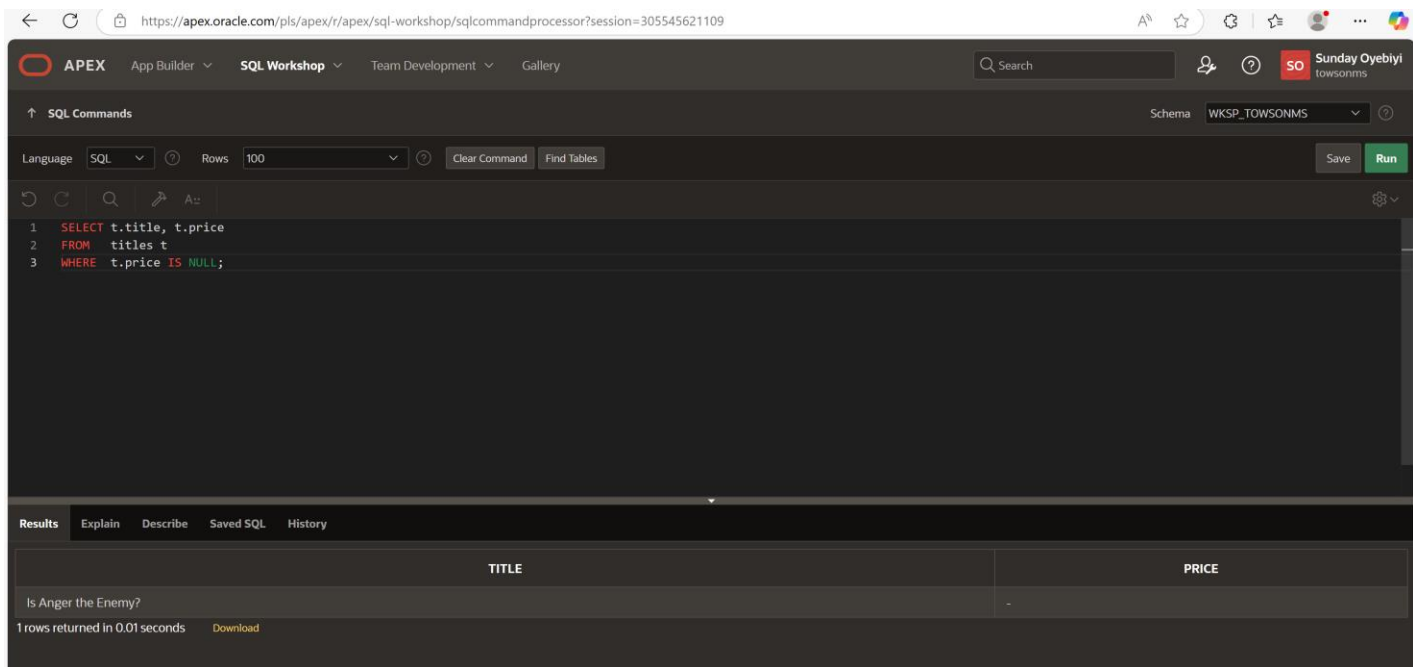
The 'Results' tab is active, displaying a table with the following data:

TITLE
Emotional Security: A New Algorithm

1 rows returned in 0.03 seconds. A 'Download' link is available.

oyebiyisunday@gmail.com towsonms en Copyright © 1999, 2024, Oracle and/or its affiliates.

Question 3



The screenshot shows the Oracle APEX SQL Workshop interface. The top navigation bar includes 'APEX', 'App Builder', 'SQL Workshop', 'Team Development', and 'Gallery'. A search bar and user profile 'Sunday Oyebiyi' are on the right. The 'SQL Commands' section is active, showing a query in the editor:

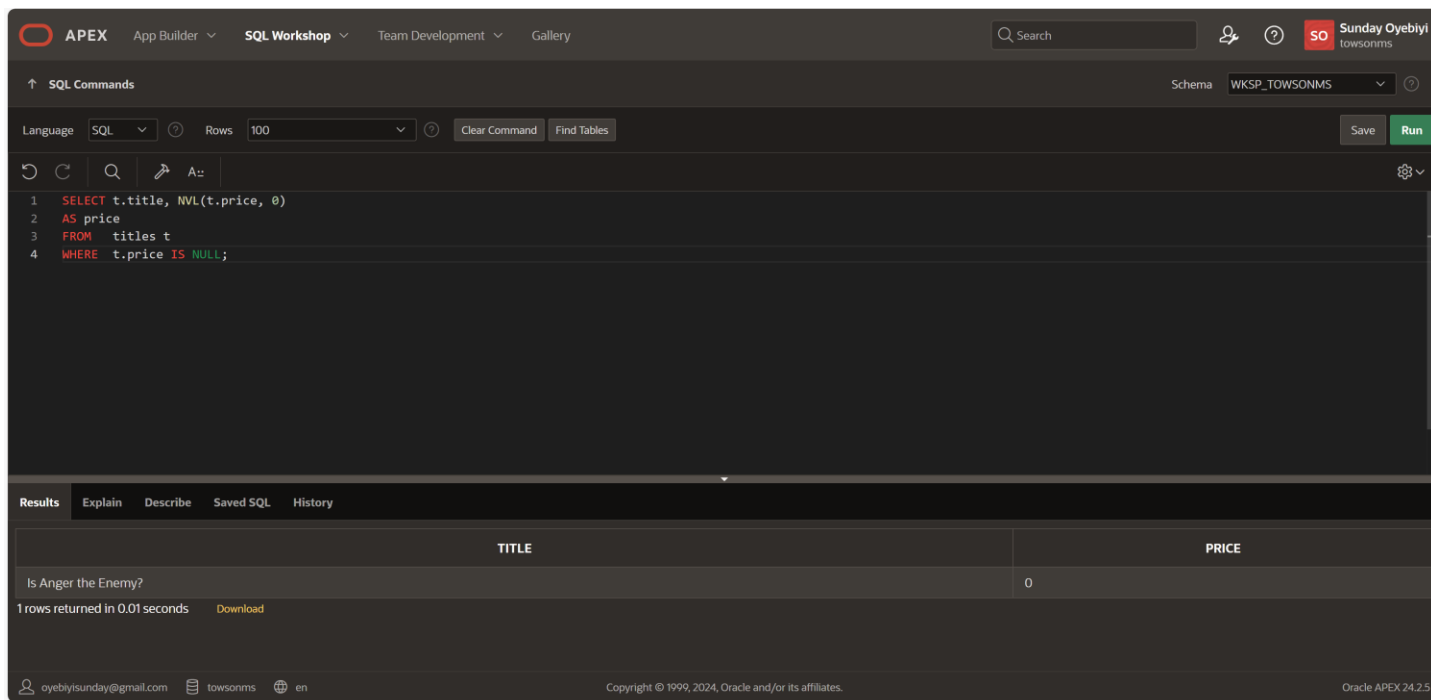
```
1 SELECT t.title, t.price
2 FROM titles t
3 WHERE t.price IS NULL;
```

The 'Results' tab is selected, displaying a table with two columns: 'TITLE' and 'PRICE'. The table contains one row with the title 'Is Anger the Enemy?' and a null price.

TITLE	PRICE
Is Anger the Enemy?	-

Below the table, it states '1 rows returned in 0.01 seconds' with a 'Download' link.

Question 4



The screenshot shows the Oracle APEX SQL Workshop interface. The top navigation bar includes 'APEX', 'App Builder', 'SQL Workshop', 'Team Development', and 'Gallery'. A search bar and user profile 'Sunday Oyebiyi' are on the right. The 'SQL Commands' section is active, showing a query in the editor:

```
1 SELECT t.title, NVL(t.price, 0)
2 AS price
3 FROM titles t
4 WHERE t.price IS NULL;
```

The 'Results' tab is selected, displaying a table with two columns: 'TITLE' and 'PRICE'. The table contains one row with the title 'Is Anger the Enemy?' and a price of 0.

TITLE	PRICE
Is Anger the Enemy?	0

Below the table, it states '1 rows returned in 0.01 seconds' with a 'Download' link.

The footer of the interface shows the user 'oyebiisunday@gmail.com', the schema 'towsonms', the language 'en', the copyright 'Copyright © 1999, 2024, Oracle and/or its affiliates.', and the version 'Oracle APEX 24.2.5'.

Question 5

← ↻ 🔒 https://apex.oracle.com/pls/apex/r/apex/sql-workshop/sqlcommandprocessor?session=305545621109

APEX App Builder ▾ **SQL Workshop** ▾ Team Development ▾ Gallery 🔍 Search 👤 ? **SO** Sunday Oyebiyi towsonms

↑ **SQL Commands** Schema WKSP_TOWSONMS

Language **SQL** Rows 100 Clear Command Find Tables Save Run

↶ ↷ 🔍 📌 A:: ⚙️

```
1 SELECT t.title, t.price, t.price * 1.25
2 AS projected_price
3 FROM titles t;
```

Results Explain Describe Saved SQL History

TITLE	PRICE	PROJECTED_PRICE
Secrets of Silicon Valley	20	25
The Busy Executives Database Guide	19.99	24.9875
Emotional Security: A New Algorithm	7.99	9.9875
Prolonged Data Deprivation: Four Case Studies	19.99	24.9875
Cooking with Computers: Surreptitious Balance Sheets	11.95	14.9375
Silicon Valley Gastronomic Treats	19.99	24.9875
Sushi, Anyone?	14.99	18.7375
Fifty Years in Buckingham Palace Kitchens	11.95	14.9375
But Is It User Friendly?	22.95	28.6875

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Question 6

APEX App Builder ▾ **SQL Workshop** ▾ Team Development ▾ Gallery 🔍 Search 👤 ? **SO** Sunday Oyebiyi towsonms

↑ **SQL Commands** Schema WKSP_TOWSONMS

Language **SQL** Rows 100 Clear Command Find Tables Save Run

↶ ↷ 🔍 📌 A:: ⚙️

```
1 SELECT 'First name = ' || a.au_fname || ' Last Name = ' || a.au_lname || ' Initials = ' || SUBSTR(a.au_fname,1,1) || SUBSTR(a.au_lname,1,1)
2 AS author_info
3 FROM authors a;
```

Results Explain Describe Saved SQL History

AUTHOR_INFO
First name = Abraham Last Name = Bennet Initials = AB
First name = Marjorie Last Name = Green Initials = MG
First name = Cheryl Last Name = Carson Initials = CC
First name = Albert Last Name = Ringer Initials = AR
First name = Anne Last Name = Ringer-Shasho Initials = AR
First name = Michel Last Name = DeFrance Initials = MD
First name = Sylvia Last Name = Panteley Initials = SP

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PART II

Question 7

[illegible]

Question 8

APEXApp BuilderSQL WorkshopTeam DevelopmentGallery

Search

SO Sunday Oyebytownsonms

↑ SQL CommandsSchemaWKSP_TOWSONMS

LanguageSQLRows100Clear CommandFind TablesSaveRun

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1SELECT t.type,

2COUNT(*) AS book_count

3FROM titles t

4GROUP BY t.type;

ResultsExplainDescribeSaved SQLHistory

TYPE	BOOK_COUNT
psychology	5
trad_cook	3
popular_comp	2
business	4
mod_cook	2

5 rows returned in 0.01 secondsDownload

Question 9

The screenshot shows the APEX SQL Workshop interface. The top navigation bar includes 'APEX', 'App Builder', 'SQL Workshop', 'Team Development', and 'Gallery'. A search bar and user profile 'Sunday Oye' are on the right. The 'SQL Commands' tab is active, showing a query: `SELECT COUNT(*) AS count_books FROM titles t WHERE t.price BETWEEN 15 AND 20;`. The 'Results' tab shows a single row with the column 'COUNT_BOOKS' and the value '5'. The status bar indicates '1 rows returned in 0.00 seconds'.

COUNT_BOOKS
5

Question 10

The screenshot shows the APEX SQL Workshop interface. The top navigation bar includes 'APEX', 'App Builder', 'SQL Workshop', 'Team Development', and 'Gallery'. A search bar and user profile 'Sunday Oye' are on the right. The 'SQL Commands' tab is active, showing a query: `SELECT a.au_fname, a.au_lname FROM authors a JOIN titleauthor ta ON a.au_id = ta.au_id WHERE UPPER(ta.title_id) = 'BU1111';`. The 'Results' tab shows a table with two columns: 'AU_FNAME' and 'AU_LNAME'. The data rows are: Stearns, MacFeather and Michael, OLeary. The status bar indicates '2 rows returned in 0.04 seconds'.

AU_FNAME	AU_LNAME
Stearns	MacFeather
Michael	OLeary

Question 11

The screenshot displays the Oracle APEX SQL Workshop interface. The top navigation bar includes 'APEX', 'App Builder', 'SQL Workshop', 'Team Development', and 'Gallery'. A search bar and user profile 'Sunday Oyebiyi' are on the right. The 'SQL Commands' section shows a query in the 'SQL' language, with 'Rows' set to 100. The query is:

```
1 SELECT t.title, p.pub_name, t.price
2 FROM   titles t
3 JOIN   publishers p ON t.pub_id = p.pub_id
4 ORDER BY t.title;
```

The 'Results' tab is active, showing a table with three columns: 'TITLE', 'PUB_NAME', and 'PRICE'. The table contains 10 rows of data. The bottom status bar shows the user 'oyebiyisunday@gmail.com', the schema 'towsonms', and the Oracle APEX version '24.2.5'.

TITLE	PUB_NAME	PRICE
But Is It User Friendly?	Algodata Infosystems	22.95
Computer Phobic and Non-Phobic Individuals: Behavior Variations	Binnet Hardley	21.59
Cooking with Computers: Surreptitious Balance Sheets	Algodata Infosystems	11.95
Emotional Security: A New Algorithm	New Age Books	7.99
Fifty Years in Buckingham Palace Kitchens	Binnet Hardley	11.95
Is Anger the Enemy?	New Age Books	-
Life Without Fear	New Age Books	7
Onions, Leeks, and Garlic: Cooking Secrets of the Mediterranean	Binnet Hardley	20.95
Prolonged Data Deprivation: Four Case Studies	New Age Books	19.99

Question 12

APEX

App Builder

SQL Workshop

Team Development

Gallery

Search

SO

Sunday Oyebiyi

towsonms

SQL Commands

SchemaWKSP_TOWSONMS

LanguageSQL

Rows100

Clear Command

Find Tables

Save

Run

A-Z

1SELECT t.title, t.price

2FROM titles t

3WHERE t.price < (SELECT AVG(x.price) FROM titles x)

4ORDER BY t.title;

Results

Explain

Describe

Saved SQL

History

TITLE	PRICE
Cooking with Computers: Surreptitious Balance Sheets	11.95
Emotional Security: A New Algorithm	7.99
Fifty Years in Buckingham Palace Kitchens	11.95
Life Without Fear	7
Sushi, Anyone?	14.99
The Gourmet Microwave	2.99
You Can Combat Computer Stress!	2.99

PART III

Question 13

SQLQuery1.sql - aitdb3.towson.edu.db12 (s12 (78)) - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

db12 Execute

Object Explorer

Connect

aitdb3.towson.edu (SQL Server 13.0.6455.2 - s12)

- Databases
 - System Databases
 - Database Snapshots
 - db1
 - db10
 - db11
 - db12
 - Database Diagrams
 - Tables
 - System Tables
 - FileTables
 - External Tables
 - dbo.department
 - dbo.emp_proj
 - dbo.employee
 - dbo.projects
 - Views
 - External Resources
 - Synonyms
 - Programmability
 - Service Broker
 - Storage
 - Security
 - db13
 - db14
 - db15
 - db16
 - db17
 - db18
 - db19
 - db2
 - db20
 - db21
 - db22
 - db23
 - db24
 - db25
 - db26

SQLQuery1.sql - aitdb3.towson.edu.db12 (s12 (78))

```
SELECT AVG(salary) AS avg_salary_dc
FROM employee
WHERE UPPER(state) = 'DC';
```

100 %

Results Messages

	avg_salary_dc
1	52500.000000

Question 14

SQLQuery1.sql - aitdb3.towson.edu.db12 (s12 (78)) - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

db12 Execute

Object Explorer

Connect aitdb3.towson.edu (SQL Server 13.0.6455.2 - s12)

- Databases
 - System Databases
 - Database Snapshots
 - db1
 - db10
 - db11
 - db12
 - Database Diagrams
 - Tables
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 - Service Broker
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 - db13
 - db14
 - db15
 - db16
 - db17
 - db18
 - db19
 - db2
 - db20
 - db21
 - db22
 - db23
 - db24
 - db25
 - db26
 - db27
 - db28

SQLQuery1.sql - aitdb3.towson.edu.db12 (s12 (78))

```
SELECT UPPER(state) AS state, SUM(salary) AS total_salary
FROM employee
GROUP BY UPPER(state);
```

100 %

Results Messages

	state	total_salary
1	DC	105000.00
2	MD	220000.00
3	NY	163000.00

Question 15

SQLQuery1.sql - aitdb3.towson.edu.db12 (s12 (78))* - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

db12 Execute

Object Explorer

Connect aitdb3.towson.edu (SQL Server 13.0.6455.2 - s12)

Databases

- System Databases
- Database Snapshots
- db1
- db10
- db11
- db12
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 - Synonyms
 - Programmability
 - Service Broker
 - Storage
 - Security
- db13
- db14
- db15
- db16
- db17
- db18
- db19
- db2
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- db24
- db25
- db26
- db27
- db28

SQLQuery1.sql - ait...edu.db12 (s12 (78))*

```
SELECT d.department_name, COUNT(e.employee_id) AS employee_count
FROM employee e
JOIN department d ON e.department_id = d.department_id
GROUP BY d.department_name;
```

100 %

Results Messages

	department_name	employee_count
1	Hardware	3
2	Installations	2
3	Software	3

Question 16

SQLQuery1.sql - aitdb3.towson.edu.db12 (s12 (78))* - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

db12 Execute

Object Explorer

Connect

aitdb3.towson.edu (SQL Server 13.0.6455.2 - s12)

- Databases
 - System Databases
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 - db11
 - db12
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 - Synonyms
 - Programmability
 - Service Broker
 - Storage
 - Security
- db13
- db14
- db15
- db16
- db17
- db18
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- db21
- db22
- db23
- db24
- db25
- db26
- db27
- db28
- db29
- db3
- db30
- db31
- db32

SQLQuery1.sql - aitdb3.towson.edu.db12 (s12 (78))*

```
SELECT e.last_name, d.department_name
FROM employee e
JOIN department d ON e.department_id = d.department_id;
```

100 %

Results Messages

	last_name	department_name
1	Oyebiyi	Software
2	Shasho	Software
3	Smith	Hardware
4	Johnson	Hardware
5	Brown	Installations
6	Davis	Installations
7	Wilson	Hardware
8	Miller	Software

Question 17

SQLQuery1.sql - aitdb3.towson.edu.db12 (s12 (78))* - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

db12 Execute

Object Explorer

Connect

aitdb3.towson.edu (SQL Server 13.0.6455.2 - s12)

- Databases
 - System Databases
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 - db1
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 - db11
 - db12
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 - Tables
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 - dbo.department
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 - Views
 - External Resources
 - Synonyms
 - Programmability
 - Service Broker
 - Storage
 - Security
 - db13
 - db14
 - db15
 - db16
 - db17
 - db18
 - db19
 - db2
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 - db21
 - db22
 - db23
 - db24
 - db25
 - db26
 - db27

SQLQuery1.sql - aitdb3.towson.edu.db12 (s12 (78))*

```
SELECT * FROM employee_MD;
```

100 %

Results Messages

	employee_id	first_name	last_name	state	department_id
1	12233	Sunday	Oyebiyi	MD	11
2	57788	Mike	Brown	MD	33
3	81122	Emma	Miller	MD	11

Question 18A

SQLQuery1.sql - aitdb3.towson.edu.db12 (s12 (78))* - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

db12 Execute

Object Explorer

Connect

aitdb3.towson.edu (SQL Server 13.0.6455.2 - s12)

- Databases
 - System Databases
 - Database Snapshots
 - db1
 - db10
 - db11
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 - db13
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 - db18
 - db19
 - db2
 - db20
 - db21
 - db22
 - db23
 - db24
 - db25
 - db26
 - db27

SQLQuery1.sql - ait...edu.db12 (s12 (78))*

```
select * from employee_co_phone
```

100 %

Results Messages

	phone_id	employee_id	phone_num
1	1	12233	410-111-1111
2	2	23344	410-111-2222
3	3	35566	301-222-1111

Question 18 B

SQLQuery1.sql - aitdb3.towson.edu.db12 (s12 (78))* - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

db12 Execute

Object Explorer

Connect

aitdb3.towson.edu (SQL Server 13.0.6455.2 - s12)

- Databases
 - System Databases
 - Database Snapshots
 - db1
 - db10
 - db11
 - db12
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 - Tables
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 - dbo.department
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 - Views
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 - Service Broker
 - Storage
 - Security
 - db13
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 - db23
 - db24
 - db25
 - db26
 - db27
 - db28
 - db29
 - db3
 - db30
 - db31

SQLQuery1.sql - ait...edu.db12 (s12 (78))*

```
SELECT e.first_name + ' ' + e.last_name AS employee_name, e.salary, e.state,  
ISNULL(p.phone_num, 'N/A') AS phone_num  
FROM employee e  
LEFT JOIN employee_co_phone p ON e.employee_id = p.employee_id;
```

100 %

Results Messages

	employee_name	salary	state	phone_num
1	Sunday Oyebiyi	75000.00	MD	410-111-1111
2	Harry Shasho	85000.00	NY	410-111-2222
3	John Smith	60000.00	DC	301-222-1111
4	Lisa Johnson	45000.00	DC	N/A
5	Mike Brown	55000.00	MD	N/A
6	Sarah Davis	48000.00	NY	N/A
7	Tom Wilson	30000.00	NY	N/A
8	Emma Miller	90000.00	MD	N/A

PART IV

Question 19

[illegible]

Question 20

← ↻ 🔒 https://apex.oracle.com/pls/apex/r/apex/sql-workshop/sqlcommandprocessor?session=305545621109

APEX App Builder ▾ **SQL Workshop** ▾ Team Development ▾ Gallery 🔍 Search 👤 ? **SO** Sunday Oyebiyi towsonms

↑ **SQL Commands** Schema WKSP_TOWSONMS 🔍

Language **SQL** 🔍 Rows 100 🔍 Clear Command Find Tables Save Run

```
1 SELECT a.au_fname AS author_first_name, a.au_lname AS author_last_name, t.title AS book_title, p.pub_name AS publisher_name
2 FROM authors a
3 JOIN titleauthor ta ON a.au_id = ta.au_id
4 JOIN titles t ON ta.title_id = t.title_id
5 JOIN publishers p ON t.pub_id = p.pub_id
6 WHERE UPPER(t.type) = 'BUSINESS';
```

Results Explain Describe Saved SQL History

AUTHOR_FIRST_NAME	AUTHOR_LAST_NAME	BOOK_TITLE	PUBLISHER_NAME
Abraham	Bennet	The Busy Executives Database Guide	Algodata Infosystems
Marjorie	Green	The Busy Executives Database Guide	Algodata Infosystems
Marjorie	Green	You Can Combat Computer Stress!	New Age Books
Dick	Straight	Straight Talk About Computers	Algodata Infosystems
Stearns	MacFeather	Cooking with Computers: Surreptitious Balance Sheets	Algodata Infosystems
Michael	OLeary	Cooking with Computers: Surreptitious Balance Sheets	Algodata Infosystems

6 rows returned in 0.02 seconds Download

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Question 21

APEX App Builder ▾ **SQL Workshop** ▾ Team Development ▾ Gallery 🔍 Search 👤 ? **SO** Sunday Oyebiyi towsonms

↑ **SQL Commands** Schema WKSP_TOWSONMS 🔍

Language **SQL** 🔍 Rows 100 🔍 Clear Command Find Tables Save Run

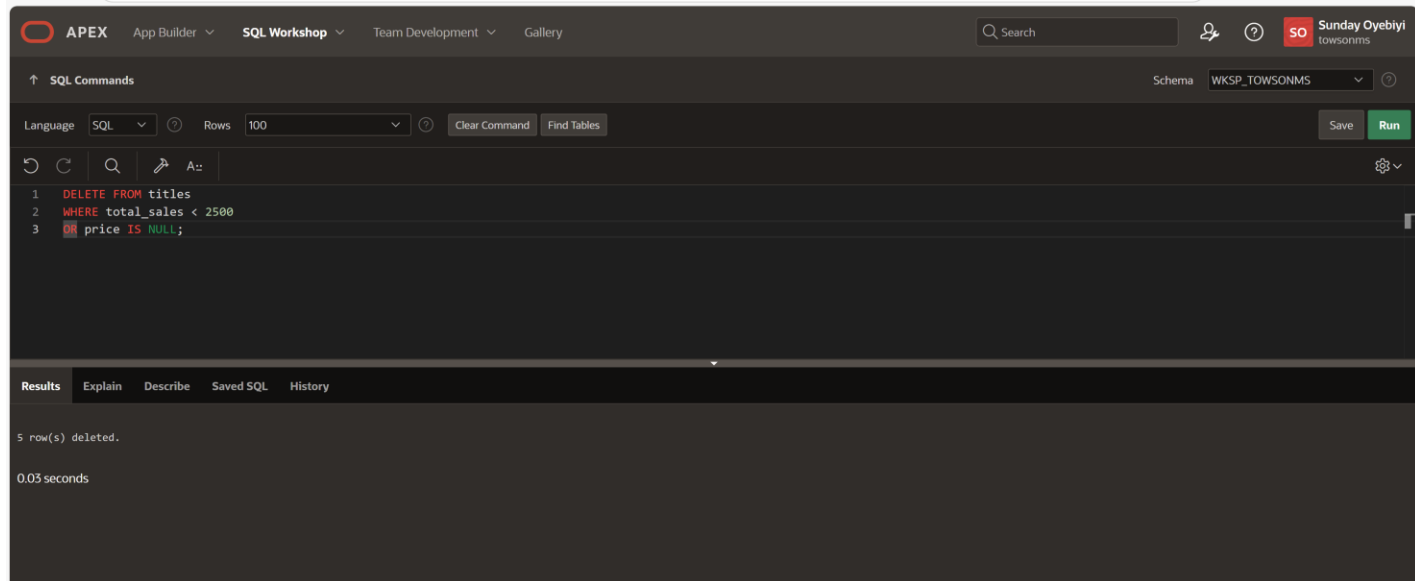
```
1 UPDATE authors
2 SET au_lname = 'Ringer-Shasho'
3 WHERE UPPER(au_fname) = 'ANNE'
4 AND UPPER(au_lname) = 'RINGER';
```

Results Explain Describe Saved SQL History

1 row(s) updated.

0.03 seconds

Question 22



Question 23

