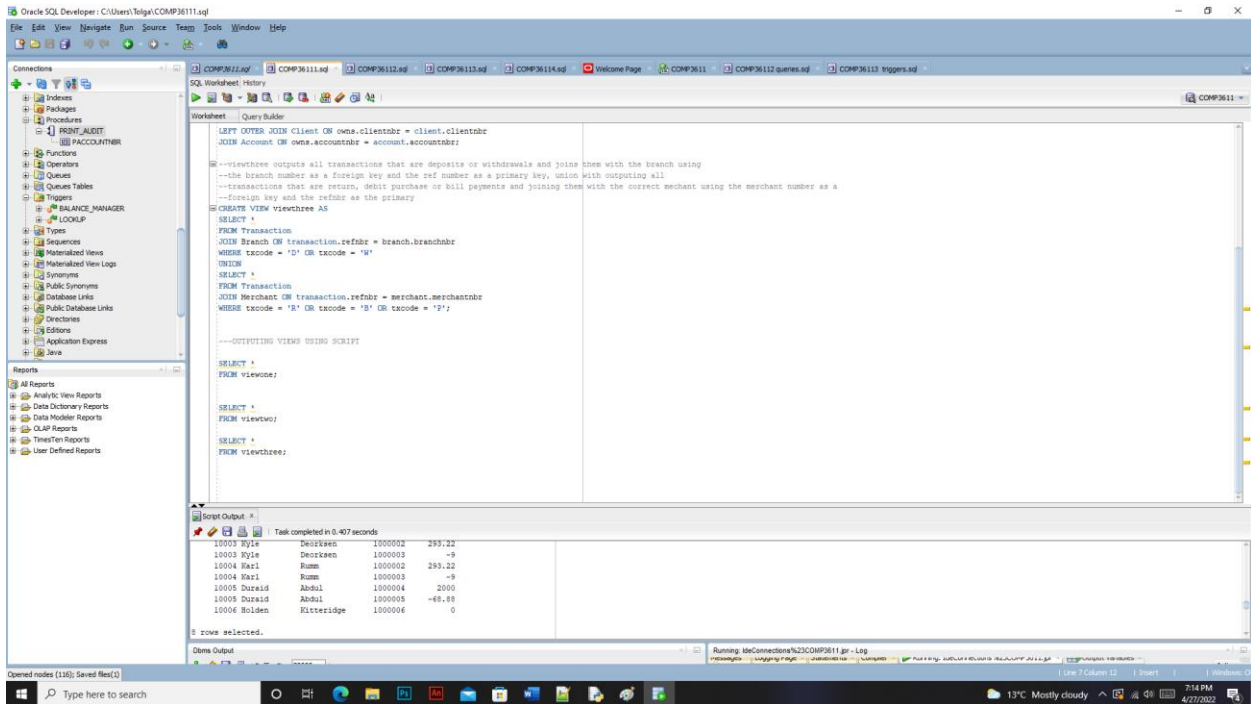


ASSIGNMENT #3

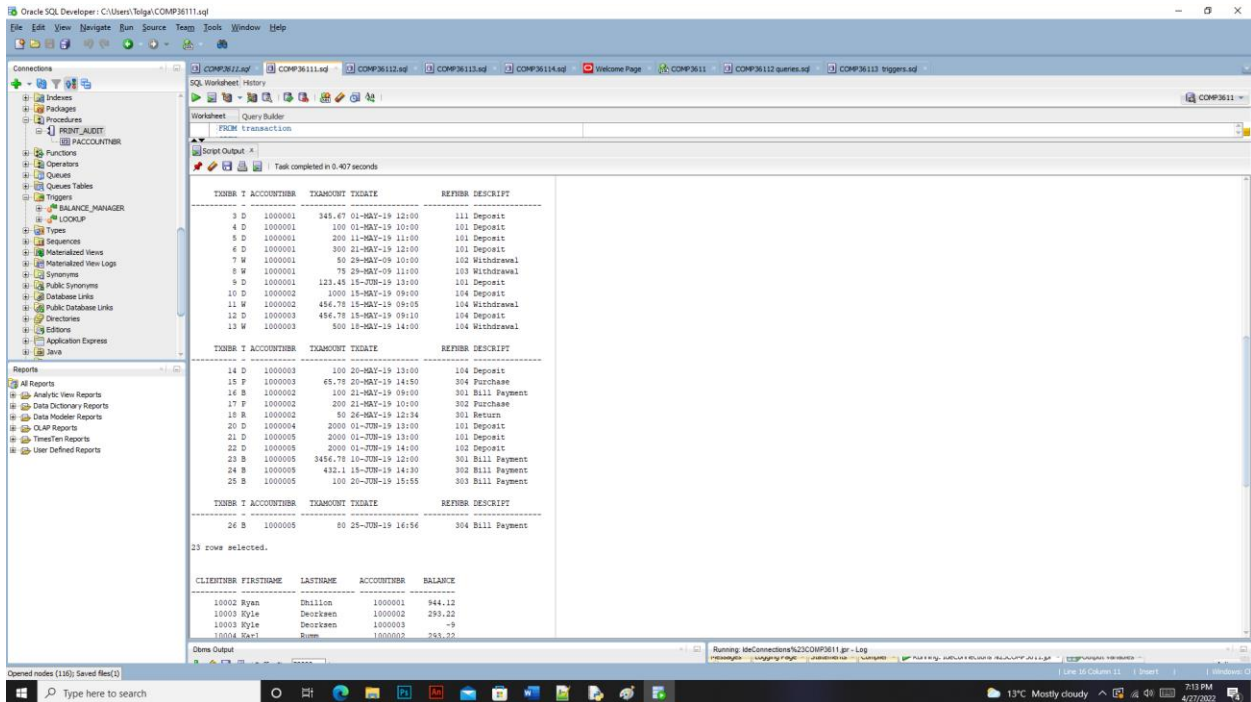
COMP 3611

By Tolga Olcay t00666715

Attached in my zip file u can find the PL/SQL scripts used for creating and inserting into tables, views, queries, triggers, and a procedure.. Here are some screenshots to showcase the outputs of these scripts.



As you can see, at the end of my sql file use to create my views, I have three queries that are used to output my three views.



Oracle SQL Developer: C:\Users\Tolga\COMP36111.sql

Connections: COMP36111.sql, COMP36112.sql, COMP36113.sql, COMP36114.sql, COMP36115.sql, COMP36116.sql, COMP36117.sql, COMP36118.sql, COMP36119.sql, COMP36120.sql, COMP36121.sql, COMP36122.sql, COMP36123.sql, COMP36124.sql, COMP36125.sql, COMP36126.sql, COMP36127.sql, COMP36128.sql, COMP36129.sql, COMP36130.sql, COMP36131.sql, COMP36132.sql, COMP36133.sql, COMP36134.sql, COMP36135.sql, COMP36136.sql, COMP36137.sql, COMP36138.sql, COMP36139.sql, COMP36140.sql, COMP36141.sql, COMP36142.sql, COMP36143.sql, COMP36144.sql, COMP36145.sql, COMP36146.sql, COMP36147.sql, COMP36148.sql, COMP36149.sql, COMP36150.sql, COMP36151.sql, COMP36152.sql, COMP36153.sql, COMP36154.sql, COMP36155.sql, COMP36156.sql, COMP36157.sql, COMP36158.sql, COMP36159.sql, COMP36160.sql, COMP36161.sql, COMP36162.sql, COMP36163.sql, COMP36164.sql, COMP36165.sql, COMP36166.sql, COMP36167.sql, COMP36168.sql, COMP36169.sql, COMP36170.sql, COMP36171.sql, COMP36172.sql, COMP36173.sql, COMP36174.sql, COMP36175.sql, COMP36176.sql, COMP36177.sql, COMP36178.sql, COMP36179.sql, COMP36180.sql, COMP36181.sql, COMP36182.sql, COMP36183.sql, COMP36184.sql, COMP36185.sql, COMP36186.sql, COMP36187.sql, COMP36188.sql, COMP36189.sql, COMP36190.sql, COMP36191.sql, COMP36192.sql, COMP36193.sql, COMP36194.sql, COMP36195.sql, COMP36196.sql, COMP36197.sql, COMP36198.sql, COMP36199.sql, COMP36200.sql

SQL Worksheet: History

Worksheet: Query Builder

FROM Transaction

Script Output: Task completed in 0.407 seconds

TXNR	T	ACCOUNTNR	TXAMOUNT	TXDATE	REFNR	BRANCHNR	BRANCHNAME
15	F	1000003	65.76	20-MAY-19 14:50	304		Purchase
16	B	1000002	200	21-MAY-19 09:00	301		Bill Payment
17	F	1000002	200	21-MAY-19 10:00	302		Purchase
18	R	1000002	50	24-MAY-19 12:34	301		Return
20	D	1000004	2000	01-JUN-19 13:00	101		Deposit
21	D	1000005	2000	01-JUN-19 13:00	101		Deposit
22	D	1000005	2000	01-JUN-19 14:00	102		Deposit
23	B	1000005	3456.78	10-JUN-19 12:00	301		Bill Payment
24	B	1000005	432.1	15-JUN-19 14:30	302		Bill Payment
25	B	1000005	100	20-JUN-19 15:55	303		Bill Payment
26	B	1000005	80	25-JUN-19 16:56	304		Bill Payment

23 rows selected.

CLIENTNR	FIRSTNAME	LASTNAME	ACCOUNTNR	BALANCE
10002	Ellen	Deereken	1000001	844.12
10003	Kyle	Deereken	1000002	293.22
10003	Kyle	Deereken	1000003	-9
10004	Karl	Rumm	1000002	293.22
10004	Karl	Rumm	1000003	-9
10005	Duraid	Abdul	1000004	2000
10005	Duraid	Abdul	1000005	-48.88
10006	Holden	Kitteridge	1000006	0

8 rows selected.

TXNR	T	ACCOUNTNR	TXAMOUNT	TXDATE	REFNR	BRANCHNR	BRANCHNAME
4	D	1000001	100	01-MAY-19 10:00	101	101	Bikini Bottom
5	D	1000001	200	11-MAY-19 11:00	101	101	Bikini Bottom
6	D	1000001	300	21-MAY-19 12:00	101	101	Bikini Bottom
7	M	1000001	50	29-MAY-09 10:00	102	102	Krusty Krab
8	M	1000001	75	29-MAY-09 11:00	103	103	Jellyfish Fields
9	D	1000001	123.45	15-JUN-19 13:00	101	101	Bikini Bottom
10	D	1000002	1000	15-MAY-19 09:00	104	104	Goa Lagoon
11	M	1000002	456.78	15-MAY-19 09:00	104	104	Goa Lagoon
12	D	1000003	456.78	15-MAY-19 09:00	104	104	Goa Lagoon
13	M	1000003	500	15-MAY-19 14:00	104	104	Goa Lagoon
14	D	1000003	100	20-MAY-19 13:00	104	104	Goa Lagoon
15	F	1000003	65.76	20-MAY-19 14:50	304		Purchase
16	B	1000002	200	21-MAY-19 09:00	301		Bill Payment
17	F	1000002	200	21-MAY-19 10:00	302		Purchase
18	R	1000002	50	24-MAY-19 12:34	301		Return
20	D	1000004	2000	01-JUN-19 13:00	101	101	Bikini Bottom
21	D	1000005	2000	01-JUN-19 13:00	101	101	Bikini Bottom
22	D	1000005	2000	01-JUN-19 14:00	102	102	Krusty Krab
23	B	1000005	3456.78	10-JUN-19 12:00	301		Bill Payment
24	B	1000005	432.1	15-JUN-19 14:30	302		Bill Payment
25	B	1000005	100	20-JUN-19 15:55	303		Bill Payment
26	B	1000005	80	25-JUN-19 16:56	304		Bill Payment

22 rows selected.

Opened nodes (116): Saved Rest(1)

Running: UseConnections%23COMP36111.gr - Log

Line 16 Column 11 | Sheet | Window: 0

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Oracle SQL Developer: C:\Users\Tolga\COMP36111.sql

Connections: COMP36111.sql, COMP36112.sql, COMP36113.sql, COMP36114.sql, COMP36115.sql, COMP36116.sql, COMP36117.sql, COMP36118.sql, COMP36119.sql, COMP36120.sql, COMP36121.sql, COMP36122.sql, COMP36123.sql, COMP36124.sql, COMP36125.sql, COMP36126.sql, COMP36127.sql, COMP36128.sql, COMP36129.sql, COMP36130.sql, COMP36131.sql, COMP36132.sql, COMP36133.sql, COMP36134.sql, COMP36135.sql, COMP36136.sql, COMP36137.sql, COMP36138.sql, COMP36139.sql, COMP36140.sql, COMP36141.sql, COMP36142.sql, COMP36143.sql, COMP36144.sql, COMP36145.sql, COMP36146.sql, COMP36147.sql, COMP36148.sql, COMP36149.sql, COMP36150.sql, COMP36151.sql, COMP36152.sql, COMP36153.sql, COMP36154.sql, COMP36155.sql, COMP36156.sql, COMP36157.sql, COMP36158.sql, COMP36159.sql, COMP36160.sql, COMP36161.sql, COMP36162.sql, COMP36163.sql, COMP36164.sql, COMP36165.sql, COMP36166.sql, COMP36167.sql, COMP36168.sql, COMP36169.sql, COMP36170.sql, COMP36171.sql, COMP36172.sql, COMP36173.sql, COMP36174.sql, COMP36175.sql, COMP36176.sql, COMP36177.sql, COMP36178.sql, COMP36179.sql, COMP36180.sql, COMP36181.sql, COMP36182.sql, COMP36183.sql, COMP36184.sql, COMP36185.sql, COMP36186.sql, COMP36187.sql, COMP36188.sql, COMP36189.sql, COMP36190.sql, COMP36191.sql, COMP36192.sql, COMP36193.sql, COMP36194.sql, COMP36195.sql, COMP36196.sql, COMP36197.sql, COMP36198.sql, COMP36199.sql, COMP36200.sql

SQL Worksheet: History

Worksheet: Query Builder

FROM Transaction

Script Output: Task completed in 0.407 seconds

CLIENTNR	FIRSTNAME	LASTNAME	ACCOUNTNR	BALANCE
10002	Ellen	Deereken	1000001	844.12
10003	Kyle	Deereken	1000002	293.22
10003	Kyle	Deereken	1000003	-9
10004	Karl	Rumm	1000002	293.22
10004	Karl	Rumm	1000003	-9
10005	Duraid	Abdul	1000004	2000
10005	Duraid	Abdul	1000005	-48.88
10006	Holden	Kitteridge	1000006	0

8 rows selected.

TXNR	T	ACCOUNTNR	TXAMOUNT	TXDATE	REFNR	BRANCHNR	BRANCHNAME
4	D	1000001	100	01-MAY-19 10:00	101	101	Bikini Bottom
5	D	1000001	200	11-MAY-19 11:00	101	101	Bikini Bottom
6	D	1000001	300	21-MAY-19 12:00	101	101	Bikini Bottom
7	M	1000001	50	29-MAY-09 10:00	102	102	Krusty Krab
8	M	1000001	75	29-MAY-09 11:00	103	103	Jellyfish Fields
9	D	1000001	123.45	15-JUN-19 13:00	101	101	Bikini Bottom
10	D	1000002	1000	15-MAY-19 09:00	104	104	Goa Lagoon
11	M	1000002	456.78	15-MAY-19 09:00	104	104	Goa Lagoon
12	D	1000003	456.78	15-MAY-19 09:00	104	104	Goa Lagoon
13	M	1000003	500	15-MAY-19 14:00	104	104	Goa Lagoon
14	D	1000003	100	20-MAY-19 13:00	104	104	Goa Lagoon
15	F	1000003	65.76	20-MAY-19 14:50	304		Purchase
16	B	1000002	200	21-MAY-19 09:00	301		Bill Payment
17	F	1000002	200	21-MAY-19 10:00	302		Purchase
18	R	1000002	50	24-MAY-19 12:34	301		Return
20	D	1000004	2000	01-JUN-19 13:00	101	101	Bikini Bottom
21	D	1000005	2000	01-JUN-19 13:00	101	101	Bikini Bottom
22	D	1000005	2000	01-JUN-19 14:00	102	102	Krusty Krab
23	B	1000005	3456.78	10-JUN-19 12:00	301		Bill Payment
24	B	1000005	432.1	15-JUN-19 14:30	302		Bill Payment
25	B	1000005	100	20-JUN-19 15:55	303		Bill Payment
26	B	1000005	80	25-JUN-19 16:56	304		Bill Payment

22 rows selected.

Opened nodes (116): Saved Rest(1)

Running: UseConnections%23COMP36111.gr - Log

Line 16 Column 11 | Sheet | Window: 0

13°C Mostly cloudy 7:14 PM 4/27/2022

As for my queries sql document, it outputs 5 different queries based on my views

Running: UseConnections%Z3COMP3611.pr - Log  
 message: logging flag: ...

ACCOUNTNBR	BALANCE
1000002	293.22
1000003	-9

FIRSTNAME	LASTNAME	NUMBERSOFACCOUNTS	BALANCE
Duraid	Abdul	1	-65.88
Duraid	Abdul	1	2000
Ryle	Deerksen	1	-9
Ryle	Deerksen	1	293.22
Ryan	Thillion	1	944.12
Holden	Kitteridge	1	0
Marl	Rumm	1	-9
Marl	Rumm	1	293.22

8 rows selected.

DESCRIPT	NUM	TOTALAMOUNT
Bill Payment	5	4169.88
Deposit	11	8625.9
Purchase	2	245.78
Return	1	50
Withdrawal	4	1081.78

ACCOUNTNBR	TXDATE	DESCRIPT	TXAMOUNT
1000001	28-MAY-19	13100 Withdrawal	80
1000002	15-MAY-19	09:00 Deposit	1000
1000003	15-MAY-19	09:10 Deposit	484.78
1000004	31-MAY-19	13100 Deposit	2000
1000005	31-MAY-19	13100 Deposit	2000

ACCOUNTNBR	DESCRIPT	NUM	TOTALAMOUNT
1000001	Deposit	5	1069.12
1000001	Withdrawal	2	128
1000002	Bill Payment	1	100
1000002	Deposit	1	1000
1000002	Purchase	1	200
1000002	Return	1	50
1000002	Withdrawal	1	456.78
1000003	Deposit	2	556.78
1000003	Purchase	1	65.78
1000003	Withdrawal	1	500
1000004	Deposit	1	2000

ACCOUNTNBR	DESCRIPT	NUM	TOTALAMOUNT
1000005	Bill Payment	4	4048.88
1000005	Deposit	2	4000

13 rows selected.

ACCOUNTNBR	BALANCE
1000002	293.22
1000003	-9

As you can see the balance data in the queries have been updated thanks to the balance\_manager trigger. You must truncate the transaction table and the account table and the re-insert the data into the tables in order for the balance\_manager to work.

Oracle SQL Developer: C:\Users\Tolga\COMP36112.sql

File Edit View Navigate Run Source Team Tools Window Help

Connections: COMP36112... COMP36111... COMP36112... COMP36113... COMP36114... Welcome Page COMP3611 COMP36112 queries.sql COMP36112 triggers.sql

SQL Worksheet: History

Worksheet: Query Builder

Script Output: Task completed in 1.245 seconds

```
--select DISTINCT (no repeats) account data from viewtwo, which contains account and client data.
```

DESCRIPTION	NUM	TOTALAMOUNT
Bill Payment	5	4169.88
Deposit	11	8625.9
Purchase	2	265.78
Return	1	80
Withdrawal	4	1081.78

ACCOUNTNBR	TXDATE	DESCRIPTION	TXAMOUNT
1000001	19-MAY-09 10:00	Withdrawal	50
1000002	15-MAY-19 09:00	Deposit	1000
1000003	15-MAY-19 09:10	Deposit	456.78
1000004	01-JUN-19 13:00	Deposit	2000
1000005	01-JUN-19 13:00	Deposit	2000

ACCOUNTNBR	DESCRIPTION	NUM	TOTALAMOUNT
1000001	Deposit	5	1069.12
1000001	Withdrawal	2	125
1000002	Bill Payment	1	100
1000002	Deposit	1	1000
1000002	Purchase	1	200
1000002	Return	1	80
1000002	Withdrawal	1	456.78
1000003	Deposit	2	656.78
1000003	Purchase	1	65.78
1000003	Withdrawal	1	500
1000004	Deposit	1	2000
1000005	Bill Payment	4	4068.88
1000005	Deposit	2	4000

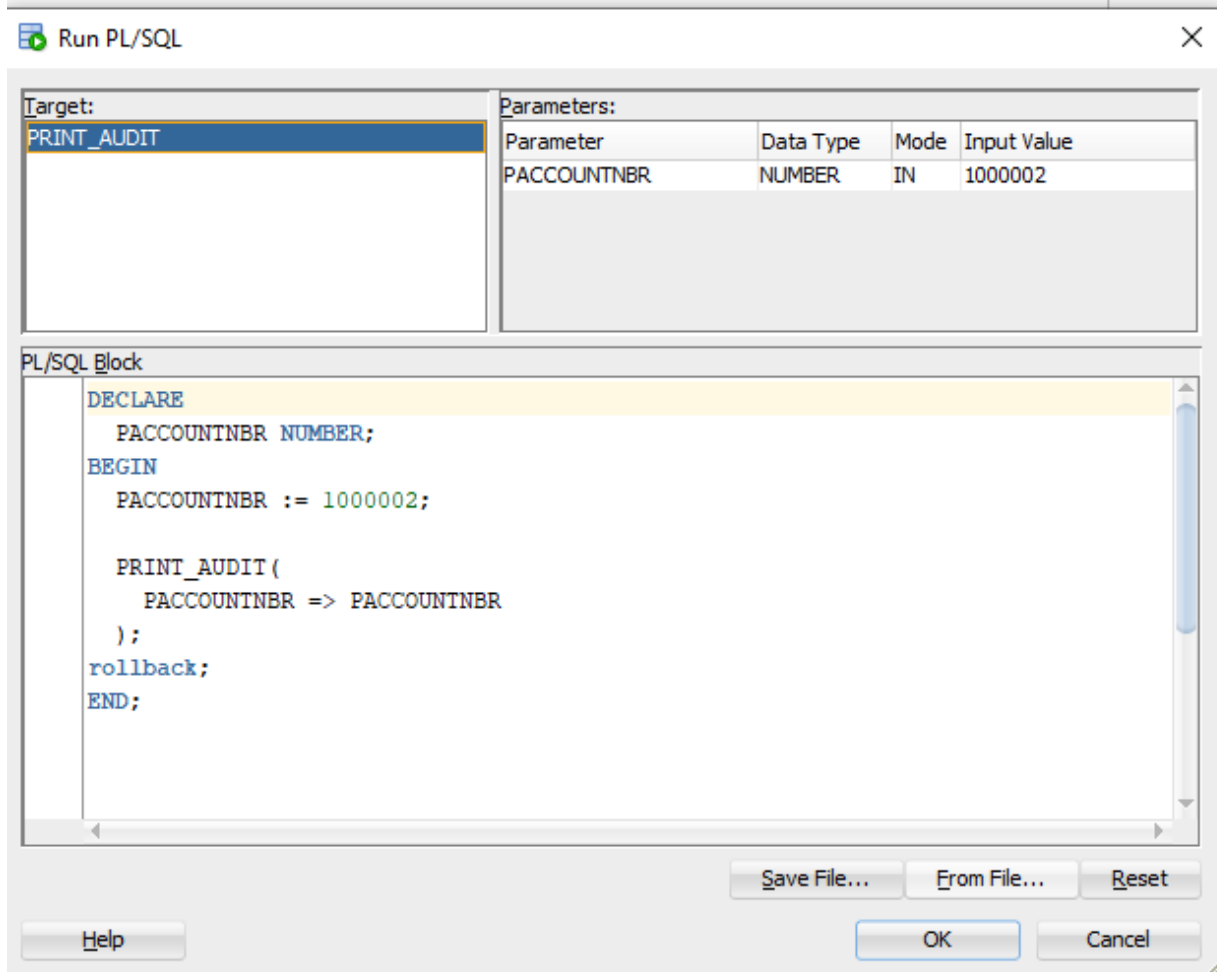
13 rows selected.

DBMS Output: Running: UseConnections%23COMP3611.gr - Log

Opened nodes (116): Saved files (2)

13°C Mostly cloudy 7:13 PM 4/21/2022

As for my procedure, you can run it by clicking the + icon under procedures and the right clicking print\_audit and clicking run, you will be prompted with a box where you can input an account number as a parameter:



As you can see I have used the number 1000002. Since 1000002 has multiple transactions, we can see the audit for each transaction.

The screenshot displays an SQL IDE interface with the following components:

- Left Panel (Connections):** A tree view showing database objects including PROCESURES, FUNCTIONS, OPERATORS, QUEUES, TRIGGERS, SEQUENCES, and VIEWS. The 'PRINT\_AUDIT' procedure is highlighted.
- Worksheet (Query Builder):** Contains the following PL/SQL code:

```
create or replace PROCEDURE print_audit (Paccountnbr account.accountnbr%TYPE)
IS
BEGIN
--loop through all transactions that have the inputted accountnbr, print data for each loop
FOR t IN (SELECT transaction.*
FROM transaction
WHERE accountnbr = Paccountnbr)
LOOP
DBMS_OUTPUT.put_line('number: ' || t.accountnbr || ' date: ' || t.txdate || ' amount: ' || t.txamount);
END LOOP;
END;
```
- Script Output:** Shows the message "Task completed in 0.37 seconds" and "Procedure PRINT\_AUDIT compiled".
- Demo Output:** Shows the execution results in a table:

number	date	amount
1000002	16-MAY-19 09:00	1000
1000002	16-MAY-19 09:05	456.78
1000002	16-MAY-19 09:00	100
1000002	16-MAY-19 10:00	200
1000002	16-MAY-19 12:34	50
- Running Log:** Shows the execution process: "Connecting to the database COMP36111.", "Process exited.", and "Disconnecting from the database COMP36111."

In the blue text you can see the output of the procedure.