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Assignment 5

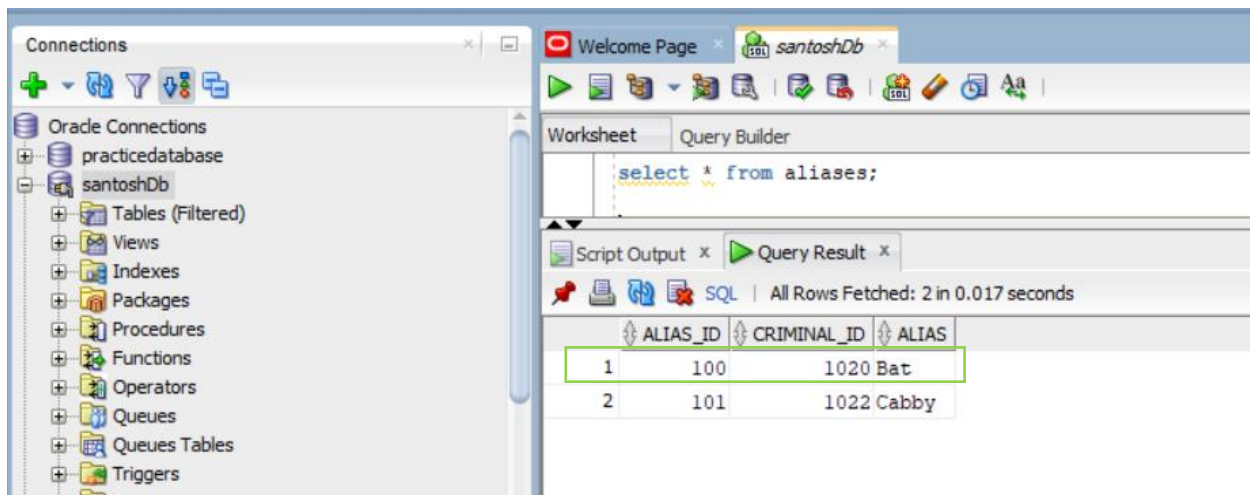
Solution :

1. Query to display all the criminal aliases beginning with letter B.

SQL query :

❖ `SELECT * FROM aliases where ALIAS LIKE 'B%';`

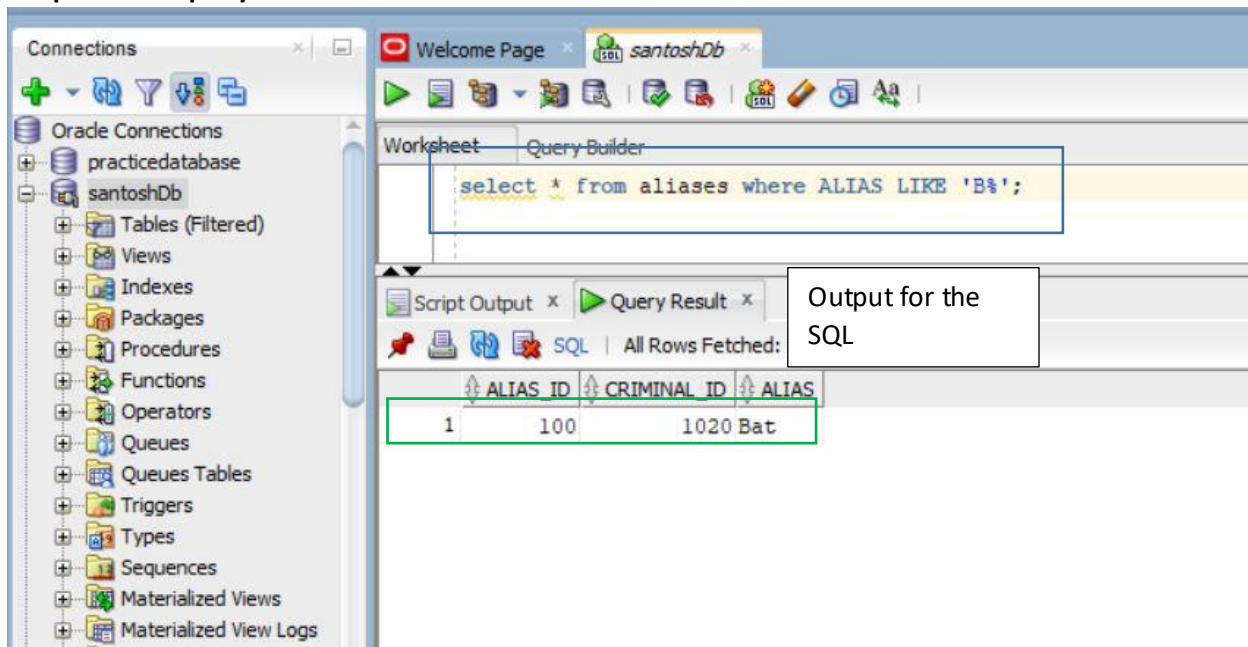
ALIASES Table



The screenshot shows the Oracle SQL Developer interface. On the left, the 'Connections' pane shows 'santoshDb' selected. The main window displays the 'Query Builder' with the query `select * from aliases;`. Below the query, the 'Query Result' pane shows the results of the query. The results are displayed in a table with three columns: ALIAS_ID, CRIMINAL_ID, and ALIAS. Two rows are shown: Row 1 with ALIAS_ID 1, CRIMINAL_ID 100, and ALIAS 1020 Bat; Row 2 with ALIAS_ID 2, CRIMINAL_ID 101, and ALIAS 1022 Cabby.

ALIAS_ID	CRIMINAL_ID	ALIAS
1	100	1020 Bat
2	101	1022 Cabby

Output of the query



2. Query to list of all crimes that occurred in November 2008

- ❖ Alter session for date is used to rearrange the date in the table.

SQL query

- ❖ `ALTER SESSION SET NLS_DATE_FORMAT = 'YY-MON-DD';`
- ❖ `SELECT crime_id as "santosh_crime_id", criminal_id, date_charged, classification from crimes where date_charged like '08-NOV%';`

Crimes table

This are the data that will be displayed by the query

CRIME_ID	CRIMINAL_ID	CLASSIFICATION	DATE_CHARGED	STATUS	HEARING_DATE	APPEAL_CUT_DATE	DATE_RECORDED
1	10085	1020 F	03-SEP-08	CA	15-SEP-08	15-DEC-08	24-MAR-14
2	10086	1021 M	20-OCT-08	CL	05-DEC-08	(null)	24-MAR-14
3	10087	1022 M	30-OCT-08	IA	05-DEC-08	15-MAR-09	24-MAR-14
4	10088	1023 O	05-NOV-08	CA	(null)	(null)	24-MAR-14
5	10089	1025 M	22-OCT-08	CA	25-NOV-08	15-FEB-09	24-MAR-14
6	10090	1026 M	22-OCT-08	CA	25-NOV-08	15-FEB-09	24-MAR-14
7	10091	1027 M	24-OCT-08	CA	28-NOV-08	15-FEB-09	24-MAR-14
8	10092	1028 M	24-OCT-08	CA	28-NOV-08	15-FEB-09	24-MAR-14
9	10093	1024 M	22-OCT-08	CA	25-NOV-08	15-FEB-09	24-MAR-14
10	10094	1029 M	26-OCT-08	CA	26-NOV-08	17-FEB-09	24-MAR-14
11	25344031	1030 M	26-OCT-08	CA	26-NOV-08	17-FEB-09	24-MAR-14
12	25344060	1030 M	18-NOV-08	CL	26-NOV-08	(null)	24-MAR-14

Output after the query

Output of the query

santosh_crime_id	CRIMINAL_ID	DATE_CHARGED	CLASSIFICATION
1	10088	1023 08-NOV-05	O
2	25344060	1030 08-NOV-18	M

3. Query to list all criminal with the status CA or IA

SQL query

- ❖ SELECT crime_id as "santosh_crime_id", criminal_id, date_charged, status from crimes where status in ('CA','IA');

Crimes table

The screenshot shows the Oracle SQL Developer interface. On the left, the 'Connections' pane lists 'practicedatabase' and 'santoshDb'. The 'Query Builder' tab is active, showing a query: `select * from crimes;`. The 'Script Output' pane shows the query result with 12 rows fetched in 0.002 seconds. The table has columns: CRIME_ID, CRIMINAL_ID, CLASSIFICATION, DATE_CHARGED, STATUS, HEARING_DATE, APPEAL_CUT_DATE, and DATE_RECORDED.

CRIME_ID	CRIMINAL_ID	CLASSIFICATION	DATE_CHARGED	STATUS	HEARING_DATE	APPEAL_CUT_DATE	DATE_RECORDED
1	10085	1020 F	03-SEP-08	CA	15-SEP-08	15-DEC-08	24-MAR-14
2	10086	1021 M	20-OCT-08	CL	05-DEC-08	(null)	24-MAR-14
3	10087	1022 M	30-OCT-08	IA	05-DEC-08	15-MAR-09	24-MAR-14
4	10088	1023 O	05-NOV-08	CA	(null)	(null)	24-MAR-14
5	10089	1025 M	22-OCT-08	CA	25-NOV-08	15-FEB-09	24-MAR-14
6	10090	1026 M	22-OCT-08	CA	25-NOV-08	15-FEB-09	24-MAR-14
7	10091	1027 M	24-OCT-08	CA	28-NOV-08	15-FEB-09	24-MAR-14
8	10092	1028 M	24-OCT-08	CA	28-NOV-08	15-FEB-09	24-MAR-14
9	10093	1024 M	22-OCT-08	CA	25-NOV-08	15-FEB-09	24-MAR-14
10	10094	1029 M	26-OCT-08	CA	26-NOV-08	17-FEB-09	24-MAR-14
11	25344031	1030 M	26-OCT-08	CA	26-NOV-08	17-FEB-09	24-MAR-14
12	25344060	1030 M	18-NOV-08	CL	26-NOV-08	(null)	24-MAR-14

Output after the query

The screenshot shows the Oracle SQL Developer interface. The 'Query Builder' tab is active, showing a query: `SELECT crime_id as "santosh_crime_id", criminal_id, date_charged, status from crimes where status in ('CA','IA');`. The 'Script Output' pane shows the query result with 10 rows fetched in 0.006 seconds. The table has columns: santosh_crime_id, CRIMINAL_ID, DATE_CHARGED, and STATUS.

santosh_crime_id	CRIMINAL_ID	DATE_CHARGED	STATUS
1	10085	1020 08-SEP-03	CA
2	10087	1022 08-OCT-30	IA
3	10088	1023 08-NOV-05	CA
4	10089	1025 08-OCT-22	CA
5	10090	1026 08-OCT-22	CA
6	10091	1027 08-OCT-24	CA
7	10092	1028 08-OCT-24	CA
8	10093	1024 08-OCT-22	CA
9	10094	1029 08-OCT-26	CA
10	25344031	1030 08-OCT-26	CA

Output of the query

4. Query to list all criminal classified as felony

SQL query

- ❖ `SELECT CRIME_ID AS "Santosh_crime_id", criminal_id, date_charged, classification from crimes where classification = 'F';`

Crimes table

The screenshot shows the Oracle SQL Developer interface. On the left, the 'Connections' pane lists 'santoshDb' under 'Oracle Connections'. The main window displays the 'Query Result' tab with the following data:

CRIME_ID	CRIMINAL_ID	CLASSIFICATION	DATE_CHARGED	STATUS	HEARING_DATE	APPEAL_CUT_DATE	DATE_RECORDED
1	10085	1020 F	08-SEP-03	CA	08-SEP-15	08-DEC-15	24-MAR-12
2	10086	1021 M	08-OCT-20	CL	08-DEC-05	(null)	24-MAR-12
3	10087	1022 M	08-OCT-30	IA	08-DEC-05	09-MAR-15	24-MAR-12
4	10088	1023 O	08-NOV-05	CA	(null)	(null)	24-MAR-12
5	10089	1025 M	08-OCT-22	CA	08-NOV-25	09-FEB-15	24-MAR-12
6	10090	1026 M	08-OCT-22	CA	08-NOV-25	09-FEB-15	24-MAR-12
7	10091	1027 M	08-OCT-24	CA	08-NOV-28	09-FEB-15	24-MAR-12
8	10092	1028 M	08-OCT-24	CA	08-NOV-28	09-FEB-15	24-MAR-12
9	10093	1024 M	08-OCT-22	CA	08-NOV-25	09-FEB-15	24-MAR-12
10	10094	1029 M	08-OCT-26	CA	08-NOV-26	09-FEB-17	24-MAR-12
11	25344031	1030 M	08-OCT-26	CA	08-NOV-26	09-FEB-17	24-MAR-12
12	25344060	1030 M	08-NOV-18	CL	08-NOV-26	(null)	24-MAR-12

Output after the query

The screenshot shows the Oracle SQL Developer interface with a query executed. The query is: `SELECT CRIME_ID AS "santosh_crime_id", criminal_id, date_charged, Classification from crimes where classification = 'F';`. The output is shown in the 'Query Result' tab:

santosh_crime_id	CRIMINAL_ID	DATE_CHARGED	CLASSIFICATION
1	10085	1020 08-SEP-03	F

Output of the query

5. Query to list all crimes with the hearing date more than 14 days

SQL query

- ❖ `SELECT CRIME_ID AS "Santosh_crime_id", criminal_id, date_charged, hearing_date from crimes where hearing_date – date_charged > 14;`

Crimes table

Connections

Oracle Connections

- practicedatabase
- santoshDb
 - Tables (Filtered)
 - Views
 - Indexes
 - Packages
 - Procedures
 - Functions
 - Operators
 - Queues
 - Queues Tables
 - Triggers
 - Types
 - Sequences
 - Materialized Views
 - Materialized View Logs
 - Synonyms

Reports

- All Reports
- Analytic View Reports
- Data Dictionary Reports
- Data Modeler Reports
- OLAP Reports

Welcome Page | santoshDb

Worksheet | Query Builder

```
select * from crimes;
```

Script Output | Query Result

All Rows Fetched: 12 in 0.004 seconds

CRIME_ID	CRIMINAL_ID	CLASSIFICATION	DATE_CHARGED	STATUS	HEARING_DATE	APPEAL_CUT_DATE	DATE_RECORDED
1	10085	1020 F	08-SEP-03	CA	08-SEP-15	08-DEC-15	24-MAR-12
2	10086	1021 M	08-OCT-20	CL	08-DEC-05	(null)	24-MAR-12
3	10087	1022 M	08-OCT-30	IA	08-DEC-05	09-MAR-15	24-MAR-12
4	10088	1023 O	08-NOV-05	CA	(null)	(null)	24-MAR-12
5	10089	1025 M	08-OCT-22	CA	08-NOV-25	09-FEB-15	24-MAR-12
6	10090	1026 M	08-OCT-22	CA	08-NOV-25	09-FEB-15	24-MAR-12
7	10091	1027 M	08-OCT-24	CA	08-NOV-28	09-FEB-15	24-MAR-12
8	10092	1028 M	08-OCT-24	CA	08-NOV-28	09-FEB-15	24-MAR-12
9	10093	1024 M	08-OCT-22	CA	08-NOV-25	09-FEB-15	24-MAR-12
10	10094	1029 M	08-OCT-26	CA	08-NOV-26	09-FEB-17	24-MAR-12
11	25344031	1030 M	08-OCT-26	CA	08-NOV-26	09-FEB-17	24-MAR-12
12	25344060	1030 M	08-NOV-18	CL	08-NOV-26	(null)	24-MAR-12

This are the data showed after the above query is triggered

Output after the query

Connections

Oracle Connections

- practicedatabase
- santoshDb
 - Tables (Filtered)
 - Views
 - Indexes
 - Packages
 - Procedures
 - Functions
 - Operators
 - Queues
 - Queues Tables
 - Triggers
 - Types
 - Sequences
 - Materialized Views
 - Materialized View Logs
 - Synonyms
 - Public Synonyms

Reports

Welcome Page | santoshDb

Worksheet | Query Builder

```
SELECT crime_id as "santosh_crime_id", criminal_id, date_charged, hearing_date from crimes where hearing_date - date_charged > 14;
```

Script Output | Query Result

All Rows Fetched: 9 in 0.014 seconds

santosh_crime_id	CRIMINAL_ID	DATE_CHARGED	HEARING_DATE
1	10086	1021 08-OCT-20	08-DEC-05
2	10087	1022 08-OCT-30	08-DEC-05
3	10089	1025 08-OCT-22	08-NOV-25
4	10090	1026 08-OCT-22	08-NOV-25
5	10091	1027 08-OCT-24	08-NOV-28
6	10092	1028 08-OCT-24	08-NOV-28
7	10093	1024 08-OCT-22	08-NOV-25
8	10094	1029 08-OCT-26	08-NOV-26
9	25344031	1030 08-OCT-26	08-NOV-26

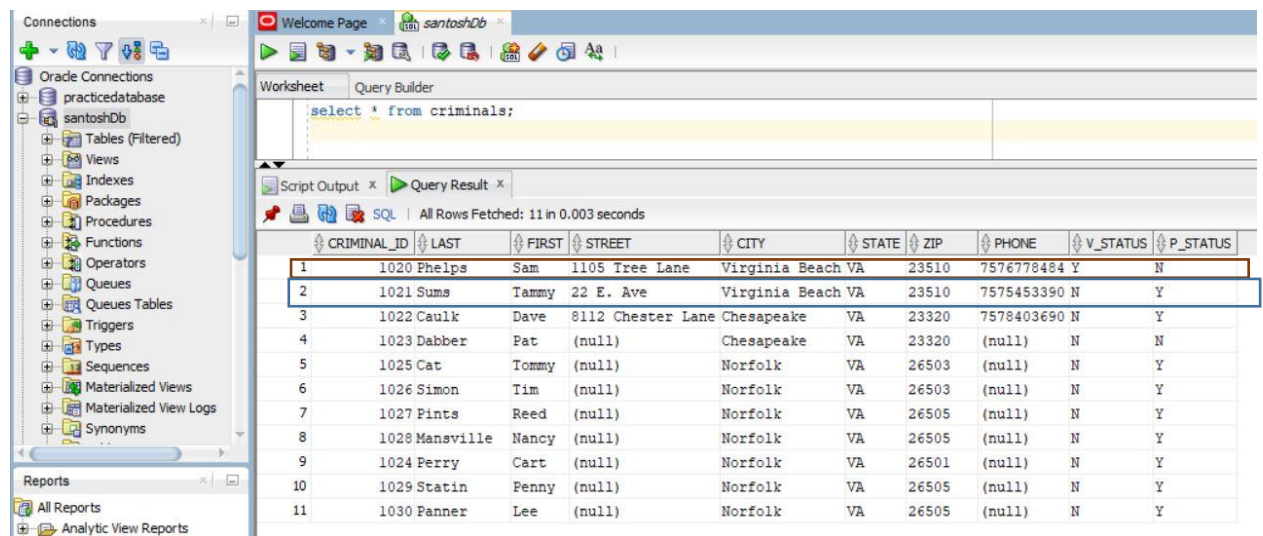
Output of the query

6. Query to list all criminals with the zip code 23510

SQL query

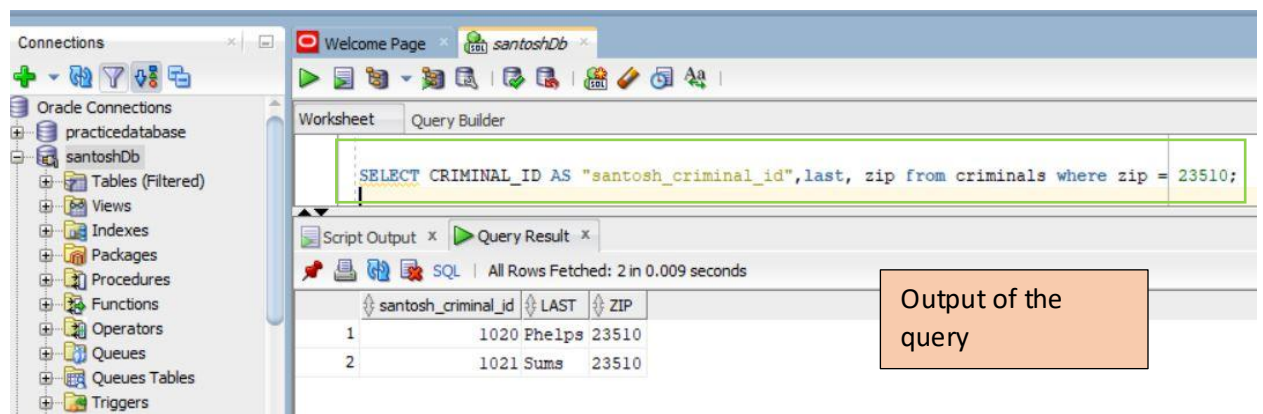
- ❖ `SELECT CRIMINAL_ID AS "Santosh_criminal_id", last, zip from criminals where zip = 23510;`

Criminals table



CRIMINAL_ID	LAST	FIRST	STREET	CITY	STATE	ZIP	PHONE	V_STATUS	P_STATUS
1	1020 Phelps	Sam	1105 Tree Lane	Virginia Beach	VA	23510	7576778484	Y	N
2	1021 Sums	Tammy	22 E. Ave	Virginia Beach	VA	23510	7575453390	N	Y
3	1022 Caulk	Dave	8112 Chester Lane	Chesapeake	VA	23320	7578403690	N	Y
4	1023 Dabber	Pat	(null)	Chesapeake	VA	23320	(null)	N	N
5	1025 Cat	Tommy	(null)	Norfolk	VA	26503	(null)	N	Y
6	1026 Simon	Tim	(null)	Norfolk	VA	26503	(null)	N	Y
7	1027 Pints	Reed	(null)	Norfolk	VA	26505	(null)	N	Y
8	1028 Mansville	Nancy	(null)	Norfolk	VA	26505	(null)	N	Y
9	1024 Perry	Cart	(null)	Norfolk	VA	26501	(null)	N	Y
10	1029 Statin	Penny	(null)	Norfolk	VA	26505	(null)	N	Y
11	1030 Panner	Lee	(null)	Norfolk	VA	26505	(null)	N	Y

Output after the query



santosh_criminal_id	LAST	ZIP
1	1020 Phelps	23510
2	1021 Sums	23510

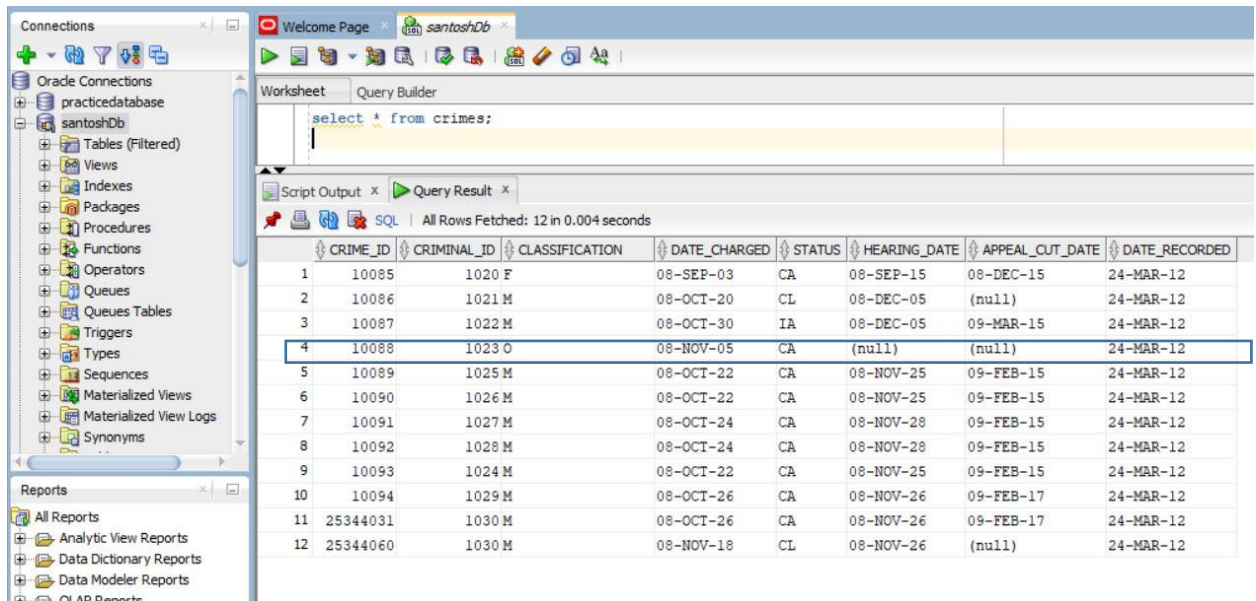
Output of the query

7. Query to list all crimes that don't have a hearing date scheduled

SQL query

- ❖ SELECT CRIME_ID AS "santosh_crime_id", criminal_id, date_charged, hearing_date from crimes where hearing_date is null;

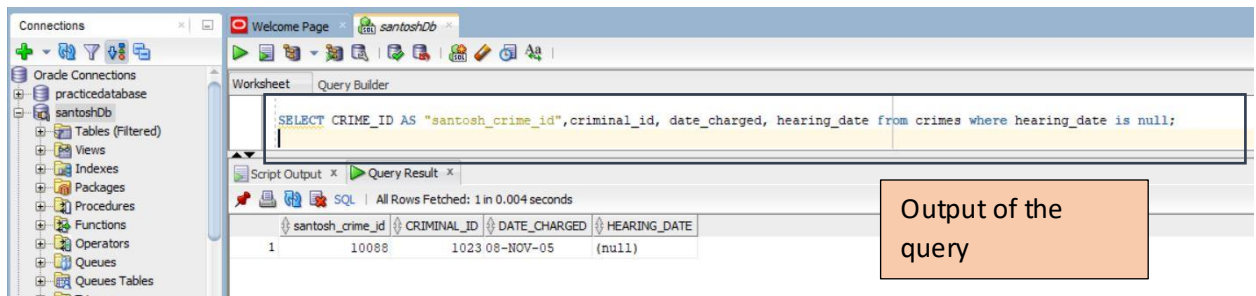
Crimes table



The screenshot shows the Oracle SQL Developer interface. On the left, the 'Connections' pane shows the 'santoshDb' connection. The main window displays the 'Query Result' tab with the following data:

CRIME_ID	CRIMINAL_ID	CLASSIFICATION	DATE_CHARGED	STATUS	HEARING_DATE	APPEAL_CUT_DATE	DATE_RECORDED
1	10085	1020 F	08-SEP-03	CA	08-SEP-15	08-DEC-15	24-MAR-12
2	10086	1021 M	08-OCT-20	CL	08-DEC-05	(null)	24-MAR-12
3	10087	1022 M	08-OCT-30	IA	08-DEC-05	09-MAR-15	24-MAR-12
4	10088	1023 O	08-NOV-05	CA	(null)	(null)	24-MAR-12
5	10089	1025 M	08-OCT-22	CA	08-NOV-25	09-FEB-15	24-MAR-12
6	10090	1026 M	08-OCT-22	CA	08-NOV-25	09-FEB-15	24-MAR-12
7	10091	1027 M	08-OCT-24	CA	08-NOV-28	09-FEB-15	24-MAR-12
8	10092	1028 M	08-OCT-24	CA	08-NOV-28	09-FEB-15	24-MAR-12
9	10093	1024 M	08-OCT-22	CA	08-NOV-25	09-FEB-15	24-MAR-12
10	10094	1029 M	08-OCT-26	CA	08-NOV-26	09-FEB-17	24-MAR-12
11	25344031	1030 M	08-OCT-26	CA	08-NOV-26	09-FEB-17	24-MAR-12
12	25344060	1030 M	08-NOV-18	CL	08-NOV-26	(null)	24-MAR-12

Output after the query



The screenshot shows the Oracle SQL Developer interface with the query executed. The 'Query Result' tab displays the following output:

santosh_crime_id	CRIMINAL_ID	DATE_CHARGED	HEARING_DATE
1	10088	1023 08-NOV-05	(null)

Output of the query

8. Query to list all sentences with a probation officer assigned

SQL query

- ❖ SELECT sentence_id as "santosh_sentence_id", criminal_id, prob_id from sentences where prob_id is not null Order by prob_id, criminal_id;

Sentences table

The screenshot shows the Oracle SQL Developer interface. On the left, the 'Connections' pane displays the 'santoshDb' connection. The main window shows the 'Query Builder' with the query `select * from sentences;`. The 'Query Result' pane displays 11 rows of data from the 'Sentences' table.

	SENTENCE_ID	CRIMINAL_ID	TYPE	PROB_ID	START_DATE	END_DATE	VIOLATIONS
1	1000	1020	J	(null)	15-SEP-08	15-SEP-10	0
2	1001	1021	P		102 05-DEC-08	05-JUN-09	0
3	1002	1022	P		108 20-MAR-09	20-AUG-09	0
4	1004	1025	P		106 20-DEC-08	20-MAR-09	0
5	1005	1026	P		106 20-DEC-08	20-MAR-09	0
6	1006	1027	P		106 20-DEC-08	20-MAR-09	0
7	1007	1028	P		106 20-DEC-08	20-MAR-09	0
8	1003	1024	P		106 20-DEC-08	20-MAR-09	1
9	1008	1029	P		106 20-DEC-08	05-FEB-09	1
10	1009	1030	P		106 20-DEC-08	05-FEB-09	1
11	1010	1030	P		106 06-FEB-09	06-JUL-09	0

Output after the query

The screenshot shows the Oracle SQL Developer interface with a more complex query in the 'Query Builder'. The query is `SELECT sentence_id as "santosh_sentence_id", criminal_id, prob_id from sentences where prob_id is not null Order by prob_id, criminal_id;`. The 'Query Result' pane displays 10 rows of data, filtered by `prob_id is not null` and ordered by `prob_id` and `criminal_id`.

	santosh_sentence_id	CRIMINAL_ID	PROB_ID
1	1001	1021	102
2	1003	1024	106
3	1004	1025	106
4	1005	1026	106
5	1006	1027	106
6	1007	1028	106
7	1008	1029	106
8	1009	1030	106
9	1010	1030	106
10	1002	1022	108

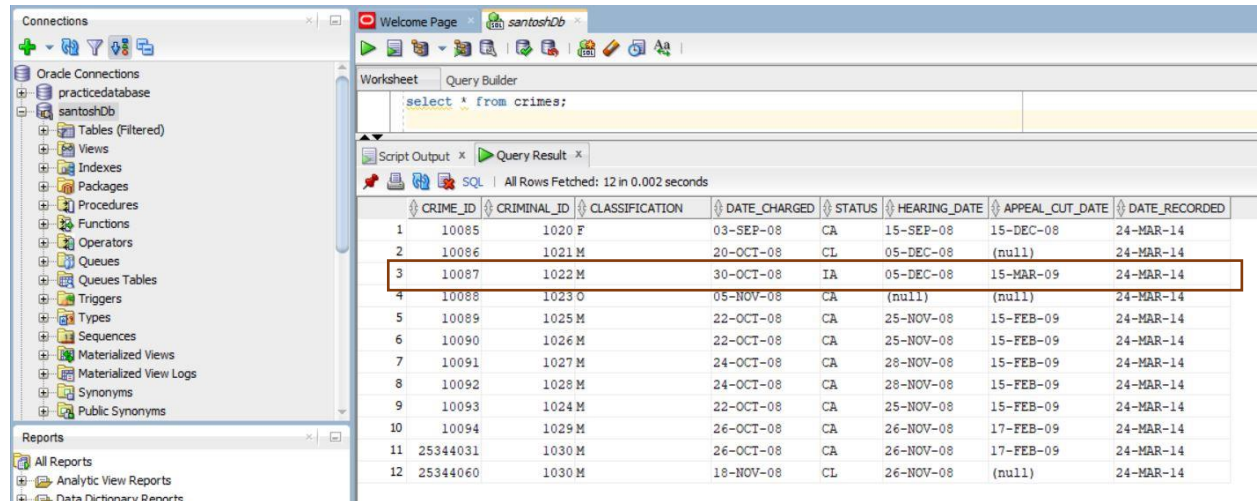
Output of the query

9. Query to list all crimes that are classified as misdemeanors (classification = 'M') and are currently in appeal (stat is 'IA')

SQL query

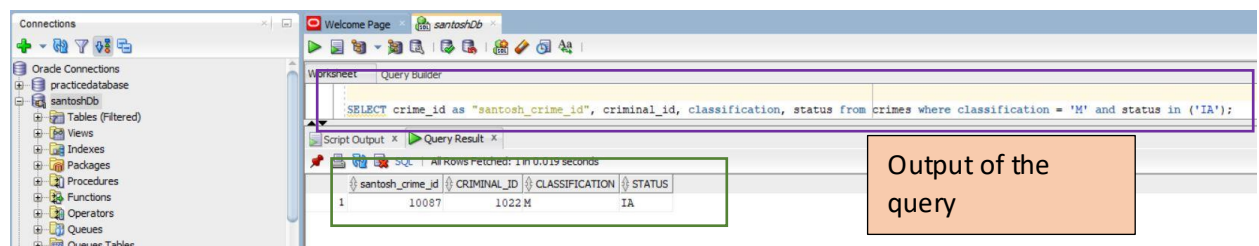
SELECT crime_id as "Santosh_crime_id", criminal_id., classification, status from crimes where classification = 'M' and status in ('IA')

Crimes table



	CRIME_ID	CRIMINAL_ID	CLASSIFICATION	DATE_CHARGED	STATUS	HEARING_DATE	APPEAL_CUT_DATE	DATE_RECORDED
1	10085	1020	F	03-SEP-08	CA	15-SEP-08	15-DEC-08	24-MAR-14
2	10086	1021	M	20-OCT-08	CL	05-DEC-08	(null)	24-MAR-14
3	10087	1022	M	30-OCT-08	IA	05-DEC-08	15-MAR-09	24-MAR-14
4	10088	1023	O	05-NOV-08	CA	(null)	(null)	24-MAR-14
5	10089	1025	M	22-OCT-08	CA	25-NOV-08	15-FEB-09	24-MAR-14
6	10090	1026	M	22-OCT-08	CA	25-NOV-08	15-FEB-09	24-MAR-14
7	10091	1027	M	24-OCT-08	CA	28-NOV-08	15-FEB-09	24-MAR-14
8	10092	1028	M	24-OCT-08	CA	28-NOV-08	15-FEB-09	24-MAR-14
9	10093	1024	M	22-OCT-08	CA	25-NOV-08	15-FEB-09	24-MAR-14
10	10094	1029	M	26-OCT-08	CA	26-NOV-08	17-FEB-09	24-MAR-14
11	25344031	1030	M	26-OCT-08	CA	26-NOV-08	17-FEB-09	24-MAR-14
12	25344060	1030	M	18-NOV-08	CL	26-NOV-08	(null)	24-MAR-14

Output after the query



	santosh_crime_id	CRIMINAL_ID	CLASSIFICATION	STATUS
1	10087	1022	M	IA

Output of the query

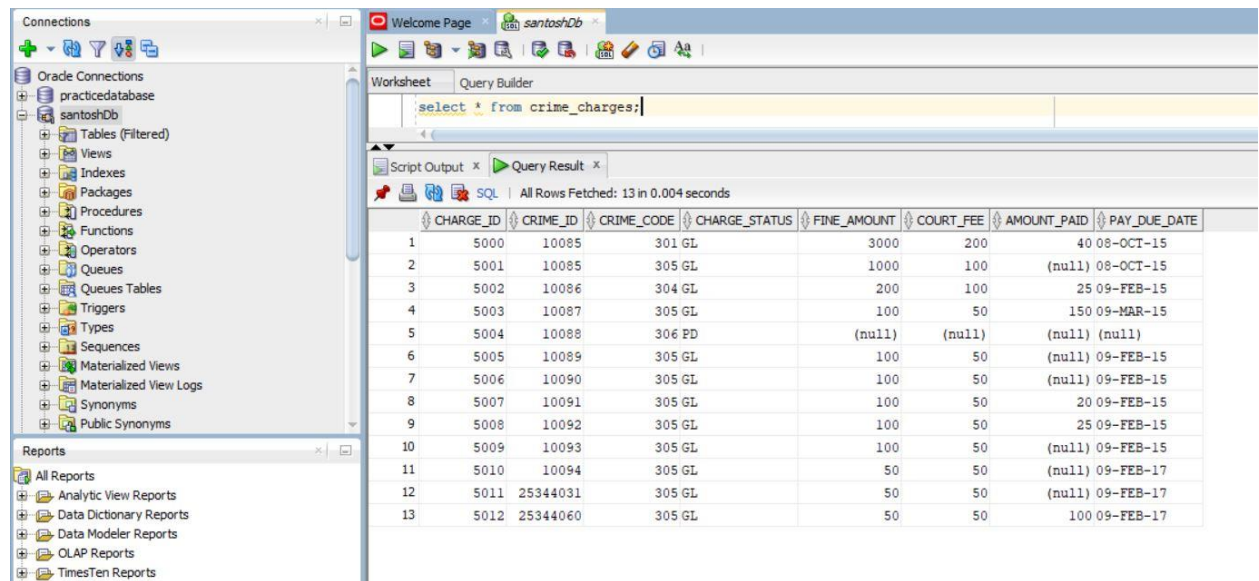
10. Query to list all crime charges with a balance owed. List the charge ID, crime ID, fine amount, court fee, amount paid, and amount owed.

❖ The COALESCE() function returns the first non-null value in a list.

SQL query

- ❖ `SELECT charge_id AS "santosh_charge_id", crime_id, fine_amount, court_fee, amount_paid, (fine_amount + court_fee - COALESCE(amount_paid, 0)) AS "amount_owed" FROM crime_charges WHERE fine_amount IS NOT NULL AND court_fee IS NOT NULL and (fine_amount + court_fee - COALESCE(amount_paid, 0)) > 0;`

Crime Charge table



The screenshot shows the Oracle SQL Developer interface. The left pane displays the database structure for 'santoshDb'. The main pane shows the 'Query Result' for the query 'select * from crime_charges;'. The result is a table with 13 rows and 8 columns: CHARGE_ID, CRIME_ID, CRIME_CODE, CHARGE_STATUS, FINE_AMOUNT, COURT_FEE, AMOUNT_PAID, and PAY_DUE_DATE.

CHARGE_ID	CRIME_ID	CRIME_CODE	CHARGE_STATUS	FINE_AMOUNT	COURT_FEE	AMOUNT_PAID	PAY_DUE_DATE
1	5000	10085	301 GL	3000	200	40	08-OCT-15
2	5001	10085	305 GL	1000	100	(null)	08-OCT-15
3	5002	10086	304 GL	200	100	25	09-FEB-15
4	5003	10087	305 GL	100	50	150	09-MAR-15
5	5004	10088	306 PD	(null)	(null)	(null)	(null)
6	5005	10089	305 GL	100	50	(null)	09-FEB-15
7	5006	10090	305 GL	100	50	(null)	09-FEB-15
8	5007	10091	305 GL	100	50	20	09-FEB-15
9	5008	10092	305 GL	100	50	25	09-FEB-15
10	5009	10093	305 GL	100	50	(null)	09-FEB-15
11	5010	10094	305 GL	50	50	(null)	09-FEB-17
12	5011	25344031	305 GL	50	50	(null)	09-FEB-17
13	5012	25344060	305 GL	50	50	100	09-FEB-17

Output after the query

Connections

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