

PROJECT PART 4

Updated Assumptions:

1. Animals can be transferred from one branch to another
2. Each shelter branch will have multiple employees
3. Each shelter branch will have a branch manager
4. Employees work only in one shelter branch only (no transfer of employees)
5. An animal can be adopted/surrendered to the shelter for various reasons multiple times
6. A vaccination is given each time an animal is detected with any disease
7. Sponsors can support multiple shelter branches
8. Full payment must be done in a single payment for adoption of an animal
9. Each medical condition of an animal is treated by only one veterinarian
10. Veterinarians can treat multiple conditions of multiple animals
11. Each transfer of an animal involves transfer from one branch to another
12. Each veterinary doctor can have multiple specializations
13. All contacts should not contain spaces
14. Employees work on hourly basis and hourly pay varies from employee to employee
15. Any animal is considered as ready for adoption if its vaccination status is up to date

Given Queries:

1. List the total number of dogs ready for adoption by location.

The screenshot displays the Oracle SQL Developer interface. The left sidebar shows a tree view of database objects, including tables like ACCOMMODATE, ADOPTION_DETAILS, ANIMAL_FEATURES, ANIMAL_INFO, ANIMAL_TRANSFER_RECORDS, CONTAIN, DONE_BY, EMPLOYEES_STAFF_DETAILS, EMPLOYEE_PAYROLL, EXAMINE, FACILITIES, GROOMING_HISTORY, MEDICAL_HISTORY, NEED, NUTRITION, PAYMENT_DETAILS, and PERFORM. The main window shows a SQL script with the following content:

```
1 INSERT INTO animal_info VALUES (11, 'Dog', 'GoldenRetriever', DATE '2022-12-20', DATE '2023-08-10', 'Up to date', 2);
2 INSERT INTO animal_info VALUES (12, 'Dog', 'Poodle', DATE '2023-12-20', DATE '2023-08-10', 'Up to date', 3);
3 INSERT INTO animal_info VALUES (13, 'Dog', 'GoldenRetriever', DATE '2022-07-20', DATE '2023-01-10', 'Up to date', 1);
4 INSERT INTO animal_info VALUES (14, 'Dog', 'Poodle', DATE '2020-07-21', DATE '2023-12-10', 'Not vaccinated', 2);
5 INSERT INTO accommodate VALUES (9, 11);
6 INSERT INTO accommodate VALUES (5, 12);
7 INSERT INTO accommodate VALUES (5, 13);
8 INSERT INTO accommodate VALUES (5, 14);
9
10 SELECT sb.shelter_loc, COUNT(DISTINCT ai.animal_id) AS total_dogs_ready_for_adoption
11 FROM shelter_branch sb
12 JOIN accommodate ac ON sb.shelter_id = ac.shelter_id
13 JOIN animal_info ai ON ac.animal_id = ai.animal_id
14 WHERE ai.a.type = 'Dog' AND ai.a.vaccine_status = 'Up to date'
15 GROUP BY sb.shelter_loc;
```

The query results are displayed in a table with the following data:

SHELTER_LOC	TOTAL_DOGS_READY
1 Dallas	1
2 Illinois	1
3 Denton	2

The bottom status bar indicates the query executed successfully, showing 3 rows total and an execution time of 0.125 seconds.

2. Find animal shelter locations without cats available for adoption:

The screenshot shows the Oracle SQL Developer interface. The left sidebar displays a tree view of database objects, including tables like ACCOMMODATE, ADOPTION_DETAILS, ANIMAL_FEATURES, ANIMAL_INFO, ANIMAL_TRANSFER_RECORDS, CONTAIN, DONE_BY, EMPLOYEES_STAFF_DETAILS, EMPLOYEE_PAYROLL, EXAMINE, FACILITIES, GROOMING_HISTORY, MEDICAL_HISTORY, NEED, NUTRITION, PAYMENT_DETAILS, and PERFORM. The main window shows a SQL query in the 'Worksheet' tab:

```
1 SELECT sb.shelter_id, sb.shelter_loc
2 FROM shelter_branch sb
3 WHERE sb.shelter_id NOT IN (
4   SELECT DISTINCT ac.shelter_id
5   FROM accommodate ac
6   JOIN animal_info ai ON ac.animal_id = ai.animal_id
7   WHERE ai.a.type = 'Cat'
8 );
```

The query result is displayed in the 'Query Result' tab, showing 9 rows of shelter locations:

SHELTER_ID	SHELTER_LOC
1	2 Irving
2	3 Houston
3	4 Austin
4	5 Denton
5	6 Denver
6	7 Galveston
7	8 CorpusChristi
8	9 Illinois
9	10 Wisconsin

The status bar at the bottom indicates '1 row(s) total' and 'Execution time: 0.03 seconds'.

3. Find the name of the employee(s) that had worked the most hours on September3, 2023 in a shelter located in Wisconsin:

The screenshot shows the Oracle SQL Developer interface. The left sidebar displays a tree view of database objects, including tables like ACCOMMODATE, ADOPTION_DETAILS, ANIMAL_FEATURES, ANIMAL_INFO, ANIMAL_TRANSFER_RECORDS, CONTAIN, DONE_BY, EMPLOYEES_STAFF_DETAILS, EMPLOYEE_PAYROLL, EXAMINE, FACILITIES, GROOMING_HISTORY, MEDICAL_HISTORY, NEED, NUTRITION, PAYMENT_DETAILS, and PERFORM. The main window shows a SQL query in the 'Worksheet' tab:

```
1 INSERT INTO employees_staff_details (emp_id, emp_name, emp_level, emp_contact, emp_department, emp_training, emp_education, emp_criminal_rec)
2 VALUES (11, 'Jane Doe', 'A1', '+1987654321', 'Administration', 'Management Training', 'Bachelor', 'N', 50000, 10, NULL);
3
4 INSERT INTO employee_payroll (swipe_id, swipe_date, check_in_time, check_out_time, hourly_pay, emp_id)
5 VALUES ('SW1011', DATE '2023-09-03', TIMESTAMP '2023-09-03 08:00:00', TIMESTAMP '2023-09-03 17:00:00', 15.00, 11);
6
7 SELECT emp_name
8 FROM employees_staff_details esd
9 JOIN shelter_branch sb ON esd.shelter_id = sb.shelter_id
10 WHERE esd.emp_id = (
11   SELECT ep.emp_id
12   FROM employee_payroll ep
13   WHERE ep.swipe_date = DATE '2023-09-03'
14   AND ep.emp_id IN (
15     SELECT esd.emp_id
16     FROM employees_staff_details esd
17     WHERE esd.shelter_id = (
18       SELECT shelter_id
19       FROM shelter_branch
20       WHERE shelter_loc = 'Wisconsin'
21     )
22   )
23 );
```

The query result is displayed in the 'Query Result' tab, showing 1 row of employee names:

EMP_NAME
1 Jane Doe

The status bar at the bottom indicates '1 row(s) total' and 'Execution time: 0.047 seconds'.

4. List the shelters that have more employees than animals hosted in their locations:

The screenshot shows the Oracle SQL Developer interface. The left sidebar displays a tree view of database objects, including tables like ACCOMMODATE, ADOPTION_DETAILS, ANIMAL_FEATURES, ANIMAL_INFO, ANIMAL_TRANSFER_RECORDS, CONTAIN, DONE_BY, EMPLOYEES_STAFF_DETAILS, EMPLOYEE_PAYROLL, EXAMINE, FACILITIES, GROOMING_HISTORY, MEDICAL_HISTORY, NEED, NUTRITION, PAYMENT_DETAILS, PERFORM, and SELECTED_OBJECTS. The main window shows a SQL query in a worksheet:

```
1 SELECT sb.shelter_loc
2 FROM shelter_branch sb
3 JOIN (
4     SELECT shelter_id, COUNT(emp_id) AS employee_count
5     FROM employees_staff_details
6     GROUP BY shelter_id
7 ) employees ON sb.shelter_id = employees.shelter_id
8 JOIN (
9     SELECT shelter_id, COUNT(animals_id) AS animal_count
10    FROM accommodate
11    GROUP BY shelter_id
12 ) animals ON sb.shelter_id = animals.shelter_id
13 WHERE employees.employee_count > animals.animal_count;
```

The query result is displayed below the editor, showing two rows of data:

SHELTER_LOC
1 Dallas
2 Wisconsin

The status bar at the bottom indicates the execution time is 0.02 seconds.

5. Print the payroll from March 4, 2022 to March 10, 2022 displaying employee name, hours worked and total salary for all employees

The screenshot shows the Oracle SQL Developer interface. The left sidebar displays a tree view of database objects, including tables like ACCOMMODATE, ADOPTION_DETAILS, ANIMAL_FEATURES, ANIMAL_INFO, ANIMAL_TRANSFER_RECORDS, CONTAIN, DONE_BY, EMPLOYEES_STAFF_DETAILS, EMPLOYEE_PAYROLL, EXAMINE, FACILITIES, GROOMING_HISTORY, MEDICAL_HISTORY, NEED, NUTRITION, PAYMENT_DETAILS, PERFORM, and SELECTED_OBJECTS. The main window shows a SQL query in a worksheet:

```
1 INSERT INTO employees_staff_details VALUES (101, 'John Doe', 'E1', '1234567890', 'Admin', 'Training A', 'Bachelors', 'N', 50000, 1, NULL);
2 INSERT INTO employees_staff_details VALUES (102, 'Jane Smith', 'E2', '9876543210', 'HR', 'Training B', 'Masters', 'N', 60000, 1, NULL);
3 INSERT INTO employees_staff_details VALUES (103, 'David Johnson', 'E3', '5556667777', 'IT', 'Training C', 'PhD', 'N', 70000, 1, NULL);
4 INSERT INTO employees_staff_details VALUES (104, 'Emily Brown', 'E4', '3334445555', 'Finance', 'Training D', 'Bachelors', 'N', 55000, 1, NULL);
5 INSERT INTO employee_payroll VALUES ('SWIPE101', DATE '2022-03-04', TIMESTAMP '2022-03-04 09:00:00', TIMESTAMP '2022-03-04 18:00:00', 10.50);
6 INSERT INTO employee_payroll VALUES ('SWIPE102', DATE '2022-03-04', TIMESTAMP '2022-03-04 09:30:00', TIMESTAMP '2022-03-04 17:30:00', 11.00);
7 INSERT INTO employee_payroll VALUES ('SWIPE103', DATE '2022-03-05', TIMESTAMP '2022-03-05 08:45:00', TIMESTAMP '2022-03-05 16:45:00', 10.50);
8 INSERT INTO employee_payroll VALUES ('SWIPE104', DATE '2022-03-05', TIMESTAMP '2022-03-05 09:15:00', TIMESTAMP '2022-03-05 18:15:00', 11.00);
9 INSERT INTO employee_payroll VALUES ('SWIPE105', DATE '2022-03-04', TIMESTAMP '2022-03-04 09:30:00', TIMESTAMP '2022-03-04 17:30:00', 11.00);
10 INSERT INTO employee_payroll VALUES ('SWIPE106', DATE '2022-03-05', TIMESTAMP '2022-03-05 08:45:00', TIMESTAMP '2022-03-05 16:45:00', 10.50);
11 INSERT INTO employee_payroll VALUES ('SWIPE107', DATE '2022-03-05', TIMESTAMP '2022-03-05 09:15:00', TIMESTAMP '2022-03-05 18:15:00', 11.00);
12
13 SELECT emp_name,
14        hours_worked,
15        emp_salary
16 FROM (
17     SELECT esd.emp_name,
18            CAST(EXTRACT(HOUR FROM (ep.check_out_time - ep.check_in_time)) AS NUMBER) AS hours_worked,
19            esd.emp_salary
20     FROM employees_staff_details esd
21     JOIN employee_payroll ep ON esd.emp_id = ep.emp_id
22     WHERE ep.swipe_date BETWEEN DATE '2022-03-04' AND DATE '2022-03-10'
23 );
```

The query result is displayed below the editor, showing two rows of data:

EMP_NAME	HOURS_WORKED	EMP_SALARY
1 John Doe	9	50000
2 Jane Smith	8	60000

The status bar at the bottom indicates the execution time is 0.02 seconds.

Oracle Database Actions | SQL

Search Database (Ctrl+K)

ADMIN

Navigator

Files

Consumer group: LOW

Data Load

Worksheet

```

1 INSERT INTO employees_staff_details VALUES (101, 'John Doe', 'E1', '1234567890', 'Admin', 'Training A', 'Bachelors', 'N', 50000, 1, NULL);
2 INSERT INTO employees_staff_details VALUES (102, 'Jane Smith', 'E2', '9876543210', 'HR', 'Training B', 'Masters', 'N', 60000, 1, NULL);
3 INSERT INTO employees_staff_details VALUES (103, 'David Johnson', 'E3', '5556667777', 'IT', 'Training C', 'PhD', 'N', 70000, 1, NULL);
4 INSERT INTO employees_staff_details VALUES (104, 'Emily Brown', 'E1', '3334445555', 'Finance', 'Training D', 'Bachelors', 'N', 55000, 1, NULL);
5 INSERT INTO employee_payroll VALUES ('SWIPE101', DATE '2022-03-04', TIMESTAMP '2022-03-04 09:00:00', TIMESTAMP '2022-03-04 18:00:00', 10.50);
6 INSERT INTO employee_payroll VALUES ('SWIPE102', DATE '2022-03-04', TIMESTAMP '2022-03-04 09:30:00', TIMESTAMP '2022-03-04 17:30:00', 11.00);

```

Query Result

Script Output

DBMS Output

Explain Plan

Autotrace

SQL History

Download

Execution time: 0.02 seconds

	EMP_NAME	HOURS WORKED	EMP SALARY
1	John Doe	9	50000
2	Jane Smith	8	60000
3	David Johnson	8	70000
4	Emily Brown	9	55000
5	Jane Smith	8	60000
6	David Johnson	8	70000
7	Emily Brown	9	55000

20°C Cloudy

9:24 PM 3/6/2024

6. Design a delete statement to delete employees with criminal records working in Illinois locations:

Oracle Database Actions | SQL

Search Database

ADMIN

Navigator

Files

Consumer group: LOW

Data Load

Worksheet

```

1 INSERT INTO employees_staff_details VALUES (10111, 'ASDF', 'D1', '+1345678901', 'Facility Maintenance', 'Maintenance Training Program', 'Asst', 'N', 50000, 1, NULL);
2 INSERT INTO employees_staff_details VALUES (10211, 'TYIOP', 'D2', '+1090123456', 'Security', 'Security Officer Training', 'Bachelor', 'Y', 55000, 1, NULL);
3 INSERT INTO employees_staff_details VALUES (10311, 'IYURFH', 'E1', '+1567890234', 'Marketing', 'Marketing Strategy Workshop', 'Master', 'Y', 60000, 1, NULL);
4 INSERT INTO employees_staff_details VALUES (10411, 'TIPOO', 'E2', '+1765432890', 'IT', 'IT Certification Program', 'Bachelor', 'Y', 57000, 1, NULL);

```

```

7 DELETE FROM employees_staff_details
8 WHERE emp_id IN (
9 SELECT esd.emp_id
10 FROM employees_staff_details esd
11 JOIN shelter_branch sb ON esd.shelter_id = sb.shelter_id
12 WHERE sb.shelter_loc = 'Illinois'
13 AND esd.emp_criminal_record = 'Y'
14 );

```

Query Result

Script Output

DBMS Output

Explain Plan

Autotrace

SQL History

Elapsed: 00:00:00.006

1 row inserted.

Elapsed: 00:00:00.006

4 rows deleted.

Elapsed: 00:00:00.029

20°C Cloudy

9:26 PM 3/6/2024

- Design an update statement to give a 23% salary raise to employees working more than 5 hours from March 4, 2023 to March 10, 2023:

The screenshot shows the Oracle SQL Developer interface. The SQL window contains the following query:

```
1 INSERT INTO employee_payroll VALUES ('SWIPE1111', DATE '2023-03-04', TIMESTAMP '2023-03-04 09:30:00', TIMESTAMP '2023-03-04 17:30:00', 11.00)
2 INSERT INTO employee_payroll VALUES ('SWIPE2222', DATE '2023-03-05', TIMESTAMP '2023-03-05 08:45:00', TIMESTAMP '2023-03-05 16:45:00', 10.50)
3 INSERT INTO employee_payroll VALUES ('SWIPE3333', DATE '2023-03-05', TIMESTAMP '2023-03-05 09:15:00', TIMESTAMP '2023-03-05 18:15:00', 11.00)
4
5 UPDATE employees_staff_details esd
6 SET emp_salary = emp_salary * 1.23
7 WHERE emp_id IN (
8   SELECT ep.emp_id
9   FROM employee_payroll ep
10  WHERE ep.swipe_date BETWEEN DATE '2023-03-04' AND DATE '2023-03-10'
11     AND CAST(EXTRACT(HOUR FROM (ep.check_out_time - ep.check_in_time)) AS NUMBER) > 5
12 );
13
```

The Query Result pane shows the following output:

```
1 row inserted.
Elapsed: 00:00:00.008

1 row inserted.
Elapsed: 00:00:00.008

3 rows updated.
Elapsed: 00:00:00.025
```

Additional Queries:

- Find Avg. Weight of animals per type?

The screenshot shows the Oracle SQL Developer interface. The SQL window contains the following query:

```
1 SELECT a1.a_type, AVG(a1.a_weight) as average_weight
2 FROM animal_info a1
3 JOIN animal_features af ON a1.animal_features_id = af.animal_features_id
4 GROUP BY a1.a_type;
5
```

The Query Result pane shows the following output:

A_TYPE	AVERAGE_WEIGHT
1 Dog	14.8
2 Cat	20
3 Rabbit	8
4 Parrot	15
5 Hamster	19
6 Guinea Pig	11
7 Turtle	14
8 Fish	17
9 Bird	11
10 Snake	10

2. List the sponsors along with the total amount they have paid:

The screenshot shows the Oracle SQL Developer interface. The left sidebar contains a 'Navigator' pane with a tree view of database objects. The main workspace displays a SQL query in a text editor. Below the editor, the 'Query Result' pane shows the execution output as a table. The query is as follows:

```
1 SELECT s.sponsor_name, SUM(pd.amount) AS total_contributions
2 FROM sponsor s
3 JOIN payment_details pd ON s.sponsor_id = pd.sponsor_id
4 GROUP BY s.sponsor_name
5
6
```

The query result table has two columns: **SPONSOR_NAME** and **TOTAL_CONTRIBUTI**. It contains 10 rows of data:

SPONSOR_NAME	TOTAL_CONTRIBUTI
John Doe	500
Jane Smith	750
Alice Johnson	600
Bob Brown	450
Eva White	700
Michael Lee	800
Emma Davis	550
James Wilson	900
Olivia Miller	650
William Taylor	750

3. List the shelter locations with the highest number of dogs available for adoption:

The screenshot shows the Oracle SQL Developer interface. The left sidebar contains a 'Navigator' pane with a tree view of database objects. The main workspace displays a SQL query in a text editor. Below the editor, the 'Query Result' pane shows the execution output as a table. The query is as follows:

```
1 SELECT sb.shelter_loc, COUNT(*) AS total_dogs
2 FROM shelter_branch sb
3 JOIN accommodate ac ON sb.shelter_id = ac.shelter_id
4 JOIN animal_info ai ON ac.animal_id = ai.animal_id
5 WHERE ai.a.type = 'Dog'
6 GROUP BY sb.shelter_loc
7 ORDER BY total_dogs DESC
8 FETCH FIRST ROW ONLY;
9
```

The query result table has two columns: **SHELTER_LOC** and **TOTAL_DOGS**. It contains 1 row of data:

SHELTER_LOC	TOTAL_DOGS
Denton	3

4. Find the total number of employees and animals hosted in each shelter location:

The screenshot shows the Oracle SQL Developer interface. The left sidebar displays a tree view of database objects, including tables like ACCOMMODATE, ADOPTION_DETAILS, ANIMAL_FEATURES, ANIMAL_INFO, ANIMAL_TRANSFER_RECORDS, CONTAIN, DONE_BY, EMPLOYEES_STAFF_DETAILS, EMPLOYEE_PAYROLL, EXAMINE, FACILITIES, GROOMING_HISTORY, MEDICAL_HISTORY, NEED, NUTRITION, PAYMENT_DETAILS, and PERFORM. The main window shows a SQL query in a worksheet:

```
1 SELECT sb.shelter_loc, COUNT(DISTINCT esd.emp_id) AS total_employees, COUNT(ac.animal_id) AS total_animals
2 FROM shelter_branch sb
3 LEFT JOIN employees_staff_details esd ON sb.shelter_id = esd.shelter_id
4 LEFT JOIN accommodate ac ON sb.shelter_id = ac.shelter_id
5 GROUP BY sb.shelter_loc;
```

The query result is displayed in a table with the following data:

SHELTER_LOC	TOTAL_EMPLOYEES	TOTAL_ANIMALS
1 Dallas	8	16
2 Irving	3	0
3 Wisconsin	4	8
4 Denver	0	0
5 Galveston	0	0
6 CorpusChristi	0	1
7 Austin	0	2
8 Denton	0	3
9 Houston	0	1
10 Illinois	0	3

5. Calculate the total hours worked and total pay for each employee:

The screenshot shows the Oracle SQL Developer interface. The left sidebar displays a tree view of database objects, including tables like ACCOMMODATE, ADOPTION_DETAILS, ANIMAL_FEATURES, ANIMAL_INFO, ANIMAL_TRANSFER_RECORDS, CONTAIN, DONE_BY, EMPLOYEES_STAFF_DETAILS, EMPLOYEE_PAYROLL, EXAMINE, FACILITIES, GROOMING_HISTORY, MEDICAL_HISTORY, NEED, NUTRITION, PAYMENT_DETAILS, and PERFORM. The main window shows a SQL query in a worksheet:

```
1 SELECT
2   ep.emp_id,
3   esd.emp_name,
4   ep.swipe_date,
5   SUM(EXTRACT(HOUR FROM ep.check_out_time - ep.check_in_time) + 60 * EXTRACT(MINUTE FROM ep.check_out_time - ep.check_in_time)) / 60 AS total_hours_wof,
6   ep.hourly_pay,
7   ROUND(SUM(EXTRACT(HOUR FROM ep.check_out_time - ep.check_in_time) + 60 * EXTRACT(MINUTE FROM ep.check_out_time - ep.check_in_time)) / 60 * ep.hourly_pay) AS total_pay
8 FROM
9   employee_payroll ep
10 JOIN employees_staff_details esd ON ep.emp_id = esd.emp_id
11 GROUP BY
12   ep.emp_id, esd.emp_name, ep.hourly_pay, ep.swipe_date
13 ORDER BY
14   esd.emp_name, ep.swipe_date;
```

The query result is displayed in a table with the following data:

EMP_ID	EMP_NAME	SWIPE_DATE	TOTAL_HOURS_WOF	HOURLY_PAY	TOTAL_PAY
1	10 Ava Martinez	1/10/2023, 12:00:00 A	8.5	15	127.5
2	5 Daniel Jones	1/5/2023, 12:00:00 A	8.5	10	85
3	103 David Johnson	3/5/2022, 12:00:00 A	16	10.5	168
4	103 David Johnson	3/5/2023, 12:00:00 A	8	10.5	84
5	104 Emily Brown	3/5/2022, 12:00:00 A	18	11	198
6	104 Emily Brown	3/5/2023, 12:00:00 A	9	11	99

Oracle Database Actions | SQL

Search Database (Ctrl+K)

ADMIN

Tables

Search...

Navigator

Files

Worksheet 1*

Consumer group: LOW

Data Load

```

1 SELECT
2   ep.emp_id,
3   esd.emp_name,
4   ep.swipe_date,
5   SUM(EXTRACT(HOUR FROM ep.check_out_time - ep.check_in_time) + 60 + EXTRACT(MINUTE FROM ep.check_out_time - ep.check_in_time)) / 60 AS total_hours_wof
6   ep.hourly_pay,

```

Query Result

Script Output

DBMS Output

Explain Plan

Autotrace

SQL History

Download

Execution time: 0.147 seconds

	EMP_ID	EMP_NAME	SWIPE_DATE	TOTAL_HOURS_WOF	HOURLY_PAY	TOTAL_PAY
8	4	Emma Brown	1/4/2023, 12:00:00 AM	9.5	15	142.5
9	11	Jane Doe	9/3/2023, 12:00:00 AM	9	15	135
10	102	Jane Smith	3/4/2022, 12:00:00 AM	16	11	176
11	102	Jane Smith	3/4/2023, 12:00:00 AM	8	11	88
12	101	John Doe	3/4/2023, 12:00:00 AM	9	10.5	94.5
13	1	John Smith	1/1/2023, 12:00:00 AM	9	10	90
14	7	Liam Miller	1/7/2023, 12:00:00 AM	9	15	135
15	3	Michael Williams	1/3/2023, 12:00:00 AM	9	10	90
16	9	Noah Taylor	1/9/2023, 12:00:00 AM	8	10.5	84
17	6	Olivia Davis	1/6/2023, 12:00:00 AM	8.5	15	127.5
18	8	Sophia Wilson	1/8/2023, 12:00:00 AM	8	15	120

1 20°C Cloudy

9:34 PM 3/6/2024

6. Find the number of examinations conducted by each veterinarian:

Oracle Database Actions | SQL

Search Database

ADMIN

Tables

Search...

Navigator

Files

Worksheet 1*

Consumer group: LOW

Data Load

```

1 SELECT v.vet_id, v.vet_name, COUNT(e.medical_id) AS num_examinations
2 FROM veterinary v
3 LEFT JOIN examine e ON v.vet_id = e.vet_id
4 GROUP BY v.vet_id, v.vet_name;

```

Query Result

Script Output

DBMS Output

Explain Plan

Autotrace

SQL History

Download

Execution time: 0.021 seconds

	VET_ID	VET_NAME	NUM_EXAMINATION
1	1	Dr. Smith	1
2	2	Dr. Johnson	1
3	3	Dr. Williams	1
4	4	Dr. Brown	1
5	5	Dr. Wilson	1
6	6	Dr. Lee	1
7	7	Dr. Martinez	1
8	8	Dr. Garcia	1
9	9	Dr. Anderson	1
10	10	Dr. Taylor	1

1 20°C Cloudy

9:36 PM 3/6/2024

7. Find the total quantity of each type of food needed for all animals:

The screenshot shows the Oracle SQL Developer interface. The left sidebar displays a tree view of database objects, including ADMIN, Tables, and various tables like ACCOMMODATE, ADOPTION_DETAILS, ANIMAL_FEATURES, ANIMAL_INFO, ANIMAL_TRANSFER_RECORDS, CONTAIN, DONE_BY, EMPLOYEES_STAFF_DETAILS, EMPLOYEE_PAYROLL, EXAMINE, FACILITIES, GROOMING_HISTORY, MEDICAL_HISTORY, NEED, NUTRITION, PAYMENT_DETAILS, and PERFORM. The main window shows a SQL worksheet with the following query:

```
1 SELECT n.food_id, n.food_type, SUM(n.food_quantity) AS total_needed
2 FROM need ne
3 JOIN nutrition n ON ne.food_id = n.food_id
4 GROUP BY n.food_id, n.food_type;
```

The query result is displayed in a table with the following columns: FOOD_ID, FOOD_TYPE, and TOTAL_NEEDED. The execution time is 0.024 seconds.

FOOD_ID	FOOD_TYPE	TOTAL_NEEDED
1	1 Dry Food	100
2	2 Canned Food	50
3	3 Raw Food	75
4	4 Wet Food	80
5	5 Grain-Free Food	90
6	6 Homemade Food	60
7	7 Vegetarian Food	40
8	8 Organic Food	70
9	9 Senior Food	55
10	10 Puppy Food	65

8. List of All Facilities with Play Areas but No Temperature Control

The screenshot shows the Oracle SQL Developer interface. The left sidebar displays a tree view of database objects, including ADMIN, Tables, and various tables like ACCOMMODATE, ADOPTION_DETAILS, ANIMAL_FEATURES, ANIMAL_INFO, ANIMAL_TRANSFER_RECORDS, CONTAIN, DONE_BY, EMPLOYEES_STAFF_DETAILS, EMPLOYEE_PAYROLL, EXAMINE, FACILITIES, GROOMING_HISTORY, MEDICAL_HISTORY, NEED, NUTRITION, PAYMENT_DETAILS, and PERFORM. The main window shows a SQL worksheet with the following query:

```
1 SELECT shelter_name, shelter_loc, f.capacity
2 FROM facilities f
3 JOIN shelter_branch sb ON f.shelter_id = sb.shelter_id
4 WHERE play_areas = 'Y' AND temp_control = 'N';
```

The query result is displayed in a table with the following columns: SHELTER_NAME, SHELTER_LOC, and F_CAPACITY. The execution time is 0.024 seconds.

SHELTER_NAME	SHELTER_LOC	F_CAPACITY
1 Shelter A	Dallas	50
2 Shelter E	Denton	55

9. Average Duration Between Animal Acquisition and Adoption

The screenshot shows the Oracle SQL Developer interface. The left sidebar displays a tree view of database objects, including tables like ACCOMMODATE, ADOPTION_DETAILS, ANIMAL_FEATURES, ANIMAL_INFO, ANIMAL_TRANSFER_RECORDS, CONTAIN, DONE_BY, EMPLOYEES_STAFF_DETAILS, EMPLOYEE_PAYROLL, EXAMINE, FACILITIES, GROOMING_HISTORY, MEDICAL_HISTORY, NEED, NUTRITION, PAYMENT_DETAILS, and PERFORM. The main window shows a SQL worksheet with the following query:

```
1 SELECT a1.a_type, AVG(ad.ad_date - a1.date_of_acquisition) AS avg_days_until_adoption
2 FROM animal_info a1
3 JOIN contain c ON a1.animal_id = c.animal_id
4 JOIN adoption_details ad ON c.ad_id = ad.ad_id
5 GROUP BY a1.a_type;
```

The query results are displayed in a table with the following data:

A TYPE	AVG_DAYS_UNTIL_A
1 Dog	297
2 Cat	196
3 Rabbit	160
4 Parrot	125
5 Hamster	109
6 Guinea Pig	69
7 Turtle	28
8 Fish	2
9 Bird	-17
10 Snake	-53

The status bar at the bottom indicates the execution time was 0.047 seconds and the total number of rows is 10.

10. Find the number of employees under each manager:

The screenshot shows the Oracle SQL Developer interface. The left sidebar displays a tree view of database objects, including tables like ACCOMMODATE, ADOPTION_DETAILS, ANIMAL_FEATURES, ANIMAL_INFO, ANIMAL_TRANSFER_RECORDS, CONTAIN, DONE_BY, EMPLOYEES_STAFF_DETAILS, EMPLOYEE_PAYROLL, EXAMINE, FACILITIES, GROOMING_HISTORY, MEDICAL_HISTORY, NEED, NUTRITION, PAYMENT_DETAILS, and PERFORM. The main window shows a SQL worksheet with the following query:

```
1 SELECT esd.manager_emp_id,
2 COUNT(esd.emp_id) AS num_employees
3 FROM employees_staff_details esd
4 GROUP BY esd.manager_emp_id;
```

The query results are displayed in a table with the following data:

MANAGER_EMP_ID	NUM_EMPLOYEES
1 (null)	7
2 1	5
3 2	3

The status bar at the bottom indicates the execution time was 0.009 seconds and the total number of rows is 3.

Update Statements:

1. Update the vaccination date when the treatment_date is : 2023-08-20

The screenshot shows the Oracle SQL Developer interface. The left sidebar contains a 'Navigator' pane with a tree view of database objects, including 'ADMIN', 'Tables', and various tables like 'ACCOMMODATE', 'ADOPTION_DETAILS', etc. The main workspace displays a SQL script in a 'Worksheet' tab. The script is as follows:

```
1 UPDATE vaccination
2 SET vaccination_date = DATE '2024-03-05'
3 WHERE vaccination_id IN (
4   SELECT vaccination_id
5   FROM medical_history
6   WHERE treatment_date = DATE '2023-08-20'
7 );
8
```

Below the script, the 'Query Result' pane shows the execution output:

Query Result
1 row inserted.
Elapsed: 00:00:00.008
3 rows updated.
Elapsed: 00:00:00.025
1 row updated.
Elapsed: 00:00:00.013

The status bar at the bottom indicates the session is 'Powered by ORDS' and the time is 9:42 PM on 3/6/2024.

2. Update the transfer date for a specific animal:

The screenshot shows the Oracle SQL Developer interface. The left sidebar contains a 'Navigator' pane with a tree view of database objects, including 'ADMIN', 'Tables', and various tables like 'ACCOMMODATE', 'ADOPTION_DETAILS', etc. The main workspace displays a SQL script in a 'Worksheet' tab. The script is as follows:

```
1 UPDATE animal_transfer_records
2 SET transfer_date = DATE '2023-06-15'
3 WHERE animal_id = (
4   SELECT animal_id
5   FROM animal_info
6   WHERE a_type = 'Cat'
7 );
8
```

Below the script, the 'Query Result' pane shows the execution output:

Query Result
3 rows updated.
Elapsed: 00:00:00.025
1 row updated.
Elapsed: 00:00:00.013
1 row updated.
Elapsed: 00:00:00.011

The status bar at the bottom indicates the session is 'Powered by ORDS' and the time is 9:43 PM on 3/6/2024.

3. Update the food type for animals with diabetes in the nutrition table

The screenshot shows the Oracle SQL Developer interface. The left sidebar displays a tree view of database objects, including tables like ACCOMMODATE, ADOPTION_DETAILS, ANIMAL_FEATURES, ANIMAL_INFO, ANIMAL_TRANSFER_RECORDS, CONTAIN, DONE_BY, EMPLOYEES_STAFF_DETAILS, EMPLOYEE_PAYROLL, EXAMINE, FACILITIES, GROOMING_HISTORY, MEDICAL_HISTORY, NEED, NUTRITION, PAYMENT_DETAILS, and PERFORM. The main window shows a SQL script in a worksheet:

```
1 UPDATE nutrition n
2 SET n.food_type = 'Special Diet'
3 WHERE n.food_id IN (
4   SELECT ne.food_id
5   FROM need ne
6   JOIN stores s ON ne.animal_id = s.animal_info_id
7   JOIN medical_history mh ON s.medical_history_id = mh.medical_id
8   WHERE mh.disease = 'Diabetes'
9 );
10
```

The query results pane shows three rows of updates, each with an elapsed time of 00:00:00.013, 00:00:00.011, and 00:00:00.027 respectively. The status bar at the bottom indicates the session is executed by ADMIN at 3:44:20 AM on 3/6/2024.

4. Update shelter's capacity based on the number of animals transferred out

The screenshot shows the Oracle SQL Developer interface. The left sidebar displays a tree view of database objects, including tables like ACCOMMODATE, ADOPTION_DETAILS, ANIMAL_FEATURES, ANIMAL_INFO, ANIMAL_TRANSFER_RECORDS, CONTAIN, DONE_BY, EMPLOYEES_STAFF_DETAILS, EMPLOYEE_PAYROLL, EXAMINE, FACILITIES, GROOMING_HISTORY, MEDICAL_HISTORY, NEED, NUTRITION, PAYMENT_DETAILS, and PERFORM. The main window shows a SQL script in a worksheet:

```
1 UPDATE facilities f
2 SET f.capacity = f.capacity - 1
3 WHERE f.shelter_id = (
4   SELECT t.shelter_id
5   FROM transfers t
6   JOIN animal_transfer_records atr ON t.transfer_id = atr.transfer_id
7   WHERE atr.transfer_date = DATE '2023-03-20'
8 );
9
```

The query results pane shows three rows of updates, each with an elapsed time of 00:00:00.011, 00:00:00.027, and 00:00:00.027 respectively. The status bar at the bottom indicates the session is executed by ADMIN at 3:45:33 AM on 3/6/2024.

5. Update grooming type for animals with certain features:

The screenshot shows the Oracle SQL Developer interface. The left sidebar contains a 'Navigator' pane with a tree view of database objects, including 'ADMIN', 'Tables', and various tables like 'ACCOMMODATE', 'ADOPTION_DETAILS', 'ANIMAL_FEATURES', etc. The main window displays an SQL script in a 'Worksheet' tab. The script is as follows:

```
1 UPDATE facilities f
2 SET f.f_capacity = f.f_capacity - 1
3 WHERE f.shelter_id = (
4   SELECT t.shelter_id
5   FROM transfers t
6   JOIN animal_transfer_records atr ON t.transfer_id = atr.transfer_id
7   WHERE atr.transfer_date = DATE '2023-03-20'
8 );
9
```

Below the script, the 'Query Result' pane shows the execution output:

Query Result
1 row updated. Elapsed: 00:00:00.027
1 row updated. Elapsed: 00:00:00.027
1 row updated. Elapsed: 00:00:00.006

The status bar at the bottom indicates '3:48:21 AM - SQL executed by ADMIN' and 'Powered by ODS'.

6. Update the training type for employees at top level

The screenshot shows the Oracle SQL Developer interface. The left sidebar contains a 'Navigator' pane with a tree view of database objects, including 'ADMIN', 'Tables', and various tables like 'ACCOMMODATE', 'ADOPTION_DETAILS', 'ANIMAL_FEATURES', etc. The main window displays an SQL script in a 'Worksheet' tab. The script is as follows:

```
1 UPDATE training_history th
2 SET training_type = 'Leadership Training'
3 WHERE th.training_ID IN (
4   SELECT db.training_ID
5   FROM done_by db
6   JOIN employees_staff_details esd ON db.emp_id = esd.emp_id
7   WHERE (esd.emp_level = 'E1') or (esd.emp_level = 'E2')
8 );
9
```

Below the script, the 'Query Result' pane shows the execution output:

Query Result
1 row updated. Elapsed: 00:00:00.027
1 row updated. Elapsed: 00:00:00.006
2 rows updated. Elapsed: 00:00:00.179

The status bar at the bottom indicates '3:49:40 AM - SQL executed by ADMIN' and 'Powered by ODS'.

Delete Statements:

1. Delete the payroll of the employees who have not done any training:

The screenshot shows the Live SQL interface with the following SQL statements:

```
1 INSERT INTO employees_staff_details VALUES (11123451, 'John Smith', 'A1', '+1234567890', 'Administration', 'None', 'Bachelor', 'N', 50000, 1, NULL);
2 INSERT INTO employee_payroll VALUES ('SW100111', TO_DATE('2023-01-01', 'YYYY-MM-DD'), TIMESTAMP '2023-01-01 08:00:00', TIMESTAMP '2023-01-01 17:00:00', 10.00, 11123451);
3
4 DELETE FROM employee_payroll
5 WHERE emp_id IN (
6   SELECT emp_id
7   FROM employees_staff_details
8   WHERE emp_training = 'None'
9 );
10
```

The execution results show:

```
1 row(s) inserted.
1 row(s) inserted.
1 row(s) deleted.
```

Footer: 2024 Oracle - Live SQL 24.1.2, running Oracle Database 19c EE Extreme Perf - 19.17.0.0.0 - Database Documentation - Ask Tom - Dev Gym
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2. Delete all records from the sponsor table for sponsors who have not made any payments:

The screenshot shows the Live SQL interface with the following SQL statements:

```
1 INSERT INTO sponsor VALUES (1111, 'John Doe', '+1234567890', 'Gold');
2
3 DELETE FROM sponsor
4 WHERE sponsor_id NOT IN (
5   SELECT sponsor_id
6   FROM payment_details
7 );
8
9
```

The execution results show:

```
1 row(s) inserted.
1 row(s) deleted.
```

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3. Delete all records from the animal_info table where the animals are of type 'Cat', and they have not been transferred to any other shelter, and their vaccination status is not up to date

The screenshot shows the Live SQL interface with the following SQL code:

```
1 INSERT INTO animal_info VALUES (67890, 'Cat', 'Billi', DATE '2019-03-15', DATE '2023-05-01', 'No vaccinations', 1);
2
3 DELETE FROM animal_info
4 WHERE a_type = 'Cat'
5 AND animal_id NOT IN (
6     SELECT animal_id
7     FROM animal_transfer_records
8 )
9 AND animal_id NOT IN (
10    SELECT animal_id
11    FROM animal_info
12    WHERE a_vaccine_status = 'Up to date'
13 );
14
```

The execution results show:

```
1 row(s) inserted.
1 row(s) deleted.
```

At the bottom, it says: 2024 Oracle - Live SQL 24.1.2, running Oracle Database 19c EE Extreme Perf - 19.17.0.0.0 - Database Documentation - Ask Tom - Dev Gym. Built with using Oracle APEX - Privacy - Terms of Use.

4. Delete the animal transfer record if the animal type is cat and the location is Shelter C:

The screenshot shows the Live SQL interface with the following SQL code:

```
1 INSERT INTO animal_info VALUES (9990, 'Cat', 'Labrador Retriever', DATE '2019-03-15', DATE '2023-05-01', 'Up to date', 1);
2 INSERT INTO animal_transfer_records VALUES (990, TO_DATE('2023-01-10', 'YYYY-MM-DD'), 'Shelter C', 'Shelter F', 9990);
3
4 DELETE FROM animal_transfer_records
5 WHERE animal_id IN (
6     SELECT animal_id
7     FROM animal_info
8     WHERE a_type = 'Cat'
9 )
10 AND transfer_from = 'Shelter C';
11
```

The execution results show:

```
1 row(s) inserted.
1 row(s) inserted.
1 row(s) deleted.
```

At the bottom, it says: 2024 Oracle - Live SQL 24.1.2, running Oracle Database 19c EE Extreme Perf - 19.17.0.0.0 - Database Documentation - Ask Tom - Dev Gym. Built with using Oracle APEX - Privacy - Terms of Use.

5. Delete medical history of the records where the vaccination dosage is last

The screenshot shows the Oracle SQL Developer interface. The left sidebar displays a tree view of database objects, including tables like ACCOMMODATE, ADOPTION_DETAILS, ANIMAL_FEATURES, ANIMAL_INFO, ANIMAL_TRANSFER_RECORDS, CONTAIN, DONE_BY, EMPLOYEES_STAFF_DETAILS, EMPLOYEE_PAYROLL, EXAMINE, FACILITIES, GROOMING_HISTORY, MEDICAL_HISTORY, NEED, NUTRITION, PAYMENT_DETAILS, and PERFORM. The main window shows a SQL script with the following content:

```
1 INSERT INTO vaccination VALUES (67899, 'Canine Influenza', TO_DATE('2023-09-05', 'YYYY-MM-DD'), 'Last');
2
3 INSERT INTO medical_history VALUES (987656, 'Flu', 67899, TO_DATE('2023-01-01', 'YYYY-MM-DD'));
4
5
6 DELETE FROM medical_history
7 WHERE vaccination_id IS NOT NULL
8 AND vaccination_id IN (
9   SELECT vaccination_id
10  FROM vaccination
11  WHERE vaccination_dosage = 'Last'
12 );
```

The Query Result tab shows the execution results:

- 1 row inserted. Elapsed: 00:00:00.007
- 1 row inserted. Elapsed: 00:00:00.146
- 1 row deleted. Elapsed: 00:00:00.014

The status bar at the bottom indicates "5:04:14 AM - SQL executed by ADMIN" and "Powered by ORDS".

6. Delete the animal information of Dogs which are underweight:

The screenshot shows the Oracle SQL Developer interface. The left sidebar displays a tree view of database objects, including tables like ACCOMMODATE, ADOPTION_DETAILS, ANIMAL_FEATURES, ANIMAL_INFO, ANIMAL_TRANSFER_RECORDS, CONTAIN, DONE_BY, EMPLOYEES_STAFF_DETAILS, EMPLOYEE_PAYROLL, EXAMINE, FACILITIES, GROOMING_HISTORY, MEDICAL_HISTORY, NEED, NUTRITION, PAYMENT_DETAILS, and PERFORM. The main window shows a SQL script with the following content:

```
1 INSERT INTO animal_info VALUES (27345, 'Dog', 'Labrador Retriever', DATE '2019-03-15', DATE '2023-05-01', 'Up to date', 333);
2 INSERT INTO animal_features VALUES (589384, 'Calico', 9.5, 24.8, 'Brown', 'Underweight');
3
4 DELETE FROM animal_info
5 WHERE a_type = 'Dog'
6 AND animal_id IN (
7   SELECT af.animal_id
8   FROM animal_info af
9   JOIN animal_features af ON af.animal_id = af.animal_id
10  WHERE af.condition = 'Underweight'
11 );
12
```

The Query Result tab shows the execution results:

- 0 rows deleted. Elapsed: 00:00:00.008
- 0 rows deleted. Elapsed: 00:00:00.388
- 2 rows deleted. Elapsed: 00:00:00.041

The status bar at the bottom indicates "4:00:23 AM - SQL executed by ADMIN" and "Powered by ORDS".

Individual Contributions:

My contribution revolved around a series of questions, each with a specific objective.

First, I addressed the issue of finding adoption-ready dogs in different locations. This was not just about the statistics. It was about integrating the creature into loving homes, ensuring that no dog was overlooked. After carefully entering and analysing detailed records, the query is written that allows us to determine which dogs are ready to start their new lives and where they are located.

A healthy diet comes next. Each animal has unique needs, and ensuring they are met with their necessities to their well-being. The query that developed to calculate total food requirements involves more than just math. It was about giving each animal the proper care and attention, and making sure they were healthy, happy and ready for adoption.

The next query is the environmental conditions that directly affect the lives of the animals. It was important to know which of our accommodations had play areas and which does not have temperature control. This effort was to ensure that our facilities were not just adequate but met the physical and emotional needs of the shelters.

Understanding the adoption schedule was also very important. The faster we can move animals from arrival to adoption, the more lives we can save. The query I did to find out the average length of time between acquiring and rescuing an animal. It helps us to know the period from arrival and adoption time.

Finally, examining organizational structure was about understanding the dynamics between managers and their teams to ensuring that the human resources were very well matched. This was to create a supportive, high-performing environment for staff and enabling them to do their best work for the animals. And each line of SQL isn't just code, It was a stepping stone to a better future for countless animals.