Amruta Niteen Ranade (ANR200001) Individual Project Part II

Dallas Animal Shelter Data Analysis

Requirements

The project purpose is to practice following skills obtained in the class:

1. Analyze raw data and design normalized ERD
2. Design and create physical tables
3. Load data in proper format to the target tables
4. Analyze data and write reports using SQL (no other tools should be used to manipulate data)

Data clean-up and columns considerations

```
/*Query to remove redundant data*/
Delete
FROM intake a
WHERE a.ROWID IN
(SELECT ROWID FROM
  (SELECT
   ROWID,
   ROW_NUMBER() OVER
     (PARTITION BY  animal_id ORDER BY ROWID,intake_date,intake_time desc)
dup
 FROM intake)
 WHERE dup > 1);


/*Splitting of Activity & Impound Number*/
UPDATE PROJECT2_DATA_temp
SET
ACTIVITY_NUMBER_1 = regexp_substr(ACTIVITY_NUMBER, '^[^-]*[^ -]', 1, 1),
ACTIVITY_NUMBER_2 = regexp_substr(ACTIVITY_NUMBER, '[^ -][^-]*$', 1, 1),
IMPOUND_NUMBER_1 = regexp_substr(IMPOUND_NUMBER, '^[^-]*[^ -]', 1, 1),
IMPOUND_NUMBER_2 = regexp_substr(IMPOUND_NUMBER, '[^ -][^-]*$', 1, 1);
```

```
/*Eliminating redundant columns */
alter table PROJECT2_DATA_temp drop column TAG_TYPE;
alter table PROJECT2_DATA_temp drop column ACTIVITY_SEQUENCE;
alter table PROJECT2_DATA_temp drop column INTAKE_TOTAL;
alter table PROJECT2_DATA_temp drop column SERVICE_REQUEST_NUMBER;
alter table PROJECT2_DATA_temp drop column DATE_MONTH;
alter table PROJECT2_DATA_temp drop column DATE_YEAR;
```

Normalization

1. **ERD**
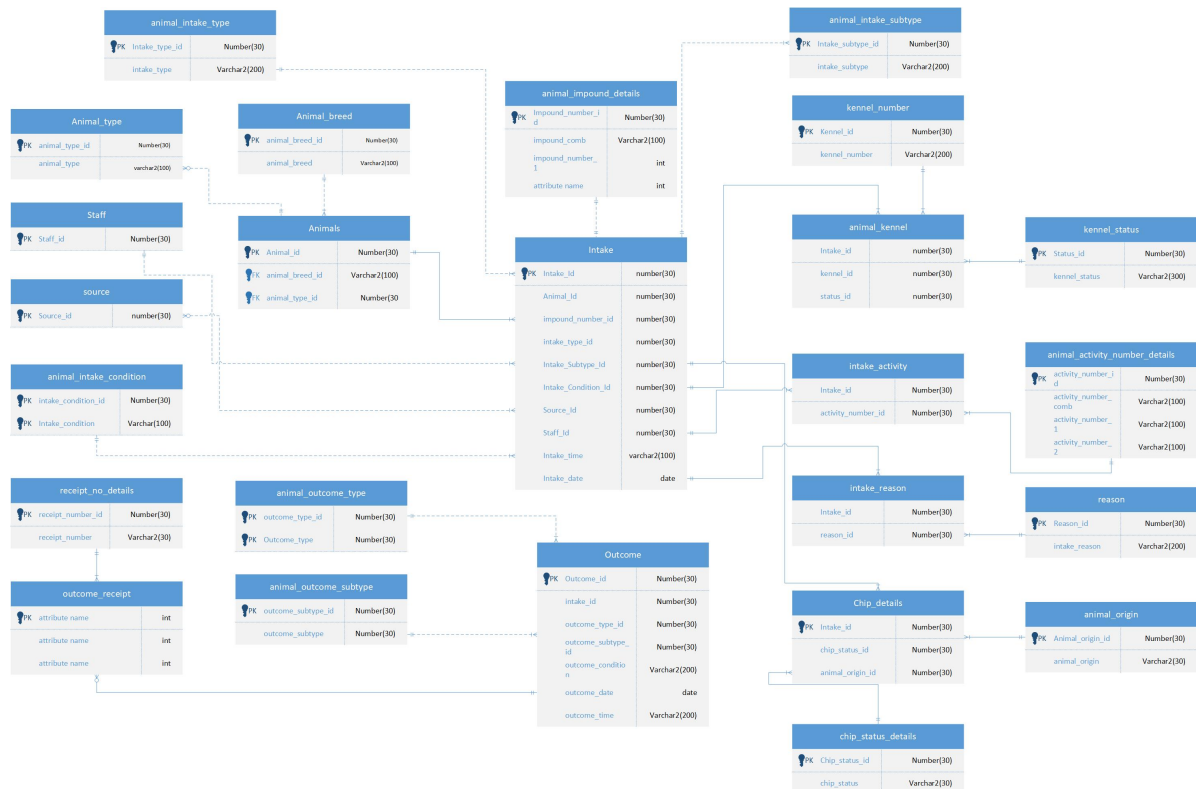
2. SQLs to create and populate tables

```
/*Creating multiple tables to normalize data*/

/*Kennel_number*/
create table kennel_number(
kennel_id number(30) GENERATED ALWAYS as IDENTITY(START with 1 INCREMENT by 1),
kennel_number varchar2(200),
CONSTRAINT kennel_id_pk PRIMARY KEY(kennel_id));

insert into kennel_number(kennel_number)
select distinct(kennel_number) from project2_data_temp;

commit;

/*Kennel_status*/
create table kennel_status(
status_id number(30) GENERATED ALWAYS as IDENTITY(START with 1 INCREMENT by 1),
kennel_status varchar2(200),
CONSTRAINT kennel_status_pk PRIMARY KEY (status_id));
```

```sql
insert into kennel_status(kennel_status)
select distinct(kennel_status) from project2_data_temp;

commit;

/*Impound Number*/
create table animal_impound_details(
impound_number_id number(30) GENERATED ALWAYS as IDENTITY(START with 1 INCREMENT
by 1),
impound_comb varchar2(100),
impound_number_1 varchar2(100),
impound_number_2 varchar2(100),
CONSTRAINT animal_impound_details_pk PRIMARY KEY (impound_number_id));

insert into animal_impound_details
(impound_comb,impound_number_1,impound_number_2)
(select distinct impound_number, impound_number_1, impound_number_2 from
project2_data_temp);

commit;

/*Activity_Number*/
create table animal_activity_number_details(
activity_number_id number(30)   GENERATED ALWAYS as IDENTITY(START with 1
INCREMENT by 1),
activity_number_comb varchar2(100),
activity_number_1 varchar2(100),
activity_number_2 varchar2(100),
animal_activity_number_details_pk PRIMARY KEY (activity_number_id));

insert into animal_activity_number_details
(activity_number_comb,activity_number_1,activity_number_2)
(select activity_number, activity_number_1, activity_number_2 from
project2_data_temp);

commit;

/*Intake_activity*/
create table intake_activity (
intake_id number(30) REFERENCES Intake(intake_id),
activity_number_id number(30) REFERENCES
animal_activity_number_details(activity_number_id)
);

Insert into Intake_Activity (Intake_Id,activity_number_id)
select i.Intake_Id, a.activity_number_id
from  project2_data_temp d
JOIN Intake i ON i.animal_id = d.animal_id
JOIN animal_activity_number_details a ON  a.activity_number_comb =
d.activity_number;

commit;

/*Animal_kennel*/
create table animal_kennel (
status_id number(30) references kennel_status (status_id)
intake_id number(30) REFERENCES Intake(intake_id),
```

```sql
    kennel_id number(30) REFERENCES kennel_number(kennel_id)
);

INSERT INTO Animal_Kennel(Status_Id,Kennel_Id,intake_id)
(SELECT S.Status_Id,K.Kennel_Id,i.intake_id
FROM project2_data_temp dl
JOIN intake i ON i.animal_id = dl.animal_id
JOIN Kennel_Status S ON S.Kennel_Status = dl.Kennel_Status
JOIN Kennel_Number K ON dl.Kennel_Number = K.Kennel_Number);
commit;

/*Animal_type*/
create table animal_type (
animal_type varchar2(100),
animal_type_id number(30) GENERATED ALWAYS as IDENTITY(START with 1 INCREMENT by
1),
CONSTRAINT animal_type_id_pk PRIMARY KEY (animal_type_id)); --6

insert into animal_type(animal_type)
select distinct(animal_type) from project2_data_temp;

commit;

/*Animal_breed*/
create table animal_breed(
animal_breed_id number(30) GENERATED ALWAYS as IDENTITY(START with 1 INCREMENT
by 1),
animal_breed varchar2(100),
CONSTRAINT animal_breed_id_pk PRIMARY KEY (animal_breed_id),
);

insert into animal_breed(animal_breed)
select distinct(animal_breed) from project2_data_temp; --353

commit;

/*Animals*/
create table Animals(
Animal_Id varchar2(100) PRIMARY KEY,
animal_breed_id number(30) REFERENCES animal_Breed(animal_breed_id),
animal_type_id number(30) REFERENCES animal_type (animal_type_id) );

insert into Animals (Animal_Id,animal_breed_id,animal_type_id)
select distinct d.Animal_Id,b.animal_breed_id,a.animal_type_id
from project2_data_temp d, animal_breed b, animal_type a
where b.animal_breed=d.animal_breed
and a.animal_type=d.animal_type;

/*Animal_intake_type*/
create table animal_intake_type(
intake_type_id number(30) GENERATED ALWAYS as IDENTITY(START with 1 INCREMENT by
1),
intake_type varchar2(200),
CONSTRAINT ItypeId_PK PRIMARY KEY (intake_type_id));

insert into animal_intake_type (intake_type)
select distinct intake_subtype from project2_data;
```

```sql
commit;

/*Animal_intake_subtype*/
create table animal_intake_subtype(
intake_subtype_id number(30) GENERATED ALWAYS as IDENTITY(START with 1 INCREMENT
by 1),
intake_subtype varchar2(100),
CONSTRAINT intype_pk PRIMARY KEY (intake_subtype_id)); --51

insert into animal_intake_subtype (intake_subtype)
select distinct intake_subtype from project2_data;

commit;

/*Animal_origin*/
create table animal_origin (
animal_origin varchar2(30),
animal_origin_id number(30) GENERATED ALWAYS as IDENTITY(START with 1 INCREMENT
by 1),
CONSTRAINT animal_origin_id PRIMARY KEY (animal_origin_id));

insert into animal_origin(animal_origin)
select distinct(animal_origin) from project2_data_temp; --10

commit;

/*Chip_status*/
create table chip_status_details (
chip_status varchar2(30),
chip_status_id number(30) GENERATED ALWAYS as IDENTITY(START with 1 INCREMENT by
1),
CONSTRAINT chip_status_id_pk PRIMARY KEY (chip_status_id));

insert into chip_status_details(chip_status)
select distinct(chip_status) from project2_data_temp; --6

commit;

/*Chip_details*/

create table chip_details (
intake_id REFERENCES Intake(intake_id),
chip_status_id REFERENCES chip_status_details(chip_status_id),
animal_origin_id REFERENCES animal_origin(animal_origin_id),
);

insert into chip_and_origin (intake_id,chip_status_id,animal_origin_id)
select i.intake_id, c.chip_status_id,o.animal_origin_id from
final_temp1 t join intake i ON i.animal_id = t.animal_id
join Chip_Status c on c.chip_status=t.chip_status
join animal_origin o on o.animal_origin=t.animal_origin;
commit;

/*Reason*/
create table reason(
reason_id number(30) GENERATED ALWAYS as IDENTITY(START with 1 INCREMENT by 1),
intake_reason varchar2(200),
CONSTRAINT reason_id_pk PRIMARY KEY (reason_id));
```

```sql
insert into reason(intake_reason)
select distinct(reason) from project2_data_temp;

commit;

/*Intake_reason*/
create table intake_reason (
intake_id number(30) REFERENCES Intake(intake_id),
reason_id number(30) REFERENCES reason(reason_id)
);

Insert into Intake_Reason (Intake_Id,Reason_Id)
select i.Intake_Id, r.Reason_Id
from   project2_data_temp d
JOIN Intake i ON d.animal_id = i.animal_id
JOIN Reason r ON d.reason = r.intake_reason;

/*Source*/
create table source (
source_id varchar2(200),
CONSTRAINT source_id_pk PRIMARY KEY (source_id)
);

insert into source (source_id)
select distinct source_id from project2_data_temp;

commit;

/*Staff*/

create table staff_details (
staff_id varchar2(30),
CONSTRAINT staff_details_id_pk PRIMARY KEY (staff_id));

insert into staff_details (staff_id)
select distinct staff_id from project2_data_temp;

commit;

/*Animal_intake_condition*/
create table animal_intake_condition(
intake_condition_id number(30) GENERATED ALWAYS as IDENTITY(START with 1
INCREMENT by 1),
intake_condition varchar2(100),
CONSTRAINT intake_pk PRIMARY KEY (intake_condition_id));

insert into animal_intake_condition(intake_condition)
select distinct(intake_condition) from project2_data_temp;

commit;

/*receipt_number*/
create table receipt_no_details (
receipt_number varchar2(30),
receipt_number_id number(30) GENERATED ALWAYS as IDENTITY(START with 1 INCREMENT
by 1),
CONSTRAINT receipt_number_id_pk PRIMARY KEY (intake_date_time_id));
```

```sql
insert into receipt_no_details(receipt_number)
select distinct(receipt_number) from project2_data_temp;

/*outcome_receipt*/
create table outcome_receipt (
outcome_id number(30) REFERENCES animal_outcome_type(outcome_type_id),
outcome_type_id number(30) REFERENCES animal_outcome_type(outcome_type_id));

insert into outcome_receipt(receipt_number)
select distinct(receipt_number) from project2_data_temp;

/*Animal_outcome_type*/
CREATE TABLE animal_outcome_type(
outcome_type_id NUMBER(30) GENERATED ALWAYS AS IDENTITY(START WITH 1 INCREMENT
BY 1),
outcome_type VARCHAR2(200),
CONSTRAINT outcome_type_id_pk PRIMARY KEY (outcome_type_id));

INSERT INTO animal_outcome_type(outcome_type)
(SELECT DISTINCT(outcome_type) FROM project2_data_temp);

commit;

/*Animal_outcome_subtype*/
CREATE TABLE animal_outcome_subtype(
outcome_subtype_id NUMBER(38) GENERATED ALWAYS as IDENTITY(START with 1
INCREMENT by 1),
outcome_subtype VARCHAR2(200),
CONSTRAINT outcome_subtypeid_pk PRIMARY KEY (outcome_subtype_id));

INSERT INTO animal_outcome_subtype(outcome_subtype)
SELECT DISTINCT(outcome_subtype) FROM project2_data_temp;

/*Animal_outcome_condition*/
CREATE TABLE animal_outcome_condition(
outcome_condition_id NUMBER(38) GENERATED ALWAYS AS IDENTITY(START WITH 1
INCREMENT BY 1),
outcome_condition VARCHAR2(200),
CONSTRAINT outcome_condition_id_pk PRIMARY KEY (outcome_condition_id));

INSERT INTO animal_outcome_condition(outcome_condition)
SELECT DISTINCT(outcome_condition) FROM project2_data_temp;

commit;
```

3. Loading of Intake & Outcome Tables

```sql
/*Intake */
Create table Intake(
Intake_Id number(30) GENERATED ALWAYS as IDENTITY(START with 1 INCREMENT by 1),
Animal_Id varchar2(200) REFERENCES Animals(Animal_Id),
impound_number_id number(30) REFERENCES
animal_impound_details(impound_number_id),
intake_type_id number(30) REFERENCES Animal_Intake_Type(Intake_Type_Id),
```

```sql
Intake_Subtype_Id number(30) REFERENCES
Animal_Intake_Subtype(Intake_Subtype_Id),
Intake_Condition_Id number(30) REFERENCES
Animal_Intake_Condition(Intake_Condition_Id),
Source_Id varchar2(200) REFERENCES Source(SOURCE_ID),
staff_id varchar2(30) REFERENCES staff_details(staff_id),
Intake_date Date,
CONSTRAINT Intake_table_PK PRIMARY KEY (Intake_Id));

Insert into
Intake(Animal_Id,impound_number_id,Intake_Type_Id,Intake_Subtype_Id,Intake_Condi
tion_Id,Source_Id,Staff_Id,Intake_date,Intake_time)
select a.Animal_Id, ai.impound_number_id, a_t.Intake_Type_Id,
a_s.Intake_Subtype_Id, a_c.Intake_Condition_Id,
s.Source_Id,s1.Staff_Id,to_date(SUBSTR(Intake_date, 1,10)
,'MM/DD/YYYY'),intake_time
from project2_data_temp d
join Animals a on d.Animal_Id = a.Animal_Id
join animal_impound_details ai on d.Impound_number = ai.impound_comb
join Animal_Intake_Type a_t on d.Intake_Type = a_t.Intake_Type
join Animal_Intake_Subtype a_s on d.Intake_Subtype = a_s.Intake_Subtype
join Animal_Intake_Condition a_c on d.Intake_Condition = a_c.Intake_Condition
join Source s on d.Source_Id = s.Source_Id
join staff_details s1 on d.Staff_Id = s1.Staff_Id;

commit;

/*Outcome*/
Create table Outcome(
Outcome_Id number(30) GENERATED ALWAYS as IDENTITY(START with 1 INCREMENT by 1),
Intake_id number(30) REFERENCES Intake(intake_id),
Outcome_Type_Id number(30) REFERENCES Animal_Outcome_Type(Outcome_Type_Id),
Outcome_Subtype_Id number(30) REFERENCES
Animal_Outcome_Subtype(Outcome_Subtype_Id),
Outcome_Condition_Id number(30) REFERENCES
Animal_Outcome_Condition(Outcome_Condition_Id),
Outcome_date Date,
Outcome_time varchar2(100),
CONSTRAINT Outcome_PK PRIMARY KEY (Outcome_Id));

INSERT INTO
Outcome(Intake_Id,Outcome_Type_Id,Outcome_Subtype_Id,Outcome_Condition_Id,Outcom
e_date,Outcome_time)
(SELECT i.Intake_Id,t.Outcome_Type_Id, s.Outcome_Subtype_Id,
c.Outcome_Condition_Id,
to_date(SUBSTR(Outcome_date, 1,10) ,'MM/DD/YYYY'),Outcome_time
from project2_data_load d
JOIN Intake i ON d.animal_id = i.animal_id
JOIN Animal_Outcome_Type t on d.Outcome_Type = t.Outcome_Type
JOIN Animal_Outcome_Subtype s on d.Outcome_Subtype = s.Outcome_Subtype
JOIN Animal_Outcome_Condition c on d.Outcome_Condition = c.Outcome_Condition);

commit;
```

Intake Table-

```
select * from intake;
```

> Query Result ×
> SQL | Fetched 50 rows in 0.063 seconds

	INTAKE_ID	ANIMAL_ID	IMPOUND_NUMBER_ID	INTAKE_TYPE_ID	INTAKE_SUBTYPE_ID	INTAKE_CONDITION_ID	SOURCE_ID	STAFF_ID	INTAKE_DATE	INTAKE_TIME
1	135685	A1011038	125809	28	77	23	P0807231	EP	10-OCT-17	14:36:00
2	135686	A1010752	138059	27	97	23	P0000000	ARAMSEY	08-OCT-17	10:43:00
3	135687	A1010751	125941	27	97	23	P0635316	MHENRY	08-OCT-17	10:30:00
4	135688	A1028588	199344	28	77	23	P0837053	BW	11-JUL-19	12:12:00
5	135689	A1018825	174989	28	77	30	P0760187	JO1195	10-JAN-18	11:25:00
6	135690	A1018983	205641	27	97	23	P0000000	MHENRY1709	12-JAN-18	13:41:00
7	135691	A1046637	193337	21	99	23	P0856283	NG	09-DEC-18	07:58:00
8	135692	A1046645	125847	27	97	23	P0856004	MO	17-OCT-18	13:36:00
9	135693	A1047029	211602	27	79	30	P0000000	SR1222	21-OCT-18	12:00:00
10	135694	A1047040	217750	27	97	23	P0856787	IT/IR	21-OCT-18	12:40:00
11	135695	A1016714	131843	28	77	23	P0779990	AH1727	13-DEC-17	18:03:00
12	135696	A1016571	125879	28	77	23	P0815038	RM1702	12-DEC-17	13:34:00
13	135697	A1051968	168906	27	104	23	P9991763	JO1195	13-DEC-18	14:04:00
14	135698	A1051944	162677	24	108	34	P0000000	MH1709	13-DEC-18	12:59:00
15	135699	A1052040	150366	27	97	23	P0000000	JAS1719	14-DEC-18	11:34:00
16	135700	A1051804	138019	27	97	23	P0000000	ASB1579	12-DEC-18	11:01:00
17	135701	A1051807	205559	27	97	23	P0000000	MG 1718	12-DEC-18	10:00:00
18	135702	A1052043	187256	27	97	23	P0000000	MG1718	14-DEC-18	12:09:00
19	135703	A1023355	150348	27	97	23	P0000000	JAS 1719	07-MAR-18	12:55:00
20	135704	A0798380	175044	28	77	23	P0648188	1730/1736	16-MAR-18	07:50:00
21	135705	A1050406	193407	28	77	23	P0824254	SW	29-NOV-18	11:27:00
22	135706	A1050454	168971	27	97	23	P0000000	EP1751	28-NOV-18	19:01:00
23	135707	A1031724	199423	27	79	35	P0836970	MW 1723	31-MAY-18	13:34:00
24	135708	A1031560	138067	23	90	30	P0652329	MC1749	29-MAY-18	23:26:00
25	135709	A1019265	162709	28	77	23	P0819008	BW/JB	16-JAN-18	12:34:00
26	135710	A1050796	168979	27	97	23	P0000000	SC1704	02-DEC-18	13:33:00
27	135711	A1050702	162773	27	104	23	P0745845	DL	01-DEC-18	13:11:00
28	135712	A1050706	181174	27	97	23	P0000000	MG17188	01-DEC-18	13:23:00
29	135713	A0905332	144284	28	77	30	P0707479	RM1702	08-MAY-18	11:58:00
30	135714	A1033321	211714	28	77	23	P0838989	LL	14-JUN-18	00:00:00
31	135715	A1051137	205626	27	97	35	P9999999	DL1763	06-DEC-18	09:13:00

Outcome-

Worksheet   Query Builder

```sql
select * from outcome;
```

Query Result ×

SQL | Fetched 50 rows in 0.045 seconds

	OUTCOME_ID	INTAKE_ID	OUTCOME_TYPE_ID	OUTCOME_SUBTYPE_ID	OUTCOME_CONDITION_ID	OUTCOME_DATE	OUTCOME_TIME
1	187601	190650	29	108	35	21-DEC-17	11:38:00
2	187602	166060	25	130	29	01-MAR-18	13:00:00
3	187603	135243	26	131	35	15-APR-18	14:26:00
4	187604	184470	34	119	27	16-JAN-18	17:35:00
5	187605	196829	28	109	34	06-JUN-18	17:11:00
6	187606	208884	28	122	29	16-JAN-18	15:19:00
7	187607	196834	29	108	22	18-SEP-18	00:00:00
8	187608	166066	34	119	22	05-MAR-18	17:51:00
9	187609	153808	28	152	29	27-FEB-18	13:07:00
10	187610	184480	34	119	22	30-JAN-18	15:00:00
11	187611	196842	28	122	29	06-MAY-18	04:52:00
12	187612	208887	34	119	22	07-AUG-18	13:23:00
13	187613	208890	30	102	22	04-DEC-17	08:26:00
14	187614	202865	30	119	22	23-MAR-18	18:35:00
15	187615	215122	26	131	35	15-APR-18	14:38:00
16	187616	221196	34	119	22	24-JAN-18	17:18:00
17	187617	172288	34	119	22	22-JAN-18	16:41:00
18	187618	159958	28	109	34	28-JUN-18	11:36:00
19	187619	166073	29	108	22	17-AUG-18	18:24:00
20	187620	227361	25	130	29	12-SEP-18	08:40:00
21	187621	184487	29	108	22	25-JAN-18	17:17:00
22	187622	172289	34	119	22	20-DEC-17	18:06:00
23	187623	141408	34	119	35	15-JAN-18	18:16:00
24	187624	147606	30	119	22	19-JAN-18	12:52:00
25	187625	166079	26	131	35	28-MAR-18	15:11:00
26	187626	221202	28	152	29	09-MAY-18	19:35:00
27	187627	215129	28	109	34	08-JUN-18	11:50:00
28	187628	208894	28	101	34	02-OCT-17	18:29:00
29	187629	159965	29	108	35	20-JUN-18	11:38:00
30	187630	215131	34	121	22	20-FEB-18	12:43:00
31	187631	202876	30	119	22	19-OCT-17	10:50:00

Report 1 - Breeds survival report

```sql
SELECT
type,
breed,
breed_survived
|| ''
|| '%' AS percentage,
Total_count As BreedofInterest,
year
FROM
(
SELECT type,breed,year,survived_count,Total_count,breed_survived,RANK() OVER(
PARTITION BY type, year ORDER BY
breed_survived DESC) AS rank
FROM (SELECT t1.animal_type AS type, t1.animal_breed AS breed,t1.year AS year,
t1.survived_count   AS survived_count,
t2.total_count      as Total_count,
round((t1.survived_count / t2.total_count) * 100, 2) AS breed_survived
FROM (SELECT ab.animal_breed_id,at.animal_type   AS animal_type,
ab.animal_breed   AS animal_breed,
```

```sql
  COUNT(an.animal_id) AS survived_count,
  EXTRACT(YEAR FROM aid.intake_date) AS year
FROM animals an,animal_breed ab,animal_type at, intake aid, outcome aod,
animal_outcome_type   aot
WHERE an.animal_id = aid.animal_id
AND an.animal_breed_id = ab.animal_breed_id
AND an.animal_type_id = at.animal_type_id
AND at.animal_type IN (
'CAT',
'DOG'
)
AND to_char(aid.intake_date, 'YYYY') > '2016'
AND aod.intake_id = aid.intake_id
AND aot.outcome_type_id = aod.outcome_type_id
AND aot.outcome_type NOT IN (
'TREATMENT',
'DIED',
'DEAD ON ARRIVAL',
'EUTHANIZED'
)
GROUP BY
ab.animal_breed_id,
at.animal_type,
ab.animal_breed,
EXTRACT(YEAR FROM aid.intake_date)
HAVING COUNT(an.animal_id) > 200) t1,(
SELECT
ab.animal_breed_id,
at.animal_type    AS animal_type,
ab.animal_breed   AS animal_breed,
COUNT(an.animal_id) AS total_count,
EXTRACT(YEAR FROM aid.intake_date) AS year
FROM animals an,animal_breed ab, animal_type at,
intake aid,outcome aod,
animal_outcome_type   aot
WHERE
an.animal_id = aid.animal_id
AND an.animal_breed_id = ab.animal_breed_id
AND an.animal_type_id = at.animal_type_id
AND at.animal_type IN (
'CAT',
'DOG'
)
AND to_char(aid.intake_date, 'YYYY') > '2016'
AND aod.intake_id = aid.intake_id
AND aot.outcome_type_id = aod.outcome_type_id
GROUP BY
ab.animal_breed_id,
at.animal_type,
ab.animal_breed,
EXTRACT(YEAR FROM aid.intake_date)
HAVING
COUNT(an.animal_id) > 200
) t2
WHERE
t1.animal_breed_id = t2.animal_breed_id
AND t1.year = t2.year
ORDER BY t1.year
```

```
)
ORDER BY
rank,
year)
ORDER BY
year,
breed_survived DESC;
```

Report1-snapshot

Report-2- Intake Type Versus Outcome

```
select
intake_type, --1
outcome_type, --2
--COUNT(intake_TYPE) OVER (PARTITION BY intake_TYPE ) AS TOTAL_intake_TYPE, --3
sum(No_Of_Animals) OVER (partition by Animal_type,intake_type ORDER by
intake_type DESC) as TOTAL_intake_type , --3
sum(No_Of_Animals) OVER (partition by Animal_type,outcome_type ORDER by
outcome_type DESC) as TOTAL_Outcome_type , --4
--COUNT(OUTCOME_TYPE) OVER (PARTITION BY OUTCOME_TYPE ) AS TOTAL_OUTCOME_TYPE, -
-4
```

```
No_Of_Animals, --5
round(sum(No_Of_Animals) OVER (partition by Animal_type,intake_type ORDER by
intake_type )/sum(No_Of_Animals) OVER (PARTITION BY ANIMAL_TYPE
)*100,2)||''||'%' as intake_by_total, --6
round(No_Of_Animals/(sum(No_Of_Animals) OVER (partition by
Animal_type,intake_type ORDER by intake_type DESC))*100,2)||''||'%' as
Outcomes_Per_Intake_Type,
round(No_Of_Animals/(sum(No_Of_Animals) OVER (partition by
Animal_type,outcome_type ORDER by outcome_type DESC))*100,2)||''||'%' as
Outcomes_Per_Outcome_Type
from
(
select at.Animal_type, ait.intake_type, aot.Outcome_Type, count(an.animal_id) as
No_Of_Animals
from Animals an, Animal_Breed ab, Animal_Type at, Animal_Intake_Type ait,
intake aid,
Animal_Outcome_Type aot, outcome aod
where an.animal_id = aid.animal_id
and an.animal_breed_id = ab.animal_breed_id
and at.animal_Type_ID=an.animal_Type_ID
and at.Animal_type in ('CAT', 'DOG')
and aod.intake_id = aid.intake_id
and aot.Outcome_Type_Id = aod.Outcome_Type_Id
and ait.Intake_Type_ID = aid.Intake_Type_ID
group by at.Animal_type, ait.intake_type, aot.Outcome_Type
order by at.Animal_type, ait.intake_type, aot.Outcome_Type
);
```

Report2-snapshot

List of normalized tables and counts of records per table

Table	Record Count
Kennel_number	1149
kennel_status	13
animal_impound_details	98156
animal_activity_number_details	42592
intake_activity	57213
animal_kennel	98156
animal_type	6
animal_breed	353
animals	98156
animal_intake_type	9
animal_intake_subtype	51
animal_origin	10
chip_status_details	6
chip_details	93879
reason	79
intake_reason	52920
source	41863
staff_details	2086
animal_intake_condition	17
receipt_no_details	37354
outcome_receipt	37437
animal_outcome_type	14
animal_outcome_subtype	80
animal_outcome_condition	17
Intake	98156
outcome	93156
Report1-query	51
Report2-query	103

Thank You,

Amruta Niteen Ranade

anr200001