# *Database Management I (420-D10-HR)*

# *Happy Valley Kennels Project*

# *Assignment 6 – Test Case Design*

Date assigned: Wednesday, November 9, 2016

Date due: **Wednesday, November 16, 2016**

**Learning Objectives**

After completing this assignment, the student will be able to

* Design test cases for SQL queries

**To be uploaded to Moodle:**

1. The test cases for the queries*.*

**To do:**

| **Task** | **Marks** |
| --- | --- |
| Query 1 | 36 |
| Query 2 | 36 |
| Organization/English | 4 |
| **Total** | **76** |

**Notes**

1. To ensure we’re all starting from the same data, run the SQL script provided with this assignment to populate the HVK database. This will be the database that you will be testing against and running your queries. You will use this for this assignment and the following assignment.
2. This assignment is to generate the test cases ONLY. You do NOT need to write the SQL queries.
3. Create test cases for the queries below. Refer to the class notes on creating test cases. If you need to add or modify data in your tables to meet the requirements of your test cases, do so (but include a SQL file showing your inserts for the test relative to my database). Update this document with your test cases, rename it to ***username*\_D10\_A06\_Test\_Cases** and submit to Moodle.

**Happy Valley Kennels Queries**

1. Test for: Write a query listing all pets with reservations that start on or after Nov. 10, 2016 who are missing vaccinations or whose vaccinations will have expired before the end of the reservation. Your query should include the owner name and phone number, the pet’s name and type (dog or cat), the reservation start and end dates, the vaccination name and whether the vaccination is missing or expired. For expired vaccinations include the expiry date. See the sample query output in appendix B. See Appendix A for required test case documentation.
2. **Identify the data columns**

Owner\_number, owner\_first\_name, owner\_last\_name, owner\_phone, pet\_number, pet\_name, FIND PET TYPE, pet\_res\_number, pet\_pet\_number, res\_reservation\_number, reservation\_number, reservation\_start\_date, reservation\_end\_date, pet\_pet\_number, vacc\_vaccination\_number, vaccination\_expiry\_date, vaccination\_number, vaccination\_name

1. **Identify the tables that contain the data columns**

HVK\_OWNER -> owner\_number, owner\_first\_name, owner\_last\_name, owner\_phone

HVK\_PET -> pet\_name, pet\_number and helps find the pet type

HVK\_RESERVATION -> reservation\_number, reservation\_start\_date, reservation\_end\_date

HVK\_PET\_RESERVATION -> pet\_res\_number, pet\_pet\_number, res\_reservation\_number

HVK\_VACCINATION -> vaccination\_number, vaccination\_name

HVK\_PET\_VACCINATION -> vaccination\_expiry\_date, vacc\_vaccination\_number, pet\_pet\_number

1. **Identify the path through the data model:**

Finding owner information

* 1. Starting point: HVK\_PET
  2. Path: HVK\_PET, HVK\_OWNER
  3. Relationships: many to 1. A pet does not need to have an owner.

Finding vaccination information

1. Starting point: HVK\_PET
2. Path: HVK\_PET, HVK\_PET\_VACCINATION, HVK\_VACCINATION
3. Relationships: 1 to many. A pet can have 0 or more vaccinations.

Many to 1. There are many different vaccinations a pet can have in the pet\_vaccination table

Finding the reservation information

1. Starting point: HVK\_PET
2. Path: HVK\_PET, HVK\_PET\_VACCINATION, HVK\_RESERVATION
3. Relationships: 1 to many. A pet can have 0 or more reservations.

Many to 1. A reservation can contain multiple different pets.

1. **Identify Specifications/Restrictions/Calculations**

Restrictions: A pet’s vaccinations must all expire after the end date of the reservation.

A reservation can have one or more pets.

A reservation can contain both cats and dogs

A pet can have any combination of services for a given reservation.

Calculations: You need to determine if the pet’s vaccinations will expire before the end date of the reservation. To do this you need to calculate that the expiry date > end date

If a pet has multiple reservations, you need to show it per reservation.

Capture your test plan in a table that shows all the tests, input data and expected Result data. Size the table (rows,colums) as you require.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Test Case Condition** | | **Table Data** | | | | | | | **Expected Result** | |
|  | | Pet name | Owner name | Phone | Type | Start date | End date | Vaccination name | Status | Expiration date |
| 1 |  |  |  |  |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |  |  |  |  |

1. Test for: Write a query that lists all the charges for all reservations. Your query should include the reservation number, the owner number, the pet type, the pet’s number and name, the service description, the run number or cat suite (for boarding only), the reservation start and end dates, the service frequency and the daily rate for the service. The service frequency is the frequency for special services if the frequency is non-null. For all other charges, the frequency is the number of days for the reservation. See the sample query output in appendix B. See Appendix A for required test case documentation.
   1. **Identify the data columns**

Reservation\_number, owner\_number, pet\_number, pet\_name, service\_description, run\_run\_number, cs\_cat\_suite\_number, reservation\_start\_date, reservation\_end\_date, service\_frequency, serv\_service\_number, daily\_rate, pet\_pet\_number, pet\_res\_number, res\_reservation\_number, reservation\_number, service\_number

* 1. **Identify the tables that contain the data columns**

HVK\_OWNER -> owner\_number

HVK\_PET -> pet\_number, pet type is derived from here, pet\_name, own\_owner\_number

HVK\_PET\_RESERVATION -> run\_run\_number, cs\_cat\_suite\_number, pet\_pet\_number, pet\_res\_number, res\_reservation\_number

HVK\_PET\_RESERVATION\_SERVICE -> service\_frequency, pet\_res\_number, serv\_service\_number

HVK\_RESERVATION -> reservation\_number, reservation\_start\_date, reservation\_end\_date

HVK\_SERVICE -> service\_description, service\_number

HVK\_DAILY\_RATE -> daily\_rate, serv\_service\_number

* 1. **Identify the path through the data model:**

Finding the reservation information:

* 1. Starting point: HVK\_PET\_RESERVATION
  2. Path: hvk\_pet\_reservation > hvk\_reservation
  3. Relationships: many to 1. Hvk\_pet\_reservation gets part of its primary key from the hvk\_reservation table, so it must have a reservation associated to it.

Finding the pet information

1. Starting point: HVK\_PET\_RESERVATION
2. Path: hvk\_pet\_reservation > hvk\_pet
3. Relationships: Many to 1. Hvk\_pet\_reservation gets part of its primary key from the hvk\_pet table, so it must have a pet associated with it.

Finding the owner information

1. Starting point: HVK\_PET\_RESERVATION
2. Path: hvk\_pet\_reservation > hvk\_pet > hvk\_owner
3. Relationships: Many to 1. Hvk\_pet\_reservation has the pet\_number as part of its primary key, so finding the pet associated with it is easy.

Many to 1. Hvk\_pet has an owner column that has the owner\_id as its value, so it’s easy to find the owner for a given pet from the pet table.

Finding the service information:

1. Starting point: HVK\_PET\_RESERVATION\_SERVICE
2. Path: hvk\_pet\_reservation\_service > pet\_reservation: get the reservation it’s associated to

hvk\_pet\_reservation\_service > hvk\_service: get the services for the reservation

1. Relationships: Many to 1. Hvk\_reservation\_service contains the hvk\_pet\_reservation’s primary key as part of its primary key, so it’s easy to go back to the pet\_reservation

Many to 1. Hvk\_reservation\_service contains the service\_number as one of the columns in the table, so tracing back to the service table is easy.

Finding the rates

1. Starting point: HVK\_DAILY\_RATE
2. Path: hvk\_daily\_rate > hvk\_service
3. Relationships: Many to 1. Hvk\_daily\_rate table has the service\_number as the way to determine what the rate is associated with.
   1. **Identify specifications/restrictions/Calculations**

Capture your test plan in a table that shows all the tests, input data and expected Result data. Size the table (rows,colums) as you require.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Test Case Condition** | | **Table Data** | | | | | | | | | | **Expected Result** | |
|  | | Reservation number | Pet type | Pet number | Pet name | Service description | boarding number | Start date | End date | Service frequency | Daily rate |  |  |
| 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |

Appendix B – Sample output format

**Pets with missing or expired vaccinations** (not all rows are shown, sample data, examine for format)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Pet Owner** | **Phone** | **Pet** | **Type** | **Res Start** | **Res End** | **Vaccination** | **Status** | **Expiry Date** |
| Amanda Linn | (819)555-2233 | Grizzlie | Dog | 15-Feb-15 | 20-Feb-15 | Rabies | Missing |  |
| April Showers | (819)555-8765 | Maggie | Dog | 10-Nov-14 | 12-Nov-14 | Distemper | Missing |  |
| April Showers | (819)555-8765 | Maggie | Dog | 10-Nov-14 | 12-Nov-14 | Hepatitis | Expired | 02-Nov-14 |
| April Showers | (819)555-8765 | Maggie | Dog | 10-Nov-14 | 12-Nov-14 | Parainfluenza | Expired | 21-Nov-13 |
| April Showers | (819)555-8765 | Maggie | Dog | 10-Nov-14 | 12-Nov-14 | Parovirus | Missing |  |
| Barb B. Que | (819)555-4215 | Willie | Dog | 05-Jan-15 | 13-Jan-15 | Bordetella | Expired | 12-Jan-15 |
| Barb B. Que | (819)555-4215 | Willie | Dog | 05-Jan-15 | 13-Jan-15 | Distemper | Expired | 12-Jan-15 |
| Barb B. Que | (819)555-4215 | Willie | Dog | 05-Jan-15 | 13-Jan-15 | Hepatitis | Expired | 12-Jan-15 |
| Barb B. Que | (819)555-4215 | Willie | Dog | 05-Jan-15 | 13-Jan-15 | Parainfluenza | Expired | 12-Jan-15 |
| Chester Drawers | (819)123-4876 | Aurora | Dog | 10-Nov-14 | 12-Nov-14 | Bordetella | Missing |  |
| Chester Drawers | (819)123-4876 | Aurora | Dog | 10-Nov-14 | 12-Nov-14 | Distemper | Missing |  |
| Chester Drawers | (819)123-4876 | Aurora | Dog | 10-Nov-14 | 12-Nov-14 | Hepatitis | Missing |  |
| Chester Drawers | (819)123-4876 | Aurora | Dog | 10-Nov-14 | 12-Nov-14 | Parainfluenza | Missing |  |
| Chester Drawers | (819)123-4876 | Aurora | Dog | 10-Nov-14 | 12-Nov-14 | Parovirus | Missing |  |
| Chester Drawers | (819)123-4876 | Aurora | Dog | 10-Nov-14 | 12-Nov-14 | Rabies | Missing |  |
| Dwight Wong | (819)555-5222 | Logan | Dog | 31-Oct-15 | 12-Nov-15 | Bordetella | Expired | 05-May-15 |
| Dwight Wong | (819)555-5222 | Logan | Dog | 31-Oct-15 | 12-Nov-15 | Distemper | Expired | 05-May-15 |
| Dwight Wong | (819)555-5222 | Logan | Dog | 31-Oct-15 | 12-Nov-15 | Hepatitis | Expired | 05-May-15 |
| Dwight Wong | (819)555-5222 | Logan | Dog | 31-Oct-15 | 12-Nov-15 | Parainfluenza | Expired | 05-May-15 |
| Dwight Wong | (819)555-5222 | Logan | Dog | 31-Oct-15 | 12-Nov-15 | Parovirus | Expired | 05-May-15 |
| Dwight Wong | (819)555-5222 | Max | Cat | 31-Oct-15 | 12-Nov-15 | Calicivirus | Expired | 02-Nov-15 |
| Dwight Wong | (819)555-5222 | Max | Cat | 31-Oct-15 | 12-Nov-15 | Panleukopenia | Expired | 02-Nov-15 |
| Dwight Wong | (819)555-5222 | Max | Cat | 31-Oct-15 | 12-Nov-15 | Rabies | Expired | 02-Nov-15 |
| Dwight Wong | (819)555-5222 | Max | Cat | 31-Oct-15 | 12-Nov-15 | Rhinotracheitis | Expired | 02-Nov-15 |
| Ella Mentary | (819)555-1839 | Poppy | Dog | 15-Jan-15 | 20-Jan-15 | Hepatitis | Missing |  |
| Ella Mentary | (819)555-1839 | Poppy | Dog | 15-Jan-15 | 20-Jan-15 | Parainfluenza | Missing |  |
| ... |  |  |  |  |  |  |  |  |

**Reservation Charges** (not all rows are shown, sample data, examine for format)

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Res**  **Num** | **Owner**  **Num** | **Type** | **Pet**  **Num** | **Pet** | **Service** | **Run/Suite** | **Res Start** | **Res End** | **Frequency** | **Daily\_Rate** |
| 5 | 2 | Cat | 4 | Tess | Boarding | Luxury | 15-Nov-14 | 17-Nov-14 | 2 | 10 |
| 5 | 2 | Cat | 5 | Tripod | Boarding | Luxury | 15-Nov-14 | 17-Nov-14 | 2 | 10 |
| 5 | 2 | Cat | 5 | Tripod | Medication |  | 15-Nov-14 | 17-Nov-14 | 2 | 2 |
| 11 | 5 | Cat | 8 | Chloe | Boarding | Semi-Luxury | 15-Nov-14 | 17-Nov-14 | 2 | 11 |
| 100 | 1 | Dog | 1 | Scrabble | Boarding | Run 29 | 12-Jul-13 | 19-Jul-13 | 7 | 10 |
| 100 | 1 | Dog | 1 | Scrabble | Medication |  | 12-Jul-13 | 19-Jul-13 | 7 | 1 |
| 100 | 1 | Dog | 1 | Scrabble | Walk |  | 12-Jul-13 | 19-Jul-13 | 7 | 2 |
| 100 | 1 | Dog | 2 | Archie | Boarding | Run 29 | 12-Jul-13 | 19-Jul-13 | 7 | 11 |
| 100 | 1 | Dog | 2 | Archie | Walk |  | 12-Jul-13 | 19-Jul-13 | 7 | 3 |
| 102 | 3 | Dog | 13 | Logan | Boarding | Run 28 | 16-Jul-13 | 18-Jul-13 | 2 | 12 |
| 102 | 3 | Dog | 13 | Logan | Walk |  | 16-Jul-13 | 18-Jul-13 | 2 | 4 |
| 103 | 2 | Dog | 6 | Huxley | Boarding | Run 36 | 01-Aug-13 | 05-Sep-13 | 35 | 11 |
| 103 | 2 | Dog | 6 | Huxley | Grooming |  | 01-Aug-13 | 05-Sep-13 | 2 | 3 |
| 103 | 2 | Dog | 6 | Huxley | Playtime |  | 01-Aug-13 | 05-Sep-13 | 35 | 2 |
| … | 6 | Dog | 9 | Parker | Boarding | Run 29 | 15-Aug-13 | 22-Aug-13 | 7 | 11 |
| 137 | 7 | Dog | 12 | Kitoo | Boarding | Run | 31-Oct-14 | 10-Nov-14 | 10 | 12 |
| 138 | 3 | Dog | 13 | Logan | Boarding | Run 21 | 31-Oct-14 | 10-Nov-14 | 10 | 12 |
| 139 | 8 | Dog | 14 | Grizzlie | Boarding | Run 30 | 01-Nov-14 | 10-Nov-14 | 9 | 10 |
| 139 | 8 | Dog | 14 | Grizzlie | Grooming |  | 01-Nov-14 | 10-Nov-14 | 1 | 2 |
| 140 | 15 | Dog | 26 | Skarpa | Boarding | Run 2 | 25-Oct-14 | 10-Nov-14 | 16 | 10 |
| 140 | 15 | Dog | 26 | Skarpa | Grooming |  | 25-Oct-14 | 10-Nov-14 | 2 | 2 |
| 140 | 15 | Dog | 26 | Skarpa | Playtime |  | 25-Oct-14 | 10-Nov-14 | 16 | 2 |
| 140 | 15 | Dog | 26 | Skarpa | Walk |  | 25-Oct-14 | 10-Nov-14 | 16 | 2 |
| 140 | 15 | Dog | 27 | Bothvar | Boarding | Run 1 | 25-Oct-14 | 10-Nov-14 | 16 | 10 |
| 140 | 15 | Dog | 28 | Foxfire | Boarding | Run 2 | 25-Oct-14 | 10-Nov-14 | 16 | 10 |
| ... |  |  |  |  |  |  |  |  |  |  |
| 724 | 4 | Cat | 38 | Noah | Boarding | Luxury | 22-Dec-14 | 03-Jan-15 | 12 | 12 |
| 725 | 2 | Cat | 4 | Tess | Bath |  | 23-Dec-14 | 02-Jan-15 | 1 | 2 |
| 725 | 2 | Cat | 4 | Tess | Boarding | Luxury | 23-Dec-14 | 02-Jan-15 | 10 | 10 |
| 725 | 2 | Cat | 4 | Tess | Medication |  | 23-Dec-14 | 02-Jan-15 | 1 | 2 |
| 725 | 2 | Cat | 5 | Tripod | Boarding | Luxury | 23-Dec-14 | 02-Jan-15 | 10 | 10 |
| 725 | 2 | Cat | 5 | Tripod | Medication |  | 23-Dec-14 | 02-Jan-15 | 1 | 2 |
| ... |  |  |  |  |  |  |  |  |  |  |