COMP 421
Group 11
Project – Part 2

Question 2:

Users

```
        Table "cs421g11.users"
 Column   |         Type          | Modifiers
----------+-----------------------+-----------
 user_id  | integer               | not null
 email    | character varying(150) | not null
 password | character varying(150) | not null
```

Indexes:
   "users_pkey" PRIMARY KEY, btree (user_id)

Referenced by:
   TABLE "activities" CONSTRAINT "activities_manager_user_id_fkey" FOREIGN KEY
(manager_user_id) REFERENCES users(user_id) ON DELETE CASCADE
   TABLE "pages" CONSTRAINT "pages_manager_user_id_fkey" FOREIGN KEY
(manager_user_id) REFERENCES users(user_id) ON DELETE CASCADE

Pages

```
        Table "cs421g11.pages"
   Column      |         Type         |                       Modifiers
---------------+----------------------+--------------------------------------------------------
 page_id       | integer              | not null
 pname         | character varying(100) | not null
 pic_path      | character varying(200) | not null default '/pic/default.png'::character
varying
 description   | text                 |
 manager_user_id | integer            | not null
```

Indexes:
   "pages_pkey" PRIMARY KEY, btree (page_id)

Foreign-key constraints:
   "pages_manager_user_id_fkey" FOREIGN KEY (manager_user_id) REFERENCES
users(user_id) ON DELETE CASCADE

Referenced by:
    TABLE "group_pages" CONSTRAINT "group_pages_page_id_fkey" FOREIGN KEY (page_id)
REFERENCES pages(page_id) ON DELETE CASCADE
    TABLE "interest_pages" CONSTRAINT "interest_pages_page_id_fkey" FOREIGN KEY
(page_id) REFERENCES pages(page_id) ON DELETE CASCADE
    TABLE "pet_pages" CONSTRAINT "pet_pages_page_id_fkey" FOREIGN KEY (page_id)
REFERENCES pages(page_id) ON DELETE CASCADE
    TABLE "polls" CONSTRAINT "polls_creator_fkey" FOREIGN KEY (creator) REFERENCES
pages(page_id) ON DELETE CASCADE
    TABLE "posts" CONSTRAINT "posts_creator_fkey" FOREIGN KEY (creator) REFERENCES
pages(page_id)

Group Pages

```
        Table "cs421g11.group_pages"
   Column     |    Type      |         Modifiers
-------------+-------------+-----------------------------
 page_id     | integer     | not null
 num_members | integer     | not null default 0
 privacy     | character(1) | not null default 'P'::bpchar
```

Indexes:
    "group_pages_pkey" PRIMARY KEY, btree (page_id)

Check constraints:
    "group_pages_privacy_check" CHECK (privacy ~ '^[PG]$'::text)

Foreign-key constraints:
    "group_pages_page_id_fkey" FOREIGN KEY (page_id) REFERENCES pages(page_id) ON
DELETE CASCADE

Referenced by:
    TABLE "pet_in_group" CONSTRAINT "pet_in_group_group_id_fkey" FOREIGN KEY (group_id)
REFERENCES group_pages(page_id)

Interest Pages

```
        Table "cs421g11.interest_pages"
   Column    | Type    |    Modifiers
------------+---------+-------------------
 page_id    | integer | not null
 num_likers | integer | not null default 0
```

Indexes:
    "interest_pages_pkey" PRIMARY KEY, btree (page_id)

Foreign-key constraints:
    "interest_pages_page_id_fkey" FOREIGN KEY (page_id) REFERENCES pages(page_id) ON DELETE CASCADE
Referenced by:
    TABLE "pet_likes_interest" CONSTRAINT "pet_likes_interest_interest_id_fkey" FOREIGN KEY (interest_id) REFERENCES interest_pages(page_id)

Pet Pages

            Table "cs421g11.pet_pages"
Column	Type	Modifiers	Storage	Description
page_id	integer	not null	plain	
species	character varying(100)	not null	extended	
gender	character(1)	not null default 'N'::bpchar	extended	
age	integer		plain	
birthday	date		plain	
Indexes:
    "pet_pages_pkey" PRIMARY KEY, btree (page_id)
Check constraints:
    "pet_pages_age_check" CHECK (age >= 0)
    "pet_pages_gender_check" CHECK (gender ~ '^[MFN]$'::text)
    "pet_pages_page_id_check" CHECK (page_id >= 0)
Foreign-key constraints:
    "pet_pages_page_id_fkey" FOREIGN KEY (page_id) REFERENCES pages(page_id) ON DELETE CASCADE
Referenced by:
    TABLE "pet_friends_with" CONSTRAINT "pet_friends_with_friend_id_fkey" FOREIGN KEY (friend_id) REFERENCES pet_pages(page_id)
    TABLE "pet_friends_with" CONSTRAINT "pet_friends_with_pet_id_fkey" FOREIGN KEY (pet_id) REFERENCES pet_pages(page_id)
    TABLE "pet_in_activity" CONSTRAINT "pet_in_activity_pet_id_fkey" FOREIGN KEY (pet_id) REFERENCES pet_pages(page_id)
    TABLE "pet_in_group" CONSTRAINT "pet_in_group_pet_id_fkey" FOREIGN KEY (pet_id) REFERENCES pet_pages(page_id)
    TABLE "pet_likes_interest" CONSTRAINT "pet_likes_interest_pet_id_fkey" FOREIGN KEY (pet_id) REFERENCES pet_pages(page_id)
    TABLE "pet_poll_response" CONSTRAINT "pet_poll_response_pet_id_fkey" FOREIGN KEY (pet_id) REFERENCES pet_pages(page_id)
Has OIDs: no

Posts

```
        Table "cs421g11.posts"
    Column     |          Type          |                        Modifiers
---------------+------------------------+----------------------------------------------------
 post_id       | integer                | not null
 content_path  | character varying(200) | not null default '/post/default.txt'::character varying
 time_stamp    | timestamp without time zone | not null default now()
 creator       | integer                | not null
 parent_post_id | integer               |
```

Indexes:
   "posts_pkey" PRIMARY KEY, btree (post_id)

Foreign-key constraints:
   "posts_creator_fkey" FOREIGN KEY (creator) REFERENCES pages(page_id)
   "posts_parent_post_id_fkey" FOREIGN KEY (parent_post_id) REFERENCES posts(post_id)

Referenced by:
   TABLE "posts" CONSTRAINT "posts_parent_post_id_fkey" FOREIGN KEY (parent_post_id)
REFERENCES posts(post_id)

Activities

```
        Table "cs421g11.activities"
    Column      |          Type          |                Modifiers
----------------+------------------------+----------------------------------------
 activity_id    | integer                | not null
 a_name         | character varying(150) | not null default ''::character varying
 a_date         | date                   |
 a_time         | time without time zone |
 visibility     | character(1)           | not null default 'P'::bpchar
 description    | text                   |
 manager_user_id | integer               | not null
```

Indexes:
   "activities_pkey" PRIMARY KEY, btree (activity_id)

Check constraints:
   "activities_visibility_check" CHECK (visibility ~ '^[PI]$'::text)

Foreign-key constraints:
   "activities_manager_user_id_fkey" FOREIGN KEY (manager_user_id) REFERENCES
users(user_id) ON DELETE CASCADE

Referenced by:
   TABLE "pet_in_activity" CONSTRAINT "pet_in_activity_activity_id_fkey" FOREIGN KEY

(activity_id) REFERENCES activities(activity_id)

Polls

```
        Table "cs421g11.polls"
    Column     |  Type   | Modifiers
---------------+---------+-----------
 poll_id       | integer | not null
 creator       | integer | not null
 question_text | text    | not null
```

Indexes:
    "polls_pkey" PRIMARY KEY, btree (poll_id)

Foreign-key constraints:
    "polls_creator_fkey" FOREIGN KEY (creator) REFERENCES pages(page_id) ON DELETE CASCADE

Referenced by:
    TABLE "responses" CONSTRAINT "responses_poll_id_fkey" FOREIGN KEY (poll_id) REFERENCES polls(poll_id) ON DELETE CASCADE

Responses

```
        Table "cs421g11.responses"
    Column     |  Type   |    Modifiers
---------------+---------+--------------------
 response_id   | integer | not null
 response_text | text    | not null
 num_votes     | integer | not null default 0
 poll_id       | integer | not null
```

Indexes:
    "responses_pkey" PRIMARY KEY, btree (response_id)

Foreign-key constraints:
    "responses_poll_id_fkey" FOREIGN KEY (poll_id) REFERENCES polls(poll_id) ON DELETE CASCADE

Referenced by:
    TABLE "pet_poll_response" CONSTRAINT "pet_poll_response_response_id_fkey" FOREIGN KEY (response_id) REFERENCES responses(response_id)

Pet Friends With

```
      Table "cs421g11.pet_friends_with"
 Column  |  Type   | Modifiers
---------+---------+-----------
 pet_id  | integer | not null
```

friend_id | integer | not null
Foreign-key constraints:
   "pet_friends_with_friend_id_fkey" FOREIGN KEY (friend_id) REFERENCES
pet_pages(page_id)
   "pet_friends_with_pet_id_fkey" FOREIGN KEY (pet_id) REFERENCES pet_pages(page_id)

Pet In Group

          Table "cs421g11.pet_in_group"
 Column | Type | Modifiers
----------+---------+-----------
 pet_id | integer | not null
 group_id | integer | not null

Foreign-key constraints:
   "pet_in_group_group_id_fkey" FOREIGN KEY (group_id) REFERENCES
group_pages(page_id)
   "pet_in_group_pet_id_fkey" FOREIGN KEY (pet_id) REFERENCES pet_pages(page_id)

Pet Likes Interest

          Table "cs421g11.pet_likes_interest"
  Column | Type | Modifiers
-------------+---------+-----------
 pet_id | integer | not null
 interest_id | integer | not null

Foreign-key constraints:
   "pet_likes_interest_interest_id_fkey" FOREIGN KEY (interest_id) REFERENCES
interest_pages(page_id)
   "pet_likes_interest_pet_id_fkey" FOREIGN KEY (pet_id) REFERENCES pet_pages(page_id)

Pet In Activity

          Table "cs421g11.pet_in_activity"
  Column | Type | Modifiers
-------------+---------+-----------
 pet_id | integer | not null
 activity_id | integer | not null

Foreign-key constraints:
   "pet_in_activity_activity_id_fkey" FOREIGN KEY (activity_id) REFERENCES
activities(activity_id)
   "pet_in_activity_pet_id_fkey" FOREIGN KEY (pet_id) REFERENCES pet_pages(page_id)

Pet Poll Response

```
        Table "cs421g11.pet_poll_response"
  Column    |            Type          |      Modifiers
------------+--------------------------+----------------------
 pet_id     | integer                  | not null
 response_id | integer                 | not null
 time_stamp  | timestamp without time zone | not null default now()
```

Foreign-key constraints:
   "pet_poll_response_pet_id_fkey" FOREIGN KEY (pet_id) REFERENCES pet_pages(page_id)
   "pet_poll_response_response_id_fkey" FOREIGN KEY (response_id) REFERENCES
responses(response_id)

Question 3:

Output from INSERT statements being executed

INSERT 0 1
INSERT 0 1
INSERT 0 1
INSERT 0 1
INSERT 0 1

Output from SELECT statements

*SELECT * FROM users*

```
 user_id |              email            |      password
---------+-------------------------------+----------------------
     1 | furrymachine@gmail.com          | woofwoof123
     2 | phil@yahoo.com                  | password
     3 | australia@outbackgrill.com      | icantrememberthis321
     4 | ihateinsertstatements@everyone.com | whyyyyyyY
     5 | cat@daddy.com                   | purrrfect
(5 rows)
```

Question 4:

Output from SELECT * FROM relationname command:

Users

```
user_id |              email              |      password
---------+---------------------------------+----------------------
      1 | furrymachine@gmail.com          | woofwoof123
      2 | phil@yahoo.com                  | password
      3 | australia@outbackgrill.com      | icantrememberthis321
      4 | ihateinsertstatements@everyone.com | whyyyyyyY
      5 | cat@daddy.com                   | purrrfect
```

Pages

```
page_id |        pname        |    pic_path    |        description        | manager_user_id
---------+---------------------+----------------+---------------------------+----------------
      1 | Max                 | /pic/default.png | The best dog ever         |        1
      2 | Sam                 | /pic/default.png | The worst dog ever        |        1
      3 | Tim                 | /pic/default.png | Everyone should have fish  |         2
      4 | Kit                 | /pic/default.png | My fish will kill you      |       2
      5 | Kat                 | /pic/default.png | Cats are the best          |        3
      6 | Jim                 | /pic/default.png | Fat cat                   |       3
      7 | Ric                 | /pic/default.png | Max is my best friend      |        4
      8 | Rex                 | /pic/default.png | I <3 catnip               |       4
      9 | Wot                 | /pic/default.png | I am turtle I am slow      |         5
     10 | Mat                 | /pic/default.png |                           |      5
```

Group Pages

```
page_id | num_members | privacy
---------+-------------+---------
     13 |           0 | P
     14 |           0 | G
     15 |           0 | G
```

Interest Pages

```
page_id | num_likers
---------+------------
     16 |          0
     17 |          0
     18 |          0
```

Pet Pages

```
page_id | species | gender | age |  birthday
--------+---------+--------+-----+-----------
      1 | Dog     | M      |  1  | 2014-02-15
      2 | Dog     | F      |  7  |
      3 | Fish    | M      |  1  |
      4 | Fish    | F      |  1  | 2013-11-02
      5 | Cat     | F      |  1  |
      6 | Cat     | N      |  6  |
      7 | Dog     | M      |  1  |
      8 | Cat     | F      |  1  |
      9 | Turtle  | M      |  2  | 2013-03-09
     10 | Cat     | F      |  1  | 2013-09-14
     11 | Pig     | M      |  1  | 2014-01-30
```

Posts

```
post_id |   content_path   |     time_stamp      | creator | parent_post_id
--------+------------------+---------------------+---------+---------------
      1 | /post/default.txt | 2015-01-05 15:32:00 |    1    |
      2 | /post/default.txt | 2015-01-05 15:55:00 |    1    |       1
      3 | /post/default.txt | 2015-01-06 09:32:00 |    2    |
      4 | /post/default.txt | 2015-01-08 15:22:00 |    6    |       1
      5 | /post/default.txt | 2015-01-15 12:32:00 |   13    |
      6 | /post/default.txt | 2015-01-17 07:11:00 |   13    |       2
      7 | /post/default.txt | 2015-01-19 15:32:00 |   18    |
      8 | /post/default.txt | 2015-01-21 15:32:00 |   18    |
      9 | /post/default.txt | 2015-01-21 15:33:00 |   12    |       6
     10 | /post/default.txt | 2015-01-21 21:10:00 |   17    |       6
```

Activities

```
activity_id |   a_name     |  a_date   | a_time  | visibility |   description                | manager_user_id
------------+--------------+-----------+---------+-----------+
          1 | Go to dog park | 2015-02-21 | 10:00:00 | P        | Max and friends go park   |        1
          2 | Cat meeting    | 2015-03-01 | 21:00:00 | I        | Secret Australian ILLUMINATI cats meet to plot plan to
conquer SPACE THE FINAL FRONTIER |       3
```

Polls

```
poll_id | creator |              question_text
--------+---------+------------------------------------------------------
      1 |    1    | Is Max a good boy?
      2 |   12    | Who is your favourite character on House of Cards?
```

Responses

response_id	response_text	num_votes	poll_id
1	Yes	0	1
2	No	0	1
3	Frank Underwood	0	2
4	Claire Underwood	0	2
5	Edward Meechum	0	2

Pet Friends With

pet_id	friend_id
1	2
1	3
2	3
2	7
3	7
3	4
7	4
7	10
8	2
8	3
9	7
9	11
9	12
10	2

Pet In Group

pet_id	group_id
1	13
1	15
2	13
3	15
5	14
6	14
7	13
8	14
9	15
10	14
12	15

Pet Likes Interest

```
pet_id | interest_id
--------+-------------
     1 |          17
     2 |          17
     3 |          18
     4 |          18
     5 |          18
     6 |          16
     7 |          18
     7 |          16
     7 |          17
     8 |          18
     9 |          16
    10 |          16
    10 |          18
```

Pet In Activity

```
pet_id | activity_id
--------+-------------
     1 |           1
     2 |           1
     3 |           1
     3 |           2
     5 |           2
     6 |           2
     7 |           1
     8 |           2
     9 |           2
    10 |           2
    12 |           2
```

Pet Poll Response

```
pet_id | response_id |           time_stamp
--------+-------------+----------------------------
     1 |           1 | 2015-03-09 01:10:00.689077
     2 |           1 | 2015-03-09 01:10:00.689077
     3 |           3 | 2015-03-09 01:10:00.689077
     4 |           3 | 2015-03-09 01:10:00.689077
     5 |           2 | 2015-03-09 01:10:00.689077
     6 |           2 | 2015-03-09 01:10:00.689077
     6 |           3 | 2015-03-09 01:10:00.689077
     7 |           1 | 2015-03-09 01:10:00.689077
     8 |           1 | 2015-03-09 01:10:00.689077
     8 |           4 | 2015-03-09 01:10:00.689077
     9 |           4 | 2015-03-09 01:10:00.689077
    10 |           2 | 2015-03-09 01:10:00.689077
    11 |           1 | 2015-03-09 01:10:00.689077
```

Question 5:

-All create statements can be found in q2schema.sql

Output

```
 post_id | creator |      pname       |      description      | manager_user_id
---------+---------+-----------------+-----------------------+-----------------
     1 |       1 | Max             | The best dog ever     |             1
     2 |       1 | Max             | The best dog ever     |             1
     3 |       2 | Sam             | The worst dog ever    |             1
     4 |       6 | Jim             | Fat cat               |        3
     5 |      13 | Dogs@McGill     |                       |         5
     6 |      13 | Dogs@McGill     |                       |         5
     7 |      18 | Watching People |                       |          6
     8 |      18 | Watching People |                       |          6
     9 |      12 | Cashew          | I hate the FBI        |         5
    10 |      17 | Frisbee         |                       |        6
    11 |      12 | Cashew          | I hate the FBI        |         5
    12 |       7 | Ric             | Max is my best friend |          4
(12 rows)
```

```
 page_id | species | gender | age |  birthday
---------+---------+--------+-----+------------
     1 | Dog     | M      |   1 | 2014-02-15
     2 | Dog     | F      |   7 |
     3 | Fish    | M      |   1 |
     5 | Cat     | F      |   1 |
     6 | Cat     | N      |   6 |
     7 | Dog     | M      |   1 |
     8 | Cat     | F      |   1 |
     9 | Turtle  | M      |   2 | 2013-03-09
    10 | Cat     | F      |   1 | 2013-09-14
    12 | Gerbil  | M      |   3 |
(10 rows)
```

```
                question_text                 | response_text   | num_votes
----------------------------------------------+-----------------+-----------
 Is Max a good boy?                           | Yes             |        15
 Is Max a good boy?                           | No              |        22
 Who is your favourite character on House of Cards? | Frank Underwood  |       41
 Who is your favourite character on House of Cards? | Claire Underwood |       15
 Who is your favourite character on House of Cards? | Edward Meechum   |       55
(5 rows)
```

```
 page_id | species | gender | age |  birthday  | pet_id | friend_id
---------+---------+--------+-----+------------+--------+-----------
     8 | Cat     | F      |   1 |            |      8 |         3
     9 | Turtle  | M      |   2 | 2013-03-09 |      9 |        12
     3 | Fish    | M      |   1 |            |      3 |         4
    11 | Pig     | M      |   1 | 2014-01-30 |     11 |         5
     1 | Dog     | M      |   1 | 2014-02-15 |      1 |         3
     2 | Dog     | F      |   7 |            |      2 |         7
     7 | Dog     | M      |   1 |            |      7 |        10
    11 | Pig     | M      |   1 | 2014-01-30 |     11 |        12
     9 | Turtle  | M      |   2 | 2013-03-09 |      9 |         7
```

```
   11 | Pig    | M    |  1 | 2014-01-30 |    11 |       4
    2 | Dog    | F    |  7 |            |     2 |       3
    7 | Dog    | M    |  1 |            |     7 |       4
    9 | Turtle | M    |  2 | 2013-03-09 |     9 |      11
    3 | Fish   | M    |  1 |            |     3 |       7
    8 | Cat    | F    |  1 |            |     8 |       2
   10 | Cat    | F    |  1 | 2013-09-14 |    10 |       2
   10 | Cat    | F    |  1 | 2013-09-14 |    10 |       5
    1 | Dog    | M    |  1 | 2014-02-15 |     1 |       2
(18 rows)
```

```
page_id | num_likers | pet_id | interest_id | page_id | species | gender | age |  birthday
--------+------------+--------+-------------+---------+---------+--------+-----+------------
     17 |          0 |     11 |          17 |      11 | Pig     | M      |   1 | 2014-01-30
     16 |          0 |     12 |          16 |      12 | Gerbil  | M      |   3 |
     16 |          0 |      7 |          16 |       7 | Dog     | M      |   1 |
     16 |          0 |     10 |          16 |      10 | Cat     | F      |   1 | 2013-09-14
     16 |          0 |      9 |          16 |       9 | Turtle  | M      |   2 | 2013-03-09
     16 |          0 |      6 |          16 |       6 | Cat     | N      |   6 |
     18 |          0 |      8 |          18 |       8 | Cat     | F      |   1 |
     18 |          0 |      4 |          18 |       4 | Fish    | F      |   1 | 2013-11-02
     17 |          0 |      1 |          17 |       1 | Dog     | M      |   1 | 2014-02-15
     18 |          0 |     10 |          18 |      10 | Cat     | F      |   1 | 2013-09-14
     18 |          0 |      5 |          18 |       5 | Cat     | F      |   1 |
     18 |          0 |      7 |          18 |       7 | Dog     | M      |   1 |
     17 |          0 |      7 |          17 |       7 | Dog     | M      |   1 |
     17 |          0 |      2 |          17 |       2 | Dog     | F      |   7 |
     18 |          0 |      3 |          18 |       3 | Fish    | M      |   1 |
     16 |          0 |     11 |          16 |      11 | Pig     | M      |   1 | 2014-01-30
```

Returns all the posts made by a given page
SELECT posts.post_id, posts.creator, pages.pname, pages.description, pages.manager_user_id
FROM posts, pages
WHERE posts.creator = pages.page_id;

Returns all pets who are in some sort of activity
SELECT *
FROM pet_pages
WHERE pet_pages.page_id
IN (SELECT pet_in_activity.pet_id
        FROM pet_in_activity);

Returns the popular responses amoungst users
SELECT TEMP.question_text, TEMP.response_text, TEMP.num_votes
FROM (SELECT *
        FROM polls
        JOIN responses
        ON polls.poll_id = responses.poll_id) AS TEMP
WHERE TEMP.num_votes >= 10;

Lists everyone and their friends
SELECT DISTINCT *
FROM pet_pages
JOIN pet_friends_with
ON pet_pages.page_id = pet_friends_with.pet_id;

Lists all interests of each pet
```
SELECT DISTINCT *
FROM interest_pages, pet_likes_interest, pet_pages
WHERE interest_pages.page_id = pet_likes_interest.interest_id AND pet_pages.page_id =
pet_likes_interest.pet_id;
```

Question 6:

Response from the system
```
UPDATE 0
DELETE 0
DELETE 64
psql:q6modifications.sql:19: ERROR:  update or delete on table "pages" violates foreign key constraint
"posts_creat or_fkey" on table "posts"
DETAIL:  Key (page_id)=(17) is still referenced from table "posts".
UPDATE 0
DELETE 0
DELETE 20
DELETE 0
DELETE 4
DELETE 4
DELETE 1
psql:q6modifications.sql:31: ERROR:  update or delete on table "posts" violates foreign key constraint
"posts_paren t_post_id_fkey" on table "posts"
DETAIL:  Key (post_id)=(6) is still referenced from table "posts".
psql:q6modifications.sql:32: ERROR:  update or delete on table "pages" violates foreign key constraint
"posts_creat or_fkey" on table "posts"
DETAIL:  Key (page_id)=(2) is still referenced from table "posts".
psql:q6modifications.sql:36: ERROR:  column "city" of relation "pages" already exists
UPDATE 9
UPDATE 9
UPDATE 8
```

--alteration: for all pets with birthdays today, increment age by 1.
```
UPDATE pet_pages SET age = age + 1
      WHERE birthday = current_date;
```

--alteration: for all pets who answered yes to this poll, make a post saying so.

--alteration: delete a pet, and then decrement all pages that they liked.
```
UPDATE interest_pages ip SET num_likers = num_likers - 1
      FROM pet_likes_interest pli
      WHERE pli.pet_id = 02 AND pli.interest_id = ip.page_id;
DELETE FROM pages WHERE page_id = 02;
```

--alteration: add a "City" field to the pages table, and make it NULL-able. Add some values.
```
ALTER TABLE pages
      ADD COLUMN city varchar(20) NULL;
UPDATE pages SET city = 'Montreal'
      WHERE page_id % 3 = 2;
UPDATE pages SET city = 'Verdun'
```

```
        WHERE page_id % 3 = 1;
UPDATE pages SET city = 'Westmount'
        WHERE page_id % 3 = 0;
```

Question 7:

Response from the system
CREATE VIEW
CREATE VIEW

Pets interested in frisbee
CREATE VIEW FrisbeeFans AS
SELECT PA.page_id, PA.pname, PP.species, PP.age FROM pages PA, pet_pages PP, pet_likes_interest I
WHERE PP.page_id = I.pet_id AND PA.page_id = I.pet_id AND I.interest_id = 17;

Shows number of friends per pet
CREATE VIEW NumberOfFriends AS
SELECT DISTINCT pages.page_id, pages.pname, pet_pages.species, pet_pages.age, COUNT(*) AS friends FROM
pages, pet_pages, pet_friends_with
WHERE pages.page_id = pet_pages.page_id AND pages.page_id = pet_friends_with.pet_id OR pages.page_id =
pet_friends_with.friend_id
GROUP BY pages.page_id, pages.pname, pet_pages.species, pet_pages.age;

--Selects pets interested in frisbee older than 1 year old
SELECT DISTINCT pages.pname, pet_pages.species, pet_pages.age
FROM pages, pet_pages, FrisbeeFans
WHERE pet_pages.age > 1;

--Selects dogs with more than 5 friends
SELECT DISTINCT pages.pname, pet_pages.age
FROM pages, pet_pages, NumberOfFriends
WHERE pet_pages.species = 'Dog';

Output from select statements

```
 pname | species | age
-------+---------+-----
(0 rows)


            pname             | age
------------------------------------+-----
 apple                        |   1
 Whatever                     |   7
 People                       |   7
 Pig                          |   7
 Kat                          |   7
 Associated Soccerballers of Swaziland |   1
 Wot                          |   7
 Rex                          |   7
 Frisbee                      |   7
 Dogs@McGill                  |   1
 Tim                          |   7
```

```
Sam                      |   1
3AM DB party               |   7
Cashew                    |   7
Cats@McGill                |   1
Jim                      |   1
The best frisbee team        |   7
Kit                      |   1
```

Question 8:

The schema created for Question 2 was updated with the various NOT NULL and CHECK statements.

Output from INSERTS that violated constraints(a few are shown as an example):

INSERT INTO users VALUES (-1, 'hello', 'world');

psql:q2schema.sql:102: ERROR: insert or update on table "pet_in_activity" violates foreign key constraint "pet_in_activity_pet_id_fkey"

UPDATE users SET email = NULL WHERE user_id = 1;

psql:q2schema.sql:100: ERROR: null value in column "email" violates not-null constraint