A6: Indexes, triggers, user functions and population

1. Database workload

A study of the predicted system load (database load), organized in subsections

1.1. Tuple Estimation

Relation Reference	Relation Name	Order of magnitude	Estimated growth
R01	user	tens	Units per day
R02	event	tens	Units per day
R03	location	tens	Units per day
R04	image	tens	Units per day
R05	city	tens	Units per day
R06	country	tens	Units per day
R07	post	hundreds	Dozens per day
R08	poll	tens	Units per day
R09	option	tens	Units per day
R10	friendRequest	hundreds	Dozens per day
R11	friendActivity	hundreds	Dozens per day
R12	eventInvite	hundreds	Dozens per day
R13	owner	tens	Units per day
R14	participant	tens	Units per day
R15	done	tens	Units per day
R16	notDone	tens	Units per day
R17	admin	units	No growth
R18	friendship	tens	Units per day
R19	eventWarning	tens	Tens per day
R20	currentDate	units	Hundreds per day

1.2. Most frequent queries

Querie reference	SELECT01
Querie description	User's information
Querie frequency	Hundreds per day

```
SELECT username, last_name, first_name, email, image_path, city_id
  FROM users
  WHERE users.id = $user_id;
```

Querie reference	SELECT02
Querie description	Event’s information
Querie frequency	Hundreds per day

```
SELECT events.id, events.name, events.category, events.image_id, events.description,
events."date" users.username
  FROM events, users
  WHERE events.owner_id = users.id AND events.id = $event_id;

SELECT posts.description, posts.id, posts.image_id, posts.user_id
  FROM posts,events
  WHERE posts.event_id = $event_id;

SELECT users.username, users.image_path
  FROM participants
  WHERE users.id = participants.user_id AND participants.event_id=$event_id;
```

Querie reference	SELECT03
Querie description	Search event
Querie frequency	Hundreds per day

```
SELECT id, "name", image_id, "date", localization, category
FROM events
  WHERE "name" LIKE %$search% OR localization LIKE %$search% AND event_type = 'public'
  ORDER BY "name";
```

Querie reference	SELECT04
Querie description	Search user
Querie frequency	Hundreds per day

```
SELECT username, email, image_path
  FROM users
  WHERE username LIKE %$search% OR email LIKE %$search%
ORDER BY username;
```

Querie reference	SELECT05
Querie description	Search category
Querie frequency	Hundreds per day

```
SELECT id, "name", image_id, "date", localization, category
FROM events
  WHERE "name" LIKE %$search% OR localization LIKE %$search% AND event_type = 'public'
AND events.category LIKE %$categories%
  ORDER BY "name";
```

Querie reference	SELECT06
Querie description	User’s notifications
Querie frequency	Hundreds per day

```
SELECT sender_id
  FROM friend_requests
  WHERE receiver_id = $user_id

SELECT sender_id, event_id
  FROM friend_activities
  WHERE receiver_id = $user_id

SELECT owner_id, event_id
  FROM event_invites
  WHERE receiver_id = $user_id

SELECT event_id, "message"
  FROM event_warnings
  WHERE receiver_id = $user_id
```

Querie reference	SELECT07
Querie description	Search category
Querie frequency	Hundreds per day

```
SELECT id, "name", image_id, "date", localization, category
FROM events
  WHERE "name" LIKE %$search% OR localization LIKE %$search% AND event_type = 'public'
AND events.category LIKE %$categories%
  ORDER BY "name";
```

Querie reference	SELECT08
Querie description	User's events
Querie frequency	Hundreds per day

```
SELECT event_id
  FROM participants
  WHERE user_id = $user_id

SELECT event_id
  FROM owners
  WHERE user_id = $user_id
```

Querie reference	SELECT09
Querie description	User's friends
Querie frequency	Hundreds per day

```
SELECT event_id
  FROM participants
  WHERE user_id = $user_id

SELECT event_id
  FROM owners
  WHERE user_id = $user_id
```

Querie reference	SELECT010
Querie description	Who can be invited to the event
Querie frequency	Hundreds per day

```
SELECT users.username
  FROM users, events
  WHERE users.id!= event.owner_id AND users.id  NOT IN (
    SELECT user_id
    FROM participants
    WHERE user_id IS NOT NULL AND participants.event_id=$event_id) ;
```

Querie reference	SELECT11
Querie description	Rating of a past event
Querie frequency	Hundreds per day

```
SELECT AVG(rating)
  FROM dones
  WHERE dones.event_id= $event_id;
```

1.3. Most frequent modifications

Querie reference	UPDATE01
Querie description	Update users information
Querie frequency	Hundreds per month

```
UPDATE "users"
SET password = $password,
    email = #email,
    first_name = $first_name,
    last_name = $last_name,
    image_path = $image_path,
    city_id = $city_id
WHERE id = $id;
```

Querie reference	UPDATE02
Querie description	Update events information
Querie frequency	Hundreds per month

```
UPDATE events
SET name = $name,
    date = $date,
    description = $description,
    localization_id = $localization_id,
    image_id = $image_id,
    event_type = $event_type,
    category = $category
WHERE id = $id;
```

Querie reference	UPDATE03
Querie description	Update dones rating
Querie frequency	Tens per month

```
UPDATE dones
SET rating = $rating
WHERE event_id = $event_id;
```

Querie reference	UPDATE04
Querie description	Update options description
Querie frequency	Tens per month

```
UPDATE options
SET description = $description
WHERE id = $id;
```

Querie reference	UPDATE05
Querie description	Update posts information
Querie frequency	Hundreds per month

```
UPDATE posts
SET description = $description.
    date = $date,
    image_id = $image_id
WHERE id = $id;
```

Querie reference	UPDATE06
Querie description	Update current_date
Querie frequency	Thousands per month

```
UPDATE current_date
SET date = $date
WHERE id = $id;
```

Querie reference	INSERT01
Querie description	Regist new user
Querie frequency	Tens per month

```
INSERT INTO users
(id,username,password,email,regist_date,first_name,last_name,
image_path,city_id)
            VALUES
($id,$username,$password,$email,$regist_date,$first_name,$last_name,
$image_path,$city_id);
```

Querie reference	INSERT02
Querie description	Create new event
Querie frequency	Tens per month

```
INSERT INTO events
(id,name,date,description,owner_id,localization_id,image_id,type,catego
ry) VALUES
($id,$name,$date,$description,$owner_id,$localization_id,$image_id,
$type,$category);
```

Querie reference	INSERT03
Querie description	Create new post
Querie frequency	Tens per month

```
INSERT INTO posts (id,description,date,event_id, user_id, image_id)
VALUES ($id,$description,$date,$event_id, $user_id, $image_id);
```

Querie reference	INSERT04
Querie description	Create new event done
Querie frequency	Tens per month

```
INSERT INTO dones (event_id,rating)
            VALUES ($event, $rating);
```

Querie reference	INSERT05
Querie description	Create new event not_done
Querie frequency	Tens per month

```
INSERT INTO dones (event_id)
            VALUES ($event);
```

Querie reference	INSERT06
Querie description	Create new participant
Querie frequency	Tens per month

```
INSERT INTO participants (id,user_id,event_id)
            VALUES ($id,$user_id,$event_id);
```

Querie reference	INSERT07
Querie description	Create new owner
Querie frequency	Units per month

```
INSERT INTO owners (id,user_id,event_id)
            VALUES ($id,$user_id,$event_id);
```

Querie reference	INSERT08
Querie description	Create new image
Querie frequency	Tens per month

```
INSERT INTO images (id,path) VALUES ($id,$path);
```

Querie reference	INSERT09
Querie description	Create new localization
Querie frequency	Units per month

```
INSERT INTO localizations (id,name,address,latitude,longitude,city_id)
VALUES ($id,$name,$address,$latitude,$longitude,$city_id);
```

Querie reference	INSERT10
Querie description	Create new city
Querie frequency	Units per month

```
INSERT INTO cities (id,name,country_id) VALUES ($id,$name,$country_id);
```

Querie reference	INSERT11
Querie description	Create new country
Querie frequency	Units per month

```
INSERT INTO countries (id,name) VALUES ($id,$name);
```

Querie reference	INSERT12
Querie description	Create new poll
Querie frequency	Units per month

```
INSERT INTO polls (id,post_id) VALUES ($id,$posts_id);
```

Querie reference	INSERT13
Querie description	Create new option
Querie frequency	Tens per month

```
INSERT INTO options (id,description,poll_id) VALUES
($id,$description,$poll_id);
```

Querie reference	INSERT14
Querie description	Create new friend request
Querie frequency	Tens per month

```
INSERT INTO friend_requests (id,answer,sender_id,receiver_id) VALUES
($id,$answer,$sender_id,$receiver_id);
```

Querie reference	INSERT15
Querie description	Create new friend activity
Querie frequency	Tens per month

```
INSERT INTO friend_activities (id,sender_id,receiver_id,event_id)
VALUES ($id,$sender_id,$receiver_id,$event_id);
```

Querie reference	INSERT16
Querie description	Create new event invite
Querie frequency	Tens per month

```
INSERT INTO event_invites (id,answer,event_id,owner_id,receiver_id)
VALUES ($id,$answer,$event_id,$owner_id,$receiver_id);
```

Querie reference	INSERT17
Querie description	Create new friendship
Querie frequency	Tens per month

```
INSERT INTO friendships (id, user_id_1, user_id_2) VALUES ($id,
$user_id_1, $user_id_2);
```

Querie reference	INSERT18
Querie description	Create new event warning
Querie frequency	Tens per month

```
INSERT INTO event_warnings (id, event_id, receiver_id, message) VALUES
($id, $event_id, $receiver_id, $message);
```

Querie reference	DELETE01
Querie description	Delete an user
Querie frequency	Units per month

```
DELETE FROM "users"
WHERE id = $id;
```

Querie reference	DELETE02
Querie description	Delete an event
Querie frequency	Units per month

```
DELETE FROM events
WHERE id = $id;
```

Querie reference	DELETE03
Querie description	Delete a post
Querie frequency	Units per month

```
DELETE FROM posts
WHERE id = $id;
```

Querie reference	DELETE04
Querie description	Delete an option
Querie frequency	Tens per month

```
DELETE FROM options
WHERE id = $id;
```

Querie reference	DELETE05
Querie description	Delete a poll
Querie frequency	Units per month

```
DELETE FROM polls
WHERE id = $id;
```

Querie reference	DELETE06
Querie description	Delete a friendship
Querie frequency	Units per month

```
DELETE FROM friendships
WHERE id = $id;
```

Querie reference	DELETE07
Querie description	Delete a friend_request
Querie frequency	Tens per month

```
DELETE FROM friend_requests
WHERE id = $id;
```

Querie reference	DELETE08
Querie description	Delete an event_invite
Querie frequency	Tens per month

```
DELETE FROM event_invites
WHERE id = $id;
```

2. Proposed Indexes

2.1. Performance Indexes

Index reference	IDX01
Related queries	SELECT01
Índex relation	user
Índex atribute	username
Index type	Hash
Cardinality	High

Clustering	No
Justification	Query SELECT01 has to be fast as it is executed many times; doesn't need range query support; cardinality is high because email is an unique key; it's not a good candidate for clustering.
CREATE INDEX user_username **ON** users USING hash (username);	

Index reference	IDX02
Related queries	SELECT02
Índex relation	events
Índex atribute	Owner_id
Index type	Hash
Cardinality	high
Clustering	No
Justification	Query has to be fast as it is executed many times; doesn't need range query support; cardinality is high because email is an unique key; it's not a good candidate for clustering.
CREATE INDEX owner_events **ON** events **USING** hash(owner_id);	

2.2. Full-text search indexes

Index reference	IDX03
Related queries	SELECT03
Índex relation	event
Índex atribute	name
Index type	GIST
Clustering	No
Justification	To improve the performance of full text searches while searching for works and their titles; GiST because it's better for dynamic data.

```
CREATE INDEX search_events ON events USING GIST (to_tsvector('english', name));
```

3. Triggers

Trigger reference	TRIGGER01
Trigger description	When the current_date is updated, it is verified if it is greater than the event_date. In that case, the event is added to the dones table and removed from the not_dones.

```
CREATE FUNCTION set_event_as_done() RETURNS TRIGGER AS
$BODY$
BEGIN
  IF EXISTS (SELECT event_id FROM not_done WHERE NEW.event_id = id)
  THEN
    INSERT INTO dones (NEW.event_id, NULL);
    DELETE FROM not_dones WHERE id = NEW.event_id;
  END IF;
  RETURN NEW;
END
$BODY$
LANGUAGE plpgsql;

CREATE TRIGGER set_event_as_done
  BEFORE UPDATE OF date ON current_date
  FOR EACH ROW
  WHEN NEW.date = now()
    EXECUTE PROCEDURE set_event_as_done();
```

Trigger reference	TRIGGER02
Trigger description	When an event is deleted a notification is sent to the user

```
CREATE FUNCTION notificate_event_delete() RETURNS TRIGGER AS
$BODY$
WHILE( SELECT id FROM participants WHERE participants.event_id =
OLD.event_id)
BEGIN
  INSERT INTO event_warnings(OLD.event_id, id)
END
$BODY$
LANGUAGE plpgsql;

CREATE TRIGGER notificate_event_delete
```

```
FOR DELETE OR UPDATE ON events
FOR EACH ROW
  EXECUTE PROCEDURE notificate_event_delete();
```

4. SQL code

```
--Types Enums

DROP TYPE IF EXISTS categories CASCADE;
CREATE TYPE categories AS ENUM(
    'Music',
    'Sports',
    'Entertainment',
    'Educational',
    'Business',
    'Other'
);
DROP TYPE IF EXISTS types_of_event CASCADE;
CREATE TYPE types_of_event AS ENUM(
    'Public',
    'Private'
);

--Tables
DROP TABLE IF EXISTS admins CASCADE;
CREATE TABLE admins (
    id SERIAL NOT NULL,
    username text NOT NULL,
    password text NOT NULL,
    email text NOT NULL,
    CONSTRAINT admins_pk PRIMARY KEY (id),
    CONSTRAINT admins_email_uk UNIQUE (email)
);

DROP TABLE IF EXISTS cities CASCADE;
CREATE TABLE cities (
    id SERIAL NOT NULL,
    name text NOT NULL,
    country_id INTEGER NOT NULL,
    CONSTRAINT cities_pk PRIMARY KEY (id),
    CONSTRAINT cities_name_uk UNIQUE (name)

);

DROP TABLE IF EXISTS current_date CASCADE;
CREATE TABLE current_date (
    id SERIAL NOT NULL,
    date TIMESTAMP WITH TIME zone NOT NULL,
```

```
47.     CONSTRAINT current_date_pk PRIMARY KEY (id),
48. );
49. 
50. DROP TABLE IF EXISTS countries CASCADE;
51. CREATE TABLE countries (
52.     id SERIAL NOT NULL,
53.     name text NOT NULL,
54.     CONSTRAINT countries_pk PRIMARY KEY (id),
55.     CONSTRAINT countries_name_uk UNIQUE (name)
56. );
57. 
58. DROP TABLE IF EXISTS dones CASCADE;
59. CREATE TABLE dones (
60.     event_id INTEGER NOT NULL,
61.     rating INTEGER,
62.     CONSTRAINT dones_pk PRIMARY KEY (event_id),
63.     CONSTRAINT rating_ck CHECK (((rating >= 1) AND (rating <= 5)))
64. );
65. 
66. DROP TABLE IF EXISTS events CASCADE;
67. CREATE TABLE events (
68.     id SERIAL NOT NULL,
69.     name text NOT NULL,
70.     date TIMESTAMP WITH TIME zone NOT NULL,
71.     description text NOT NULL,
72.     owner_id INTEGER NOT NULL,
73.     localization_id INTEGER NOT NULL,
74.     image_id INTEGER NOT NULL,
75.     type event_type NOT NULL,
76.     category categories NOT NULL,
77.     CONSTRAINT events_pk PRIMARY KEY (id),
78.     CONSTRAINT date_ck CHECK ((date > now()))
79. );
80. 
81. DROP TABLE IF EXISTS event_invites CASCADE;
82. CREATE TABLE event_invites (
83.     id SERIAL NOT NULL,
84.     answer text NOT NULL,
85.     event_id INTEGER NOT NULL,
86.     owner_id INTEGER NOT NULL,
87.     receiver_id INTEGER NOT NULL,
88.     CONSTRAINT event_invites_pk PRIMARY KEY (id)
89. );
90. 
91. DROP TABLE IF EXISTS event_warnings CASCADE;
92. CREATE TABLE event_warnings (
93.     id SERIAL NOT NULL,
94.     event_id INTEGER NOT NULL,
95.     receiver_id INTEGER NOT NULL,
```

```
96.     message text NOT NULL,
97.     CONSTRAINT event_warnings_pk PRIMARY KEY (id),
98.     CONSTRAINT event_warnings_event_id_fk FOREIGN KEY (event_id)
   REFERENCES events(id),
99.     CONSTRAINT event_warnings_user_id_fk FOREIGN KEY (user_id)
   REFERENCES users(id)
100.    );
101.
102.    DROP TABLE IF EXISTS friend_activities CASCADE;
103.    CREATE TABLE friend_activities (
104.        id SERIAL NOT NULL,
105.        sender_id INTEGER NOT NULL,
106.        receiver_id INTEGER NOT NULL,
107.        event_id INTEGER NOT NULL,
108.        CONSTRAINT friend_activities_pk PRIMARY KEY (id),
109.        CONSTRAINT friend_activities_event_id_fk FOREIGN KEY
   (event_id) REFERENCES
110.        events(id) ON DELETE CASCADE
111.    );
112.
113.    DROP TABLE IF EXISTS friend_requests CASCADE;
114.    CREATE TABLE friend_requests (
115.        id SERIAL NOT NULL,
116.        answer text NOT NULL,
117.        sender_id INTEGER NOT NULL,
118.        receiver_id INTEGER NOT NULL,
119.        CONSTRAINT friend_requests_pk PRIMARY KEY (id)
120.    );
121.    DROP TABLE IF EXISTS friendships CASCADE;
122.    CREATE TABLE friendships (
123.        id SERIAL NOT NULL,
124.        user_id_1 INTEGER NOT NULL,
125.        user_id_2 INTEGER NOT NULL,
126.        CONSTRAINT friendships_users_ids_uk UNIQUE (user_id_1,
   user_id_2)
127.
128.    )
129.
130.    DROP TABLE IF EXISTS images CASCADE;
131.    CREATE TABLE images (
132.        id SERIAL NOT NULL,
133.        path text NOT NULL,
134.        CONSTRAINT images_pk PRIMARY KEY (id),
135.        CONSTRAINT images_path_uk UNIQUE (path)
136.    );
137.
138.    DROP TABLE IF EXISTS localizations CASCADE;
139.    CREATE TABLE localizations (
140.        id SERIAL NOT NULL,
```

```
141.          name text NOT NULL,
142.          address text NOT NULL,
143.          latitude FLOAT,
144.          longitude FLOAT,
145.          city_id INTEGER NOT NULL,
146.          CONSTRAINT localizations_pk PRIMARY KEY (id),
147.          CONSTRAINT localizations_city_id_fk FOREIGN KEY (city_id)
   REFERENCES
148.          cities(id) ON DELETE SET NULL
149.      );
150.
151.      DROP TABLE IF EXISTS not_dones CASCADE;
152.      CREATE TABLE not_dones (
153.          event_id INTEGER NOT NULL,
154.          CONSTRAINT not_dones_pk PRIMARY KEY (event_id),
155.          CONSTRAINT not_dones_event_id_fk FOREIGN KEY (event_id)
   REFERENCES
156.          events(id) ON UPDATE CASCADE
157.      );
158.
159.      DROP TABLE IF EXISTS options CASCADE;
160.      CREATE TABLE options (
161.          id SERIAL NOT NULL,
162.          description text NOT NULL,
163.          poll_id INTEGER NOT NULL,
164.          CONSTRAINT options_pk PRIMARY KEY (id)
165.      );
166.
167.      DROP TABLE IF EXISTS owners CASCADE;
168.      CREATE TABLE owners (
169.          id SERIAL NOT NULL,
170.          user_id INTEGER NOT NULL,
171.          event_id INTEGER NOT NULL,
172.          CONSTRAINT owners_pk PRIMARY KEY (id),
173.          CONSTRAINT owners_user_id_event_id_uk UNIQUE (user_id,
   event_id),
174.          CONSTRAINT owners_event_id_fk FOREIGN KEY (event_id)
   REFERENCES
175.          events(id) ON DELETE SET NULL
176.      );
177.
178.      DROP TABLE IF EXISTS participants CASCADE;
179.      CREATE TABLE participants (
180.          id SERIAL NOT NULL,
181.          user_id INTEGER NOT NULL,
182.          event_id INTEGER NOT NULL,
183.          CONSTRAINT participants_pk PRIMARY KEY (id),
184.          CONSTRAINT participants_user_id_event_id_uk UNIQUE
   (user_id, event_id),
```

```
185.         CONSTRAINT participants_event_id_fk FOREIGN KEY
   (event_id) REFERENCES
186.         events(id) ON DELETE SET NULL
187.     );
188.
189.     DROP TABLE IF EXISTS polls CASCADE;
190.     CREATE TABLE polls (
191.         id SERIAL NOT NULL,
192.         post_id INTEGER NOT NULL,
193.         CONSTRAINT polls_pk PRIMARY KEY (id)
194.     );
195.
196.     DROP TABLE IF EXISTS posts CASCADE;
197.     CREATE TABLE posts (
198.         id SERIAL NOT NULL,
199.         description text NOT NULL,
200.         date TIMESTAMP WITH TIME zone NOT NULL,
201.         event_id INTEGER NOT NULL,
202.         user_id INTEGER NOT NULL,
203.         image_id INTEGER NOT NULL,
204.         CONSTRAINT posts_pk PRIMARY KEY (id),
205.         CONSTRAINT posts_event_id_fk FOREIGN KEY (event_id)
   REFERENCES
206.         events(id) ON DELETE CASCADE,
207.         CONSTRAINT posts_image_id_fk FOREIGN KEY (image_id)
   REFERENCES
208.         images(id) ON DELETE SET NULL
209.     );
210.
211.     DROP TABLE IF EXISTS users CASCADE;
212.     CREATE TABLE users (
213.         id SERIAL NOT NULL,
214.         username text NOT NULL,
215.         password text NOT NULL,
216.         email text NOT NULL,
217.         regist_date TIMESTAMP WITH TIME zone DEFAULT now() NOT
   NULL,
218.         first_name text NOT NULL,
219.         last_name text NOT NULL,
220.         image_path text NOT NULL,
221.         city_id INTEGER NOT NULL,
222.         CONSTRAINT users_pk PRIMARY KEY (id),
223.         CONSTRAINT users_name_uk UNIQUE (username),
224.         CONSTRAINT users_email_uk UNIQUE (email),
225.         CONSTRAINT users_city_id_fk FOREIGN KEY (city_id)
   REFERENCES
226.         cities(id) ON DELETE SET NULL
227.     );
228.
```

```
229.     ALTER TABLE ONLY cities
230.         ADD CONSTRAINT cities_country_id_fk FOREIGN KEY
   (country_id) REFERENCES
231.         countries(id) ON DELETE SET NULL;
232.
233.     ALTER TABLE ONLY dones
234.         ADD CONSTRAINT dones_event_id_fk FOREIGN KEY (event_id)
   REFERENCES
235.          events(id) ON UPDATE CASCADE;
236.
237.     ALTER TABLE ONLY events
238.         ADD CONSTRAINT events_owner_id_fk FOREIGN KEY (owner_id)
   REFERENCES
239.         users(id) ON UPDATE CASCADE;
240.
241.     ALTER TABLE ONLY events
242.         ADD CONSTRAINT events_localization_id_fk FOREIGN KEY
   (localization_id) REFERENCES
243.         localizations(id) ON DELETE SET NULL;
244.
245.     ALTER TABLE ONLY events
246.         ADD CONSTRAINT events_image_id_fk FOREIGN KEY (image_id)
   REFERENCES
247.         images(id) ON DELETE SET NULL;
248.
249.     ALTER TABLE ONLY event_invites
250.         ADD CONSTRAINT event_invites_event_id_fk FOREIGN KEY
   (event_id) REFERENCES
251.         not_dones(event_id) ON DELETE CASCADE;
252.
253.     ALTER TABLE ONLY event_invites
254.         ADD CONSTRAINT event_invites_owner_id_fk FOREIGN KEY
   (owner_id) REFERENCES
255.         owners(id) ON DELETE SET NULL;
256.
257.     ALTER TABLE ONLY event_invites
258.         ADD CONSTRAINT event_invites_receiver_id_fk FOREIGN KEY
   (receiver_id) REFERENCES
259.         users(id) ON DELETE SET NULL;
260.
261.     ALTER TABLE ONLY friend_activities
262.         ADD CONSTRAINT friend_activities_sender_id_fk FOREIGN KEY
   (sender_id) REFERENCES
263.         users(id) ON DELETE SET NULL;
264.
265.     ALTER TABLE ONLY friend_activities
266.         ADD CONSTRAINT friend_activities_receiver_id_fk FOREIGN
   KEY (receiver_id) REFERENCES
267.         users(id) ON DELETE SET NULL;
```

```
268.
269.     ALTER TABLE ONLY friend_requests
270.         ADD CONSTRAINT friend_requests_sender_id_fk FOREIGN KEY
   (sender_id) REFERENCES
271.         participants(id) ON DELETE CASCADE;
272.
273.     ALTER TABLE ONLY friend_requests
274.         ADD CONSTRAINT friend_requests_receiver_id_fk FOREIGN KEY
   (receiver_id) REFERENCES
275.         users(id) ON DELETE CASCADE;
276.
277.     ALTER TABLE ONLY friendships
278.         ADD CONSTRAINT friendships_user_id_1 FOREIGN KEY
   (user_id_1) REFERENCES
279.         users(id) ON UPDATE CASCADE;
280.
281.     ALTER TABLE ONLY friendships
282.         ADD CONSTRAINT friendships_user_id_2 FOREIGN KEY
   (user_id_2) REFERENCES
283.         users(id) ON UPDATE CASCADE;
284.
285.     ALTER TABLE ONLY options
286.         ADD CONSTRAINT options_poll_id_fk FOREIGN KEY (poll_id)
   REFERENCES
287.         polls(id) ON DELETE CASCADE;
288.
289.     ALTER TABLE ONLY owners
290.         ADD CONSTRAINT owners_user_id_fk FOREIGN KEY (user_id)
   REFERENCES
291.         users(id) ON UPDATE CASCADE;
292.
293.     ALTER TABLE ONLY participants
294.         ADD CONSTRAINT participants_user_id_fk FOREIGN KEY
   (user_id) REFERENCES
295.         users(id) ON UPDATE CASCADE;
296.
297.     ALTER TABLE ONLY polls
298.         ADD CONSTRAINT polls_post_id_fk FOREIGN KEY (post_id)
   REFERENCES
299.         posts(id) ON DELETE CASCADE;
300.
301.     ALTER TABLE ONLY posts
302.         ADD CONSTRAINT posts_user_id_fk FOREIGN KEY (user_id)
   REFERENCES
303.         users(id) ON DELETE CASCADE;
304.
305.     UPDATE "users"
306.     SET password = $password,
307.         email = #email,
```

```
308.         first_name = $first_name,
309.         last_name = $last_name,
310.         image_path = $image_path,
311.         city_id = $city_id
312.     WHERE id = $id;
313.
314.     UPDATE events
315.     SET name = $name,
316.         date = $date,
317.         description = $description,
318.         localization_id = $localization_id,
319.         image_id = $image_id,
320.         event_type = $event_type,
321.         category = $category
322.     WHERE id = $id;
323.
324.     UPDATE dones
325.     SET rating = $rating
326.     WHERE event_id = $event_id;
327.
328.     UPDATE options
329.     SET description = $description
330.     WHERE id = $id;
331.
332.     UPDATE posts
333.     SET description = $description.
334.         date = $date,
335.         image_id = $image_id
336.     WHERE id = $id;
337.
338.     UPDATE current_date
339.     SET date = $date
340.     WHERE id = $id;
341.
342.     DELETE FROM "users"
343.     WHERE id = $id;
344.
345.     DELETE FROM events
346.     WHERE id = $id;
347.
348.     DELETE FROM posts
349.     WHERE id = $id;
350.
351.     DELETE FROM options
352.     WHERE id = $id;
353.
354.     DELETE FROM polls
355.     WHERE id = $id;
356.
```

```
357.      DELETE FROM friendships
358.      WHERE id = $id;
359.
360.      DELETE FROM friend_requests
361.      WHERE id = $id;
362.
363.      DELETE FROM event_invites
364.      WHERE id = $id;
365.
366.      CREATE FUNCTION set_event_as_done() RETURNS TRIGGER AS
367.      $BODY$
368.      BEGIN
369.        IF EXISTS (SELECT event_id FROM not_done WHERE NEW.event_id
    = id)
370.        THEN
371.          INSERT INTO dones (NEW.event_id, NULL);
372.          DELETE FROM not_dones WHERE id = NEW.event_id;
373.        END IF;
374.        RETURN NEW;
375.      END
376.      $BODY$
377.      LANGUAGE plpgsql;
378.
379.      CREATE TRIGGER set_event_as_done
380.        BEFORE UPDATE OF date ON current_date
381.        FOR EACH ROW
382.        WHEN NEW.date = now()
383.          EXECUTE PROCEDURE set_event_as_done();
384.
385.      CREATE FUNCTION notificate_event_delete() RETURNS TRIGGER AS
386.      $BODY$
387.      WHILE( SELECT id FROM participants WHERE
    participants.event_id = OLD.event_id)
388.      BEGIN
389.        INSERT INTO event_warnings(OLD.event_id, id)
390.      END
391.      $BODY$
392.      LANGUAGE plpgsql;
393.
394.      CREATE TRIGGER notificate_event_delete
395.        FOR DELETE OR UPDATE ON events
396.        FOR EACH ROW
397.          EXECUTE PROCEDURE notificate_event_delete();
398.

399.      --> QUERIES
400.
401.      --> user profile
```

```
    SELECT username, last_name, first_name, email, image_path,
  city_id
      FROM users
      WHERE users.id = $user_id;

    --> user friends
    SELECT user_id_1, user_id_2
      FROM friendships
      WHERE user_id_1 = $user_id OR user_id_2 = $user_id;

    --> user events
    SELECT event_id
      FROM participants
      WHERE user_id = $user_id

    SELECT event_id
      FROM owners
      WHERE user_id = $user_id

    --> notifications
    SELECT sender_id
      FROM friend_requests
      WHERE receiver_id = $user_id

    SELECT sender_id, event_id
      FROM friend_activities
      WHERE receiver_id = $user_id

    SELECT owner_id, event_id
      FROM event_invites
      WHERE receiver_id = $user_id

    SELECT event_id, "message"
      FROM event_warnings
      WHERE receiver_id = $user_id

     --> search user
    SELECT id, username, image_path
    FROM users
      WHERE username LIKE %$search%
      ORDER BY username;

    --> search event
    SELECT id, "name", image_id, "date", localization, category
    FROM events
      WHERE "name" LIKE %$search% OR localization LIKE %$search%
  AND event_type = 'public'
      ORDER BY "name";

```

```
449.      --> filter by category
450.      SELECT id, "name", image_id, "date", localization, category
451.      FROM events
452.        WHERE "name" LIKE %$search% OR localization LIKE %$search%
   AND event_type = 'public' AND events.category LIKE %$categories%
453.        ORDER BY "name";
454.
455.      --> search user
456.      SELECT username, email, image_path
457.        FROM users
458.        WHERE username LIKE %$search% OR email LIKE %$search%
459.      ORDER BY username;
460.
461.      --> event page
462.      SELECT events.id, events.name, events.category,
   events.image_id, events.description, events."date" users.username
463.        FROM events, users
464.        WHERE events.owner_id = users.id AND events.id = $id;
465.
466.      SELECT posts.description, posts.id, posts.image_id,
   posts.user_id
467.        FROM posts,events
468.        WHERE posts.event_id = events.id;
469.
470.      SELECT users.username, users.image_path
471.        FROM participants
472.        WHERE users.id = participants.user_id AND
   participants.event_id=event.id;~
473.
474.      --> INSERTS
475.
476.      -- Here goes the SQL code - INSERTS
477.
478.      INSERT INTO users
   (id,username,password,email,regist_date,first_name,last_name,
   image_path,city_id)
479.                  VALUES
   (1,'sodales','GUL95ZXR9EX','sodales.at@curae.co.uk','2018-03-07
   22:23:34','Zeph','Griffin','/imgs/natu.jpg');
480.
481.
482.      INSERT INTO users
   (id,username,password,email,regist_date,first_name,last_name,
   image_path,city_id)
483.                  VALUES
   (2,'uso1','12345','aliquam.iaculis.lacus@amet.co.uk','2018-04-07
   11:23:34','Ben','Warren','/imgs/natur.jpg');
484.
```

```
485.     INSERT INTO users
   (id,username,password,email,regist_date,first_name,last_name,
   image_path,city_id)
486.                 VALUES
   (3,'robin','pass123','amet.ante@faucibusleo.net','2018-02-12
   15:55:12','Robin','Wright','/imgs/natur.jpg');
487.
488.
489.     INSERT INTO users
   (id,username,password,email,regist_date,first_name,last_name,
   image_path,city_id)
490.                 VALUES
   (4,'bar123','semper123','ut.dolor@gmail.com','2017-12-12
   23:55:12','Barry','Allen','/imgs/natur.jpg');
491.
492.     INSERT INTO users
   (id,username,password,email,regist_date,first_name,last_name,
   image_path,city_id)
493.                 VALUES (5,'reddevil','LBAW','Nulla@et.net','2018-
   02-12 15:55:12','Andrew','Irons','/imgs/november.jpg');
494.
495.     INSERT INTO users
   (id,username,password,email,regist_date,first_name,last_name,
   image_path,city_id)
496.                 VALUES
   (6,'rpedro10','lbaw1765','rpedro10@iol.pt','2018-01-01
   23:55:12','Rui','Araujo','/imgs/fer.jpg');
497.
498.
499.     INSERT INTO users
   (id,username,password,email,regist_date,first_name,last_name,
   image_path,city_id)
500.                 VALUES
   (7,'joss123','CKB15AAW5MM','ante@fleo.com','2018-03-12
   12:55:12','Joss','Stone','/imgs/natur.jpg');
501.
502.     INSERT INTO users
   (id,username,password,email,regist_date,first_name,last_name,
   image_path,city_id)
503.                 VALUES
   (8,'top123','SXT16TTW3MH','cursus.et@orciUt.co.uk','2018-01-03
   13:55:12','Chris','Harris','/imgs/natur.jpg');
504.
505.
506.     INSERT INTO users
   (id,username,password,email,regist_date,first_name,last_name,
   image_path,city_id)
```

```
507.                VALUES
   (9,'roland1','ZYS24FHN5GR','eget.dictum@orciDonec.edu','2018-03-12
   09:55:12','Roland','Schitt','/imgs/natur.jpg');
508.
509.     INSERT INTO users
   (id,username,password,email,regist_date,first_name,last_name,
   image_path,city_id)
510.                VALUES
   (10,'david123','ZUS29FRTGVJ','amet@faucibusleo.net','2018-01-22
   15:07:12','David','Rose','/imgs/natur.jpg');
511.
512.     INSERT INTO users
   (id,username,password,email,regist_date,first_name,last_name,
   image_path,city_id)
513.                VALUES (11,'catones',
   'QQQ8EFHNGNR','amec.donec@faucibusleo.net','2017-11-12
   15:55:12','Carlos','Antonio','/imgs/november.jpg');
514.
515.     INSERT INTO users
   (id,username,password,email,regist_date,first_name,last_name,
   image_path,city_id)
516.                VALUES
   (12,'emanem','ASDFGHJKL','donex@sapo.net','2018-01-13
   15:55:12','Raheem','Sterling','/imgs/natur.jpg');
517.
518.     INSERT INTO users
   (id,username,password,email,regist_date,first_name,last_name,
   image_path,city_id)
519.                VALUES
   (13,'ufoExtis','ZXCVBNM','amet@iol.net','2018-02-12
   15:55:12','Delle','Alli','/imgs/pyr.jpg');
520.
521.     INSERT INTO users
   (id,username,password,email,regist_date,first_name,last_name,
   image_path,city_id)
522.                VALUES
   (14,'ragnar','QAZWSXEDC','risus.In.mi@egestas.com','2018-02-09
   15:55:12','Thor','Ragnarok','/imgs/fer.jpg');
523.
524.     INSERT INTO users
   (id,username,password,email,regist_date,first_name,last_name,
   image_path,city_id)
525.                VALUES
   (15,'seth','QWERTYUIOP','aliquet.diam.Sed@tinciduntnibh.co.uk','201
   8-01-12 15:55:12','Seth','Byers','/imgs/natu.jpg');
526.
527.     INSERT INTO users
   (id,username,password,email,regist_date,first_name,last_name,
   image_path,city_id)
```

```
528.                 VALUES
   (16,'edNorton','TYT71DOD7YN','scelerisque.scelerisque.dui@arcuiacul
   isenim.ca','2018-02-23 15:55:12','Ed','Norton','/imgs/natur.jpg');
529.
530.     INSERT INTO users
   (id,username,password,email,regist_date,first_name,last_name,
   image_path,city_id)
531.                 VALUES
   (17,'Pacquiao','SXT16TTW3MH','magnis@cursuset.edu','2018-04-12
   15:55:12','Paky','Barret','/imgs/natur.jpg');
532.
533.     INSERT INTO users
   (id,username,password,email,regist_date,first_name,last_name,
   image_path,city_id)
534.                 VALUES
   (18,'steven','MPS10QPK6UE','arcu.Vestibulum@amet.org','2018-01-02
   12:55:12','Donovan','Stevenson','/imgs/pyr.jpg');
535.
536.     INSERT INTO users
   (id,username,password,email,regist_date,first_name,last_name,
   image_path,city_id)
537.                 VALUES
   (19,'porter123','QIG24ZOK3EM','dui.nec@ultriciesadipiscing.co.uk','
   2018-02-12 15:55:12','Porter','Osborn','/imgs/natu.jpg');
538.
539.     INSERT INTO users
   (id,username,password,email,regist_date,first_name,last_name,
   image_path,city_id)
540.                 VALUES
   (20,'human','ZYG87WQA6FX','facilisis.magna.tellus@sociis.net','2018
   -04-01 11:55:12','Hu','Randolphe','/imgs/pyr.jpg');
541.
542.
543.     INSERT INTO events
   (id,name,date,description,owner_id,localization_id,image_id,type,ca
   tegory)
544.                 VALUES (1,'Antonys Birthday Party', '2018-03-04
   12:30:19.000000', 'nunc ac mattis ornare,
   lectus',1,1,1,'Public','Sports');
545.
546.     INSERT INTO events
   (id,name,date,description,owner_id,localization_id,image_id,type,ca
   tegory)
547.                 VALUES (2,'ENEI','2018-04-04
   12:30:19.000000','Nunc quis arcu vel
   quam',2,2,2,'Public','Sports');
548.
```

```
549.     INSERT INTO events
   (id,name,date,description,owner_id,localization_id,image_id,type,ca
   tegory)
550.                 VALUES (3,'RockInRio','2018-06-04
   12:30:19.000000','tempus eu, ligula. Aenean
   euismod',3,3,3,'Public','Sports');
551.
552.     INSERT INTO events
   (id,name,date,description,owner_id,localization_id,image_id,type,ca
   tegory)
553.                 VALUES (4,'Nos Alive','2018-08-04
   12:30:19.000000','dignissim pharetra. Nam ac
   nulla.',3,4,4,'Public','Sports');
554.
555.     INSERT INTO events
   (id,name,date,description,owner_id,localization_id,image_id,type,ca
   tegory)
556.                 VALUES (5,'Christmas Dinner','2018-10-04
   12:30:19.000000','dignissim pharetra. Nam ac
   nulla.',4,5,5,'Public','Sports');
557.
558.     INSERT INTO events
   (id,name,date,description,owner_id,localization_id,image_id,type,ca
   tegory)
559.                 VALUES (6,'Mark Birthday Party','2018-04-04
   12:30:19.000000','dignissim pharetra. Nam ac
   nulla.',1,1,6,'Public','Sports');
560.
561.     INSERT INTO events
   (id,name,date,description,owner_id,localization_id,image_id,type,ca
   tegory)
562.                 VALUES (7,'WebSummit','2018-04-04
   12:30:19.000000','lorem lorem, luctus ut,
   pellentesque',6,6,7,'Public','Sports');
563.
564.     INSERT INTO events
   (id,name,date,description,owner_id,localization_id,image_id,type,ca
   tegory)
565.                 VALUES (8,'Ted Talk','2018-04-04
   12:30:19.000000','sollicitudin orci sem eget
   massa.',12,2,8,'Public','Sports');
566.
567.
568.
569.     INSERT INTO dones (event_id,rating)
570.                 VALUES (2,5);
571.     INSERT INTO dones (event_id,rating)
572.                 VALUES (7,3);
573.
```

```
574.     INSERT INTO not_dones (event_id)
575.                 VALUES (1);
576.     INSERT INTO not_dones (event_id)
577.                 VALUES (3);
578.     INSERT INTO not_dones (event_id)
579.                 VALUES (4);
580.     INSERT INTO not_dones (event_id)
581.                 VALUES (5);
582.     INSERT INTO not_dones (event_id)
583.                 VALUES (6);
584.     INSERT INTO not_dones (event_id)
585.                 VALUES (8);
586.
587.
588.
589.     INSERT INTO participants (id,user_id,event_id)
590.                 VALUES (1,1,1);
591.     INSERT INTO participants (id,user_id,event_id)
592.                 VALUES (2,2,1);
593.     INSERT INTO participants (id,user_id,event_id)
594.                 VALUES (3,2,2);
595.     INSERT INTO participants (id,user_id,event_id)
596.                 VALUES (4,3,1);
597.     INSERT INTO participants (id,user_id,event_id)
598.                 VALUES (5,4,1);
599.     INSERT INTO participants (id,user_id,event_id)
600.                 VALUES (6,5,8);
601.     INSERT INTO participants (id,user_id,event_id)
602.                 VALUES (7,6,8);
603.     INSERT INTO participants (id,user_id,event_id)
604.                 VALUES (8,7,3);
605.     INSERT INTO participants (id,user_id,event_id)
606.                 VALUES (9,12,3);
607.     INSERT INTO participants (id,user_id,event_id)
608.                 VALUES (10,13,3);
609.     INSERT INTO participants (id,user_id,event_id)
610.                 VALUES (11,14,3);
611.     INSERT INTO participants (id,user_id,event_id)
612.                 VALUES (12,15,1);
613.     INSERT INTO participants (id,user_id,event_id)
614.                 VALUES (13,16,2);
615.     INSERT INTO participants (id,user_id,event_id)
616.                 VALUES (14,17,3);
617.     INSERT INTO participants (id,user_id,event_id)
618.                 VALUES (15,18,2);
619.     INSERT INTO participants (id,user_id,event_id)
620.                 VALUES (16,19,1);
621.     INSERT INTO participants (id,user_id,event_id)
622.                 VALUES (17,20,3);
```

```
623.     INSERT INTO participants (id,user_id,event_id)
624.                 VALUES (18,12,6);
625.     INSERT INTO participants (id,user_id,event_id)
626.                 VALUES (19,12,5);
627.     INSERT INTO participants (id,user_id,event_id)
628.                 VALUES (20,10,4);
629.
630.
631.
632.     INSERT INTO owners (id,user_id,event_id)
633.                 VALUES (1,1,1);
634.     INSERT INTO owners (id,user_id,event_id)
635.                 VALUES (2,2,2);
636.     INSERT INTO owners (id,user_id,event_id)
637.                 VALUES (3,3,3);
638.     INSERT INTO owners (id,user_id,event_id)
639.                 VALUES (4,3,4);
640.     INSERT INTO owners (id,user_id,event_id)
641.                 VALUES (5,5,5);
642.     INSERT INTO owners (id,user_id,event_id)
643.                 VALUES (6,1,6);
644.     INSERT INTO owners (id,user_id,event_id)
645.                 VALUES (7,6,7);
646.     INSERT INTO owners (id,user_id,event_id)
647.                 VALUES (8,12,8);
648.
649.
650.
651.     INSERT INTO images (id,path) VALUES
    (1,'/imgs/natur.jpg');
652.     INSERT INTO images (id,path) VALUES
    (2,'/imgs/natu.jpg');
653.     INSERT INTO images (id,path) VALUES
    (3,'/imgs/pyr.jpg');
654.     INSERT INTO images (id,path) VALUES
    (4,'/imgs/november.jpg');
655.     INSERT INTO images (id,path) VALUES
    (5,'/imgs/taj.jpg');
656.     INSERT INTO images (id,path) VALUES
    (6,'/imgs/fer.jpg');
657.     INSERT INTO images (id,path) VALUES
    (7,'/imgs/fa1.jpg');
658.     INSERT INTO images (id,path) VALUES (8,'/imgs/fa2.jpg');
659.
660.     INSERT INTO localizations
    (id,name,address,latitude,longitude,city_id) VALUES (1,'Restaurante
    O Pirata','Rua da Isabelinha',41.452993,-8.5775364,1);
```

```
661.     INSERT INTO localizations
   (id,name,address,latitude,longitude,city_id) VALUES (2,'FEUP','Rua
   Roberto Frias',41.1779401,-8.5998763,2);
662.     INSERT INTO localizations
   (id,name,address,latitude,longitude,city_id) VALUES (3,'Parque da
   BelaVista','Av. Arlindo Vicente',38.7507558,-9.1265431,3);
663.     INSERT INTO localizations
   (id,name,address,latitude,longitude,city_id) VALUES (4,'Passeio
   Maritimo de Alges','Alges',38.697318,-9.2375993,3);
664.     INSERT INTO localizations
   (id,name,address,latitude,longitude,city_id) VALUES (5,'Hotel
   Douro','Rua de Agramonte',41.1564707,-8.6288115,2);
665.     INSERT INTO localizations
   (id,name,address,latitude,longitude,city_id) VALUES (6,'Norte
   shopping','Matosinhos',41.1825143,-8.6803795,2);
666.
667.     INSERT INTO cities (id,name,country_id) VALUES (1,'Braga',1);
668.     INSERT INTO cities (id,name,country_id) VALUES (1,'Porto',1);
669.     INSERT INTO cities (id,name,country_id) VALUES
   (1,'Lisboa',1);
670.
671.     INSERT INTO countries (id,name) VALUES (1,'Portugal');
672.     INSERT INTO countries (id,name) VALUES (2,'Espanha');
673.     INSERT INTO countries (id,name) VALUES (3,'USA');
674.
675.     INSERT INTO posts (id,description,date,event_id, user_id,
   image_id) VALUES (1,'Lorem ipsum dolor sit amet. ','2018-02-12
   15:55:12',1,1,1);
676.     INSERT INTO posts (id,description,date,event_id, user_id,
   image_id) VALUES (2,'Lorem ipsum dolor sit amet. ','2018-02-12
   15:55:12',1,3,1);
677.     INSERT INTO posts (id,description,date,event_id, user_id,
   image_id) VALUES (3,'Lorem ipsum dolor sit amet. ','2018-02-12
   15:55:12',1,4,1);
678.     INSERT INTO posts (id,description,date,event_id, user_id,
   image_id) VALUES (4,'Lorem ipsum dolor sit amet. ''2018-02-12
   15:55:12',,1,16,1);
679.     INSERT INTO posts (id,description,date,event_id, user_id,
   image_id) VALUES (5,'Lorem ipsum dolor sit amet. ','2018-02-12
   15:55:12',2,18,1);
680.     INSERT INTO posts (id,description,date,event_id, user_id,
   image_id) VALUES (6,'Lorem ipsum dolor sit amet. ','2018-02-12
   15:55:12',4,10,2);
681.     INSERT INTO posts (id,description,date,event_id, user_id,
   image_id) VALUES (7,'Lorem ipsum dolor sit amet. ','2018-02-12
   15:55:12',3,17,2);
682.     INSERT INTO posts (id,description,date,event_id, user_id,
   image_id) VALUES (8,'Lorem ipsum dolor sit amet. ','2018-02-12
   15:55:12',3,14,2);
```

```
683.     INSERT INTO posts (id,description,date,event_id, user_id,
   image_id) VALUES (9,'Lorem ipsum dolor sit amet. ','2018-02-12
   15:55:12',4,5,3);
684.     INSERT INTO posts (id,description,date,event_id, user_id,
   image_id) VALUES (10,'Lorem ipsum dolor sit amet. ','2018-01-12
   15:55:12',2,16,2);
685.     INSERT INTO posts (id,description,date,event_id, user_id,
   image_id) VALUES (11,'Lorem ipsum dolor sit amet. ','2018-02-12
   15:55:12',3,12,2);
686.     INSERT INTO posts (id,description,date,event_id, user_id,
   image_id) VALUES (12,'Lorem ipsum dolor sit amet. ','2018-02-12
   15:55:12',1,15,2);
687.     INSERT INTO posts (id,description,date,event_id, user_id,
   image_id) VALUES (13,'Lorem ipsum dolor sit amet. ','2018-02-12
   15:55:12',5,12,3);
688.
689.     INSERT INTO polls (id,post_id) VALUES (1,1);
690.     INSERT INTO polls (id,post_id) VALUES (2,2);
691.     INSERT INTO polls (id,post_id) VALUES (3,3);
692.     INSERT INTO polls (id,post_id) VALUES (4,4);
693.
694.     INSERT INTO options (id,description,poll_id) VALUES
   (1,'Bar',1);
695.     INSERT INTO options (id,description,poll_id) VALUES
   (2,'Cafe',1);
696.     INSERT INTO options (id,description,poll_id) VALUES
   (3,'Club',1);
697.     INSERT INTO options (id,description,poll_id) VALUES
   (4,'Home',1);
698.     INSERT INTO options (id,description,poll_id) VALUES
   (5,'12/05/2018',2);
699.     INSERT INTO options (id,description,poll_id) VALUES
   (6,'13/05/2018',2);
700.     INSERT INTO options (id,description,poll_id) VALUES
   (7,'Great',3);
701.     INSERT INTO options (id,description,poll_id) VALUES
   (8,'Good',3);
702.     INSERT INTO options (id,description,poll_id) VALUES
   (9,'Available',4);
703.     INSERT INTO options (id,description,poll_id) VALUES (10,'Not
   Available',4);
704.
705.     INSERT INTO admin (id,username,password,email) VALUES
   (1,'admin','admin123','amec.reset@edu.pt');
706.
707.     INSERT INTO friend_requests (id,answer,sender_id,receiver_id)
   VALUES (1,'YES',1,2);
708.     INSERT INTO friend_requests (id,answer,sender_id,receiver_id)
   VALUES (3,'YES',1,3);
```

```
709.     INSERT INTO friend_requests (id,answer,sender_id,receiver_id)
   VALUES (4,'NO',1,4);
710.     INSERT INTO friend_requests (id,answer,sender_id,receiver_id)
   VALUES (5,'YES',1,5);
711.
712.     INSERT INTO friend_activities
   (id,sender_id,receiver_id,event_id) VALUES (1,1,2,1);
713.     INSERT INTO friend_activities
   (id,sender_id,receiver_id,event_id) VALUES (2,2,3,2);
714.
715.     INSERT INTO event_invites
   (id,answer,event_id,owner_id,receiver_id) VALUES (1,'YES',1,1,2);
716.     INSERT INTO event_invites
   (id,answer,event_id,owner_id,receiver_id) VALUES (2,'YES',1,1,3);
717.     INSERT INTO event_invites
   (id,answer,event_id,owner_id,receiver_id) VALUES (3,'YES',1,1,4);
718.     INSERT INTO event_invites
   (id,answer,event_id,owner_id,receiver_id) VALUES (4,'YES',1,1,19);
719.
720.     INSERT INTO friendships (id, user_id_1, user_id_2) VALUES
   (1,2,3);
721.     INSERT INTO friendships (id, user_id_1, user_id_2) VALUES
   (2,4,7);
722.
723.     INSERT INTO event_warnings (id, event_id, receiver_id,
   message) VALUES (1,4,1,"Canceled");
724.
725.     INSERT INTO current_date (id, date) VALUES (1,'2018-04-04
   12:30:19.000000');
726.
```

GRUPO1765, 21/03/2018

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