

Database Systems, CSCI 4380-01
Homework # 6 Answers
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Answers.

```
drop function hw6();

create function hw6() returns void AS $$
DECLARE
    num INTEGER ;
BEGIN
    --a
    alter table events add sport varchar(255);
    alter table events add discipline varchar(255);
    alter table events add stype varchar(6);

    update events set sport = ( SELECT
                                s.name
                                FROM
                                sports s
                                WHERE
                                s.id = events.sid);
    update events set discipline = (SELECT
                                    s.discipline
                                    FROM
                                    sports s
                                    WHERE
                                    s.id = events.sid);
    update events set stype = (SELECT
                               s.stype
                               FROM
                               sports s
                               WHERE
                               s.id = events.sid);

    --b
    alter table events add category varchar(255);

    update events set category = (SELECT
                                   w.etype
                                   FROM
                                   winter_eventcategories w
                                   WHERE
                                   w.eid = events.id);
```

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```
update events set category = (SELECT
                                e2.category
                                FROM
                                events e2
                                WHERE
                                events.etype = e2.etype
                                and events.discipline = e2.discipline
                                and events.name = e2.name
                                and e2.id <> events.id
                                and e2.category is not null
                                )
where events.category is null;

--c

--create table with all 50 events that are dups
create table new_events as (
  SELECT
    e1.*
  FROM
    events e1 inner join (
      SELECT
        e.name
        , e.discipline
        , e.etype
      FROM
        events e
      GROUP BY
        e.name
        , e.discipline
        , e.etype
      HAVING
        count(*) > 1) as e2
  on (e1.name = e2.name
      and e1.discipline = e2.discipline
      and e1.etype = e2.etype
      ));

CREATE TABLE to_keep AS (
  SELECT
    events.*
  FROM
    events);

CREATE TABLE to_delete AS (
  SELECT
    new_events.*
  FROM
    new_events);

-- get just the 25 i want to delete
DELETE FROM to_delete
WHERE id IN
```

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```
(SELECT
    n1.id
FROM
    new_events n1
    , new_events n2
WHERE
    n1.id < n2.id
    and n1.name = n2.name
    and n1.discipline = n2.discipline
    and n1.etype = n2.etype
);

-- get the rest that i want to keep
DELETE FROM to_keep
WHERE id IN
    (SELECT
        d.id
    FROM
        to_delete d
    );

-- fixing winter_medals
UPDATE winter_medals
SET eid = (
    SELECT
        tk.id
    FROM
        to_keep tk
        , to_delete td
    WHERE
        tk.name = td.name
        and tk.discipline = td.discipline
        and tk.etype = td.etype
        and td.id = eid
    )
WHERE eid IN (
    SELECT
        td.id
    FROM
        to_delete td
    WHERE
        td.id = eid
    )
;

-- fixing summer_medals
UPDATE summer_medals
SET eid = (
    SELECT
        tk.id
    FROM
        to_keep tk
        , to_delete td
    WHERE
```

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```
        tk.name = td.name
        and tk.discipline = td.discipline
        and tk.etype = td.etype
        and td.id = eid
    )
WHERE eid IN (
    SELECT
        td.id
    FROM
        to_delete td
    WHERE
        td.id = eid
    )
;

DROP TABLE winter_eventcategories;

-- fixing events
-- (i know this can be done better by altering events as i go, but i
-- wanted to leave it as it was)
DELETE FROM events
WHERE id IN
    (SELECT
        d.id
    FROM
        to_delete d
    );

drop table to_keep;
drop table new_events;
drop table to_delete;

END;
$$ LANGUAGE plpgsql ;
```
