

2a) What are the Top 25 schools (.edu domains)?

```
SELECT ROW_NUMBER() OVER (
    ORDER BY COUNT(email_domain) DESC
) row_num,
email_domain,
COUNT(email_domain) AS num_users
FROM users GROUP BY email_domain ORDER BY COUNT(email_domain) DESC LIMIT 25;
```

row_num	email_domain	num_users
1	ucsd.edu	193
2	cps.edu	55
3	ku.edu	50
4	vt.edu	40
5	oregonstate.edu	38
6	msu.edu	33
7	strathmore.edu	29
8	umich.edu	25
9	u.northwestern.edu	25
10	nyu.edu	23
11	asu.edu	22
12	pace.edu	22
13	berkeley.edu	18
14	ucdavis.edu	17
15	husky.neu.edu	16
16	baylor.edu	16
17	drexel.edu	16
18	g.ucla.edu	15
19	utexas.edu	13
20	ucsc.edu	13
21	case.edu	13
22	monmouth.edu	13
23	colorado.edu	12
24	usc.edu	12
25	uw.edu	12

2b) How many .edu learners are located in New York?

```
SELECT COUNT(*) AS new_york_learners FROM users WHERE city='New York';
```

new_york_learners
50

2c) The `mobile_app` column contains either `mobile-user` or `NULL`. How many of these Codecademy learners are using the mobile app?

```
SELECT COUNT(*) AS num_mobile_users FROM users WHERE mobile_app='mobile-user';
```

	num_mobile_users
▶	330

3) Now, using this function, query for the sign up counts for each hour.

```
SELECT DATE_FORMAT(sign_up_at, '%H') AS hour, COUNT(DATE_FORMAT(sign_up_at, '%H')) AS num_sign_ups FROM users GROUP BY hour ORDER BY hour ASC;
```

	hour	num_sign_ups
▶	00	100
	01	93
	02	73
	03	84
	04	74
	05	29
	06	30
	07	16
	08	18
	09	9
	10	10
	11	13
	12	27
	13	80
	14	101
	15	103
	16	183
	17	174
	18	185
	19	147
	20	138
	21	104
	22	105
	23	104

4a) Do different schools (.edu domains) prefer different courses?

```

CREATE VIEW cpp_learners AS SELECT email_domain, COUNT(learn_cpp) AS cpp FROM users
JOIN progress USING (user_id) WHERE learn_cpp IN ("started", "completed") GROUP BY
email_domain;
CREATE VIEW sql_learners AS SELECT email_domain, COUNT(learn_sql) AS `sql` FROM
users JOIN progress USING (user_id) WHERE learn_sql IN ("started", "completed")
GROUP BY email_domain;
CREATE VIEW html_learners AS SELECT email_domain, COUNT(learn_html) AS html FROM
users JOIN progress USING (user_id) WHERE learn_html IN ("started", "completed")
GROUP BY email_domain;
CREATE VIEW javascript_learners AS SELECT email_domain, COUNT(learn_javascript) AS
javascript FROM users JOIN progress USING (user_id) WHERE learn_javascript IN
("started", "completed") GROUP BY email_domain;
CREATE VIEW java_learners AS SELECT email_domain, COUNT(learn_java) AS java FROM
users JOIN progress USING (user_id) WHERE learn_java IN ("started", "completed")
GROUP BY email_domain;

SELECT DISTINCT email_domain, cpp_learners.cpp, sql_learners.`sql`,
html_learners.html, javascript_learners.javascript, java_learners.java,
    @var_most_popular_num:=GREATEST(COALESCE(cpp_learners.cpp, 0),
COALESCE(sql_learners.`sql`, 0), COALESCE(html_learners.html, 0),
COALESCE(javascript_learners.javascript, 0), COALESCE(java_learners.java,0)) AS
most_popular_num,
    CASE @var_most_popular_num
        WHEN cpp THEN 'cpp'
        WHEN `sql` THEN 'sql'
        WHEN html THEN 'html'
        WHEN javascript THEN 'javascript'
        WHEN java THEN 'java'
    END AS most_popular_course
FROM users LEFT JOIN cpp_learners USING (email_domain)
JOIN sql_learners USING (email_domain)
JOIN html_learners USING (email_domain)
JOIN javascript_learners USING (email_domain)
JOIN java_learners USING (email_domain)
ORDER BY email_domain ASC;

```

(results on next page)

	email_domain	cpp	sql	html	javascript	java	most_popular_n...	most_popular_cour...	
▶	alaska.edu	2	2	2	1	1	2	cpp	
	aps.edu	3	3	2	2	1	3	cpp	
	asu.edu	7	6	7	7	6	7	cpp	
	auburn.edu	2	4	3	5	1	5	javascript	
	baker.edu	1	1	1	1	1	1	cpp	
	baylor.edu	5	13	5	8	2	13	sql	
	berkeley.edu	7	10	8	10	5	10	sql	
	bethelu.edu	1	1	1	1	1	1	cpp	
	biola.edu	NULL	2	2	2	2	2	sql	
	brandeis.edu	2	1	2	2	1	2	cpp	
	bsu.edu	4	3	3	4	2	4	cpp	
	bu.edu	2	5	2	3	3	5	sql	
	buffalo.edu	1	5	1	2	1	5	sql	
	byui.edu	3	2	2	3	1	3	cpp	
	calpoly.edu	1	3	1	2	2	3	sql	
	colorado.edu	9	5	6	8	5	9	cpp	
	columbia.edu	5	3	3	5	2	5	cpp	
	cps.edu	23	28	16	25	13	28	sql	
	creighton.edu	2	1	1	2	1	2	cpp	
	crimson.ua.edu	1	1	2	2	2	2	html	
	csp.edu	1	1	1	1	1	1	cpp	
	depauw.edu	1	1	1	1	1	1	cpp	
	drexel.edu	6	8	4	6	3	8	sql	
	email.arizona.edu	4	3	2	3	2	4	cpp	
	eng.ucsd.edu	4	3	3	4	2	4	cpp	
	essec.edu	3	3	3	2	1	3	cpp	
	fiu.edu	4	5	5	3	3	5	sql	
	fordham.edu	2	2	3	3	3	3	html	
	g.rit.edu	2	1	2	2	1	2	cpp	
	g.ucla.edu	6	6	7	7	2	7	html	
	georgetown.edu	4	3	4	5	1	5	javascript	
	hawaii.edu	1	1	1	1	1	1	cpp	
	hawk.iit.edu	2	3	2	5	1	5	javascript	
	hec.edu	1	2	1	2	1	2	sql	
	husky.neu.edu	8	6	7	11	8	11	javascript	
	iastate.edu	3	3	2	1	1	3	cpp	
	illinois.edu	5	4	4	8	2	8	javascript	
	iu.edu	3	3	3	5	3	5	javascript	
	iwcc.edu	NULL	1	1	1	1	1	sql	
	kent.edu	3	5	1	3	1	5	sql	
	knights.ucf.edu	2	3	2	3	2	3	sql	
	ku.edu	22	25	12	25	8	25	sql	
	loyola.edu	NULL	1	1	1	1	1	sql	
	mail.citytech.cuny.edu	1	2	1	2	1	2	sql	
	mail.greenriver.edu	1	2	1	4	2	4	javascript	
	mail.nmc.edu	2	1	2	1	1	2	cpp	
	mail.uc.edu	1	3	4	2	1	4	html	
	mail.usf.edu	3	5	6	4	1	6	html	
	maine.edu	2	3	1	2	2	3	sql	
	mca.edu	1	1	1	1	1	1	cpp	
	miamioh.edu	3	6	2	5	1	6	sql	
	middlebury.edu	1	1	1	1	1	1	cpp	
	minerva.kgi.edu	1	1	1	1	1	1	cpp	

(...)

4b) What courses are the New Yorkers students taking?

```
SELECT SUM(CASE WHEN learn_cpp IN ("started", "completed") THEN 1 ELSE 0 END) AS
cpp,
      SUM(CASE WHEN learn_sql IN ("started", "completed") THEN 1 ELSE 0 END) AS
`sql`,
      SUM(CASE WHEN learn_html IN ("started", "completed") THEN 1 ELSE 0 END) AS html,
      SUM(CASE WHEN learn_javascript IN ("started", "completed") THEN 1 ELSE 0 END) AS
javascript,
      SUM(CASE WHEN learn_java IN ("started", "completed") THEN 1 ELSE 0 END) AS java,
      COUNT(*) AS total
      FROM users JOIN progress USING(user_id) WHERE city="New York";
```

	cpp	sql	html	javascript	java	total
▶	16	25	14	29	8	50

4c) What courses are the Chicago students taking?

```
SELECT * FROM users JOIN progress USING(user_id) WHERE city="Chicago";SELECT
SUM(CASE WHEN learn_cpp IN ("started", "completed") THEN 1 ELSE 0 END) AS cpp,
      SUM(CASE WHEN learn_sql IN ("started", "completed") THEN 1 ELSE 0 END) AS
`sql`,
      SUM(CASE WHEN learn_html IN ("started", "completed") THEN 1 ELSE 0 END) AS html,
      SUM(CASE WHEN learn_javascript IN ("started", "completed") THEN 1 ELSE 0 END) AS
javascript,
      SUM(CASE WHEN learn_java IN ("started", "completed") THEN 1 ELSE 0 END) AS java,
      COUNT(*) AS total
      FROM users JOIN progress USING(user_id) WHERE city="Chicago";
```

	cpp	sql	html	javascript	java	total
▶	37	42	29	46	16	92