Name: Group 2 (Emily, Kevin, Qianbing)

Assignment 3

Sample questions:

- -- students with the highest marks in Unit 4
- -- students scored between 89 and 100 unit4

Open ended questions:

- -- Take a closer look at the tables that you created and come up with 10 different scenarios/ questions and form ${\tt SQL}$
- 1. From student marks, delete the id column
- 2. From student marks, format unit 2 from highest to lowest
- 3. Only show students who got score of 100 in unit 5
- 4. Only show students whose scores are over 95 in all units
- 5. Find the mean unit 2 score of the first 10 students.
- 6. Show students who scored between 90-93 on unit 3
- 7. From student, format names in alphabetical order
- 8. Show only female students
- 9. Show students with a google email
- 10. Show students whose phone number has '232' as the first 3 numbers or $4^{\rm th}\text{-}6^{\rm th}$ numbers

```
DROP TABLE IF EXISTS student;
CREATE TABLE student
     id serial PRIMARY KEY,
      first_name character varying,
      last_name character varying,
     email character varying,
      gender character varying,
     work_phone character varying,
      book_preference_hardcopy boolean
Data Output
                                          gender work_phone character varying
                                                             book_preference_hardcopy
                         email character varying
        first_name
                 last_name
                character varying
        character varying
   copy student(first_name,last_name,email,gender,work_phone,book_preference_hardcopy)
 2 from 'C:\Users\emily\Downloads\Everup\Unit 5\HW3_Student_data-2.csv'
```

dvdrental/postgres@PostgreSQL 13 ✓ Data Output work_phone book_preference_hardcopy first_name last_name gender [PK] integer character varying character varying character varying character varying 261 261 Hershel Marflitt hmarflitt78@canalblog.com Male 828-580-5905 262 262 Ailene Rosenbaum arosenbaum79@smugmug.com 904-681-8119 false 263 263 Radcliffe 105-192-4744 Egre 264 Theressa Kirrens tkirrens7b@cocolog-nifty.com Female 514-577-6409 true 265 265 Sergei Manlow smanlow7c@imdb.com Male 324-194-4334 true Colthard Female 578-637-0107 266 266 Jocelin jcolthard7d@jiathis.com true 267 267 Sammie McVeigh smcveigh7e@sitemeter.com Male 262-942-1129 true 268 lbeteriss7f@intel.com Female 217-959-1568 268 Louisa Beteriss false 269 269 Jessy Bridgett jbridgett7g@a8.net Female 879-821-9278 true 270 270 Jeffv Ariss jariss7h@live.com Male 812-148-7993 false 271 271 Esmaria Antill eantill7i@unicef.org Female 487-660-3579 false 272 272 Marion Rosenbloom mrosenbloom7j@tripod.com Male 913-172-3715 273 Gritten 369-202-5025 ggritten7k@bbb.org 274 rphetteplace7l@php.net 896-828-8543 275 434-437-6842 gollett7m@theguardian.com Male 276 Nesta Hanbury-Brown nhanburybrown7n@house.gov 769-802-4999 Female Query History Explain Messages Notifications Scratch Pad

- copy student(first_name,last_name,email,gender,work_phone,book_preference_hardcopy)
- 2 from 'C:\Users\emily\Downloads\Everup\Unit 5\student_data.csv'
- 3 delimiter ',' CSV header

Query Editor Query History Explain Messages Notifications Scratch Pad

```
DROP TABLE IF EXISTS student_marks;
1
2
    CREATE TABLE student_marks
3
        id serial PRIMARY KEY,
4
        student_reg_id integer,
5
        student_id integer,
6
        unit2 integer,
7
        unit3 integer,
8
        unit4 integer,
9
        unit5 integer
10
11
    );
```

Data Output

4	id [PK] integer	student_reg_id integer	student_id integer	unit2 integer	unit3 integer	unit4 integer	unit5 integer	Ø*

- copy student_marks(student_reg_id,student_id,unit2,unit3,unit4,unit5)
- 2 from 'C:\Users\emily\Downloads\Everup\Unit 5\student_marks.csv'
- 3 delimiter ',' CSV header

4	id [PK] integer	student_reg_id integer	student_id integer	unit2 integer	unit3 integer	unit4 integer	unit5 integer
1	1	853	1	88	96	87	92
2	2	854	2	86	99	82	95
3	3	855	3	86	95	99	95
4	4	856	4	98	98	89	100
5	5	857	5	100	94	83	95
6	6	858	6	97	91	93	88
7	7	859	7	92	97	97	98
8	8	860	8	86	97	92	88
9	9	861	9	89	97	82	97
10	10	862	10	96	96	96	90
11	11	863	11	85	95	97	99
12	12	864	12	92	93	92	93
13	13	865	13	98	93	98	90
14	14	866	14	100	100	87	100
15	15	867	15	85	99	83	97
17	17	000	17	00	00	01	00

4	student_reg_id integer	student_id integer	unit4 integer ▲
1	1556	704	100
2	1822	970	100
3	961	109	100
4	1280	428	100
5	900	48	100
6	901	49	100
7	1011	159	100
8	1794	942	100
9	981	129	100
10	1294	442	100
11	1274	422	100
12	1584	732	100
13	1081	229	100
14	1467	615	100
15	1742	890	100
14	1661	010	100

¹ SELECT student_reg_id, student_id, unit4 FROM student_marks

² ORDER BY unit4 DESC

4	student_reg_id integer	student_id integer	unit4 integer
1	855	3	99
2	856	4	89
3	858	6	93
4	859	7	97
5	860	8	92
6	862	10	96
7	863	11	97
8	864	12	92
9	865	13	98
10	868	16	91
11	869	17	98
12	871	19	98
13	873	21	92
14	874	22	90
15	877	25	93
16	070	דר	0.4

¹ SELECT student_reg_id, student_id, unit4 FROM student_marks

² WHERE unit4 BETWEEN 89 and 100

4	student_reg_id integer	student_id integer	unit2 integer ▲	unit3 integer	unit4 integer	unit5 integer ▲
1	853	1	88	96	87	92
2	854	2	86	99	82	95
3	855	3	86	95	99	95
4	856	4	98	98	89	100
5	857	5	100	94	83	95
6	858	6	97	91	93	88
7	859	7	92	97	97	98
8	860	8	86	97	92	88
9	861	9	89	97	82	97
10	862	10	96	96	96	90
11	863	11	85	95	97	99
12	864	12	92	93	92	93
13	865	13	98	93	98	90
14	866	14	100	100	87	100
15	867	15	85	99	83	97
14	040	14	იი	00	01	0.6

¹ ALTER TABLE student_marks

² DROP COLUMN ID;

4	student_reg_id integer	student_id integer	unit2 integer	unit3 integer	unit4 integer	unit5 integer
1	1202	350	100	99	95	97
2	1045	193	100	90	94	94
3	1509	657	100	90	84	98
4	1191	339	100	96	98	88
5	1720	868	100	96	100	99
6	921	69	100	96	99	95
7	1850	998	100	95	84	90
8	1469	617	100	100	99	89
9	1180	328	100	100	82	94
10	1521	669	100	96	88	91
11	869	17	100	94	98	90
12	1733	881	100	92	94	91
13	1032	180	100	98	88	95
14	1532	680	100	93	85	92
15	1825	973	100	99	83	100
16	1205	450	100	100	06	۲۸

¹ SELECT*FROM student_marks

² ORDER BY unit2 DESC

4	student_reg_id integer	student_id integer	unit5 integer
0/	1000	/98	100
68	1666	814	100
69	1675	823	100
70	1727	875	100
71	1736	884	100
72	1741	889	100
73	1754	902	100
74	1772	920	100
75	1775	923	100
76	1776	924	100
77	1781	929	100
78	1800	948	100
79	1806	954	100
80	1825	973	100
81	1829	977	100
82	1840	988	100

Query Editor Query History Explain Messages No

- 1 SELECT student_reg_id,student_id,unit5
- 2 FROM student_marks
- 3 WHERE unit5=100

4	student_reg_id integer	student_id integer	unit2 integer	unit3 integer	unit4 integer ▲	unit5 integer ▲
4	901	109	90	97	100	100
3	1006	154	99	97	97	98
4	1212	360	96	100	100	98
5	1229	377	98	98	96	100
6	1231	379	100	98	98	96
7	1292	440	97	98	98	99
8	1297	445	98	97	97	100
9	1305	453	100	100	96	97
10	1377	525	99	98	97	100
11	1389	537	97	96	99	96
12	1442	590	98	97	98	98
13	1443	591	99	96	97	100
14	1535	683	97	98	96	96
15	1664	812	97	100	100	97
16	1720	868	100	96	100	99
17	1726	874	98	97	97	98

Query Editor Query History Explain Messages Notifications Scratch Pad

- 1 SELECT student_reg_id,student_id,unit2,unit3,unit4,unit5
- 2 FROM student_marks
- 3 WHERE unit2>95 AND unit3>95 AND unit4>95 AND unit5>95

Data Output

4	avg numeric
1	91.8000000000000000

Query Editor Query History Explain Messages Notifications Scratch Pad

1 SELECT AVG(unit2) FROM student_marks WHERE student_id<11

Data Output

4	student_reg_id integer	student_id integer	unit3 integer ♣
73	1478	626	93
74	1416	564	93
75	1136	284	93
76	1375	523	93
77	913	61	93
78	1141	289	93
79	1618	766	93
80	1643	791	92
81	1636	784	92
82	1324	472	92
83	1634	782	92
84	977	125	92
85	1632	780	92
86	1355	503	92
87	1356	504	92
88	1363	511	92

Query Editor Query History Explain Messages No

- 1 SELECT student_reg_id,student_id,unit3
- 2 FROM student_marks
- 3 WHERE unit3 BETWEEN 90 AND 93
- 4 ORDER BY unit3 DESC;

4	id [PK] integer ♪	first_name character varying	last_name character varying	email character varying	gender character varying	work_phone character varying	book_preference_hardcopy boolean
1	100	Abbey	Stollman	astollman2r@google.com.br	Male	865-618-2319	false
2	113	Abby	Shone	ashone34@nyu.edu	Female	975-857-3640	false
3	40	Abel	Beeching	abeeching13@europa.eu	Male	413-526-4804	true
4	54	Abigale	Boik	aboik1h@forbes.com	Female	300-315-7186	true
5	507	Abner	Downes	adownese2@smugmug.com	Male	508-117-5635	true
6	512	Aggle	Antcliffe	aantcliffee7@nps.gov	Female	302-764-1212	true
7	719	Agna	Tappington	atappingtonjy@examiner.com	Female	983-173-7321	false
8	514	Aguistin	Thornley	athornleye9@stumbleupon.com	Male	103-649-0469	true
9	335	Ahmed	Chichgar	achichgar9a@pen.io	Male	387-495-3353	true
10	450	Aida	Ivashnikov	aivashnikovch@oakley.com	Female	322-188-2668	true
11	473	Ailee	Bruckent	abruckentd4@privacy.gov.au	Female	821-757-3151	false
12	262	Ailene	Rosenbaum	arosenbaum79@smugmug.com	Female	904-681-8119	false
13	481	Ailina	Detloff	adetloffdc@xing.com	Female	372-680-5515	false
14	496	Alana	Lathwood	alathwooddr@bloglovin.com	Female	278-285-5437	false
15	579	Alana	Treagus	atreagusg2@twitpic.com	Female	285-522-4390	true
76	402	Alonoon	Maddenther	amamouthoda@adaaldaaasiki.co	Mala	E40 200 1200	4

Query Editor Query History Explain Messages Notifications Scratch Pad

- 1 SELECT*FROM student
- 2 ORDER BY first_name ASC, last_name ASC

Data Output

4 01	Id [PK] integer	first_name character varying	character varying	email character varying	gender character varying Female	work_phone character varying 445-948-5615	book_preference_hardcopy boolean true
		ingria	Luney	iiuneyqw@tnemetorest.net			
462			De Carlo	jdecarlor0@ft.com	Female	447-317-6804	true
463	974	Blinnie	Caban	bcabanr1@photobucket.com	Female	628-115-5678	false
464	977	Nomi	Shurville	nshurviller4@naver.com	Female	393-229-1884	true
465	978	Minna	Dawdry	mdawdryr5@jugem.jp	Female	285-923-7932	false
466	979	Roz	Burrett	rburrettr6@godaddy.com	Female	520-815-9474	false
467	980	Chandal	Seiler	cseilerr7@privacy.gov.au	Female	909-345-0764	false
468	983	Olympia	Philippon	ophilipponra@wp.com	Female	862-893-2362	true
469	986	Madella	Gear	mgearrd@posterous.com	Female	450-720-3156	true
470	990	Sharona	Letcher	sletcherrh@cnbc.com	Female	657-823-1894	true
471	992	Layne	Beneteau	lbeneteaurj@blog.com	Female	234-787-4858	false
472	993	Cybil	Swainston	cswainstonrk@purevolume.com	Female	254-549-4202	false
473	994	Chryste	Oakland	coaklandrl@wired.com	Female	324-544-8580	false
474	995	Brynn	Starten	bstartenrm@hubpages.com	Female	732-792-2013	false
475	999	Anet	Tilne	atilnerq@bloglovin.com	Female	556-891-1055	true

- 1 SELECT*FROM student
 2 WHERE gender='Female'

_ 4	id [PK] integer	first_name character varying Sidonia	last_name character varying Kaas	email character varying skaastj@google.ni	gender character varying remaie	work_phone character varying 158-941-7104
29	565	Olenolin	July	ojulyfo@google.co.uk	Male	220-296-5239
30	577	Nevil	Prowse nprowseg0@googl		Male	985-522-5277
31	602	Sven	Conklin	sconklingp@google.com.hk	Male	644-321-3993
32	624	Jarrad	Treat	Jtreathb@google.pl	Male	305-797-5455
33	645	Tonya	Boldt	tboldthw@google.cn	Female	334-867-9546
34	682	Margo	Derdes	mderdesix@google.it	Female	414-349-7954
35	730	Marioe	Aldersea	malderseak9@google.nl	Female	299-490-5257
36	764	Rhona	Sidey	rsideyl7@google.es	Female	499-195-1178
37	800	Gabriella	Whatmough	gwhatmoughm7@google.fr	Female	724-646-0094
38	819	Allister	Persse	aperssemq@google.fr	Male	207-361-8991
39	822	Georgena	Bolley	gbolleymt@google.co.uk	Female	323-983-1173
40	847	Olympie	Teasdale-Markie	oteasdalemarkleni@google.it	Female	645-230-7995
41	934	Glory	Hallas	ghallaspx@google.it	Female	979-784-1419
42	968	Cirstoforo	Fader	cfaderqv@google.es	Male	324-970-7744

Query Editor Query History Explain Messages Notifications Scratch Pad

- 1 SELECT id, first_name, last_name, email, gender, work_phone
- 2 FROM student
- 3 WHERE email LIKE '%google%'

Data Output

4	ld [PK] integer	first_name character varying	last_name character varying	email character varying	gender character varying	work_phone character varying	book_preference_hardcopy poolean
1	102	Harriet	Gebbe	hgebbe2t@oaic.gov.au	Female	232-537-7904	true
2	293	Una	Beamson	ubeamson84@ca.gov	Female	232-371-0231	true
3	306	Margette	Wernm	mwemm8h@arizona.edu	Female	232-675-3311	false
4	570	Whittaker	Blencoe	wblencoeft@usa.gov	Male	232-522-3052	true

- 1 SELECT id, first_name, last_name, email, gender, work_phone, book_preference_hardcopy
- 2 FROM student
- 3 WHERE work_phone LIKE '232%'