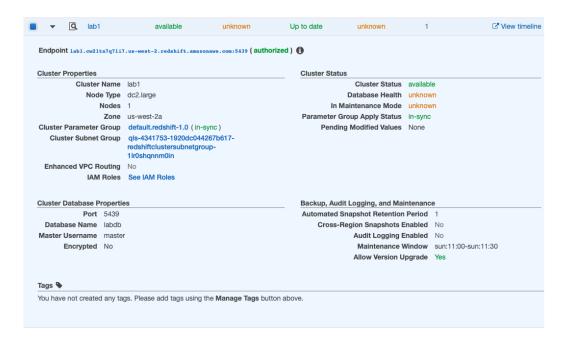# QwikLab: Intro to Amazon Redshift
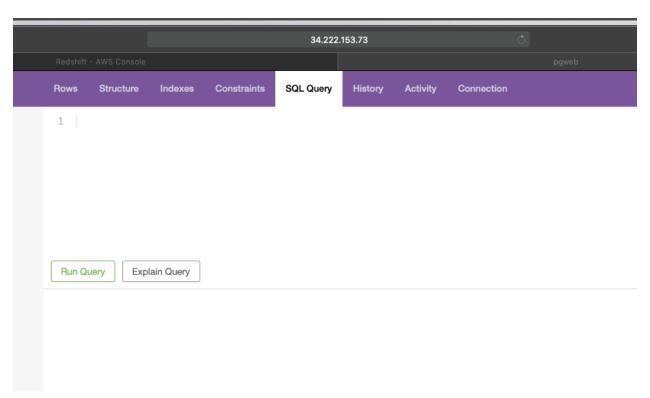
Task 1: Launch an Amazon Redshift Cluster
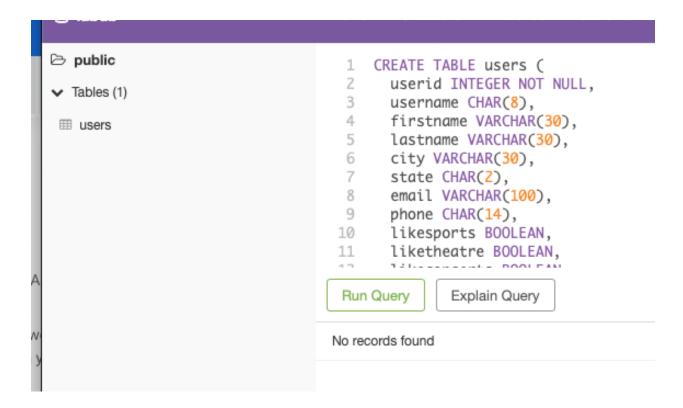
Create Redshift Cluster

Task 2: Launch Pgweb to Communicate with your Redshift Cluster

Amazon Redshift can be used via industry-standard SQL
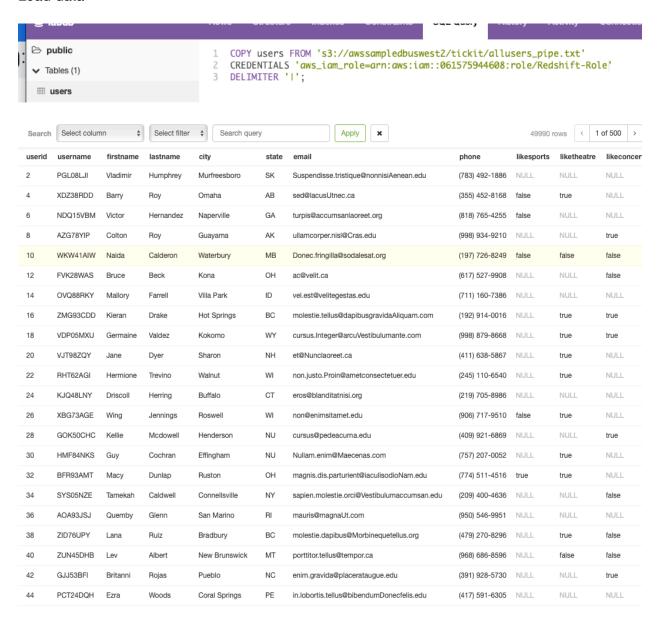Open pgweb then connect to labdb

Task 3: Create a Table

```
1  CREATE TABLE users (
2      userid INTEGER NOT NULL,
3      username CHAR(8),
4      firstname VARCHAR(30),
5      lastname VARCHAR(30),
6      city VARCHAR(30),
7      state CHAR(2),
8      email VARCHAR(100),
9      phone CHAR(14),
10     likesports BOOLEAN,
11     liketheatre BOOLEAN,
```

Run Query   Explain Query

No records found

User structure

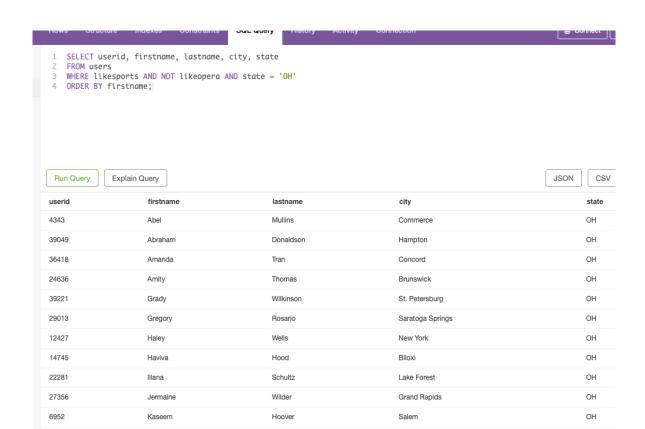|	Rows	Structure	Indexes	Constraints	SQL Query	History	Activity	Connection		Connect	Disconnect
public	column_name	data_type		is_nullable	character_maximum_length		character_set_catalog		column_default		
Tables (1)	likemusicals	boolean		YES	NULL		NULL		NULL		
users	likebroadway	boolean		YES	NULL		NULL		NULL		
	likevegas	boolean		YES	NULL		NULL		NULL		
	likerock	boolean		YES	NULL		NULL		NULL		
	likeopera	boolean		YES	NULL		NULL		NULL		
	likeclassical	boolean		YES	NULL		NULL		NULL		
	likejazz	boolean		YES	NULL		NULL		NULL		
	likeconcerts	boolean		YES	NULL		NULL		NULL		
	liketheatre	boolean		YES	NULL		NULL		NULL		
	likesports	boolean		YES	NULL		NULL		NULL		
	userid	integer		NO	NULL		NULL		NULL		
	phone	character		YES	14		NULL		NULL		
	state	character		YES	2		NULL		NULL		
	username	character		YES	8		NULL		NULL		
	email	character varying		YES	100		NULL		NULL		
	city	character varying		YES	30		NULL		NULL		
	lastname	character varying		YES	30		NULL		NULL		
	firstname	character varying		YES	30		NULL		NULL		

Task 4: Load Sample Data from Amazon S3

Load data

```
1  COPY users FROM 's3://awssampledbuswest2/tickit/allusers_pipe.txt'
2  CREDENTIALS 'aws_iam_role=arn:aws:iam::061575944608:role/Redshift-Role'
3  DELIMITER '|';
```

public

∨ Tables (1)

⊞ users

Search | Select column ⇅ | Select filter ⇅ | Search query | Apply | ✖ | 49990 rows | ‹ | 1 of 500 | ›

userid	username	firstname	lastname	city	state	email	phone	likesports	liketheatre	likeconcer
2	PGL08LJI	Vladimir	Humphrey	Murfreesboro	SK	Suspendisse.tristique@nonnisiAenean.edu	(783) 492-1886	NULL	NULL	NULL
4	XDZ38RDD	Barry	Roy	Omaha	AB	sed@lacusUtnec.ca	(355) 452-8168	false	true	NULL
6	NDQ15VBM	Victor	Hernandez	Naperville	GA	turpis@accumsanlaoreet.org	(818) 765-4255	false	NULL	NULL
8	AZG78YIP	Colton	Roy	Guayama	AK	ullamcorper.nisl@Cras.edu	(998) 934-9210	NULL	NULL	true
10	WKW41AIW	Naida	Calderon	Waterbury	MB	Donec.fringilla@sodalesat.org	(197) 726-8249	false	false	false
12	FVK28WAS	Bruce	Beck	Kona	OH	ac@velit.ca	(617) 527-9908	NULL	NULL	false
14	OVQ88RKY	Mallory	Farrell	Villa Park	ID	vel.est@velitegestas.edu	(711) 160-7386	NULL	NULL	NULL
16	ZMG93CDD	Kieran	Drake	Hot Springs	BC	molestie.tellus@dapibusgravidaAliquam.com	(192) 914-0016	NULL	true	true
18	VDP05MXU	Germaine	Valdez	Kokomo	WY	cursus.Integer@arcuVestibulumante.com	(998) 879-8668	NULL	true	true
20	VJT98ZQY	Jane	Dyer	Sharon	NH	et@Nunclaoreet.ca	(411) 638-5867	NULL	true	NULL
22	RHT62AGI	Hermione	Trevino	Walnut	WI	non.justo.Proin@ametconsectetuer.edu	(245) 110-6540	NULL	true	NULL
24	KJQ48LNY	Driscoll	Herring	Buffalo	CT	eros@blanditatnisi.org	(219) 705-8986	NULL	NULL	NULL
26	XBG73AGE	Wing	Jennings	Roswell	WI	non@enimsitamet.edu	(906) 717-9510	false	true	NULL
28	GOK50CHC	Kellie	Mcdowell	Henderson	NU	cursus@pedeacurna.edu	(409) 921-6869	NULL	NULL	true
30	HMF84NKS	Guy	Cochran	Effingham	NU	Nullam.enim@Maecenas.com	(757) 207-0052	NULL	true	NULL
32	BFR93AMT	Macy	Dunlap	Ruston	OH	magnis.dis.parturient@iaculisodioNam.edu	(774) 511-4516	true	true	NULL
34	SYS05NZE	Tamekah	Caldwell	Connellsville	NY	sapien.molestie.orci@Vestibulumaccumsan.edu	(209) 400-4636	NULL	NULL	false
36	AOA93JSJ	Quemby	Glenn	San Marino	RI	mauris@magnaUt.com	(950) 546-9951	NULL	NULL	NULL
38	ZID76UPY	Lana	Ruiz	Bradbury	BC	molestie.dapibus@Morbinequetellus.org	(479) 270-8296	NULL	true	false
40	ZUN45DHB	Lev	Albert	New Brunswick	MT	porttitor.tellus@tempor.ca	(968) 686-8596	NULL	false	false
42	GJJ53BFI	Britanni	Rojas	Pueblo	NC	enim.gravida@placerataugue.edu	(391) 928-5730	NULL	NULL	true
44	PCT24DQH	Ezra	Woods	Coral Springs	PE	in.lobortis.tellus@bibendumDonecfelis.edu	(417) 591-6305	NULL	NULL	NULL

Task 5: Query Data

```
SELECT COUNT(*) FROM users;
```

```
1  SELECT COUNT(*) FROM users;
```

Run Query   Explain Query

count
49990

```
SELECT userid, firstname, lastname, city, state
FROM users
WHERE likesports AND NOT likeopera AND state = 'OH'
```

```
1  SELECT userid, firstname, lastname, city, state
2  FROM users
3  WHERE likesports AND NOT likeopera AND state = 'OH'
4  ORDER BY firstname;
```

Run Query   Explain Query   JSON   CSV

userid	firstname	lastname	city	state
4343	Abel	Mullins	Commerce	OH
39049	Abraham	Donaldson	Hampton	OH
36418	Amanda	Tran	Concord	OH
24636	Amity	Thomas	Brunswick	OH
39221	Grady	Wilkinson	St. Petersburg	OH
29013	Gregory	Rosario	Saratoga Springs	OH
12427	Haley	Wells	New York	OH
14745	Haviva	Hood	Biloxi	OH
22281	Illana	Schultz	Lake Forest	OH
27356	Jermaine	Wilder	Grand Rapids	OH
6952	Kaseem	Hoover	Salem	OH

```
ORDER BY firstname;
SELECT
  city,
  COUNT(*) AS count
FROM users
WHERE likejazz
GROUP BY city
ORDER BY count DESC
LIMIT 10;
```

```
1   SELECT
2     city,
3     COUNT(*) AS count
4   FROM users
5   WHERE likejazz
6   GROUP BY city
7   ORDER BY count DESC
8   LIMIT 10;
```

Run Query   Explain Query

city	count
Dover	33
Charleston	30
Hartford	28
Concord	27
Springfield	26
Richmond	24
Jackson	23
Aliquippa	23
Columbus	23
Orangeburg	23