

DATA 201

Database Technologies for Data Analytics

Access the Remote School Database Server
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We Have a Shared Remote Database Server!

- ❑ The server's hostname is **IES-ADS-ClassDB.sjsu.edu**
- ❑ This is an internal SJSU server, so it is directly accessible only if you are on campus.
- ❑ Therefore, to access it off campus (such as from your home), you need to be on SJSU's virtual private network (VPN) which will put you virtually on campus.
 - See the next few slides.

Install VPN

- ❑ For instructions on how to download and install Cisco's VPN client software:

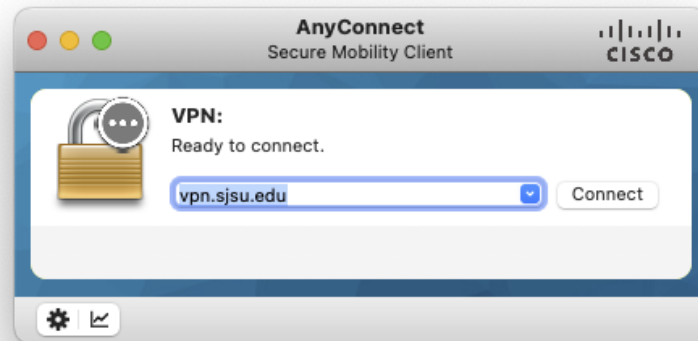
<https://www.sjsu.edu/it/services/network/vpn.php>

- For GROUP, you should select “Student-SSO” (single sign-on)
- You will be prompted for two-factor identification.

I installed VPN years ago as a faculty member.
I hope the installation as a student goes well.

Connect to VPN

- ❑ After you've successfully installed the VPN client, start it and connect:



When You're Connected via VPN

- ❑ You will be able to access the internal SJSU server **IES-ADS-ClassDB.sjsu.edu** (and other internal university servers).
- ❑ Because now your local machine is virtually on campus, you might no longer be able to access devices on your home network, such as printers, until you disconnect from VPN.

Team Databases

- ❑ Each team has a team database and a team user on the remote server.
 - For example, for team “Data Squad”:
 - ❑ Database name: `datasquad_db`
 - ❑ User name: `datasquad_user`
 - ❑ Python connection file: `datasquad.ini`
- ❑ I will email each team’s `.ini` connection file to the team members.
 - The connection file will contain the user password.
 - Use Python and the connection file to connect to the team database.

Team Project Databases, *cont'd*

- ❑ As a placeholder, the school database tables are in each team's database.
- ❑ After you confirm that you can connect and see the tables, you can drop those tables.
- ❑ You can use MySQL Workbench or Python code to create and load your own tables.
- ❑ You can also create additional users.

Python Connection to Your Team Database

□ Example (Team Data Squad):

datasquad.ini

```
[mysql]
host = IES-ADS-ClassDB.sjsu.edu
database = datasquad_db
user = datasquad_user
password = Team Data Squad's password
```

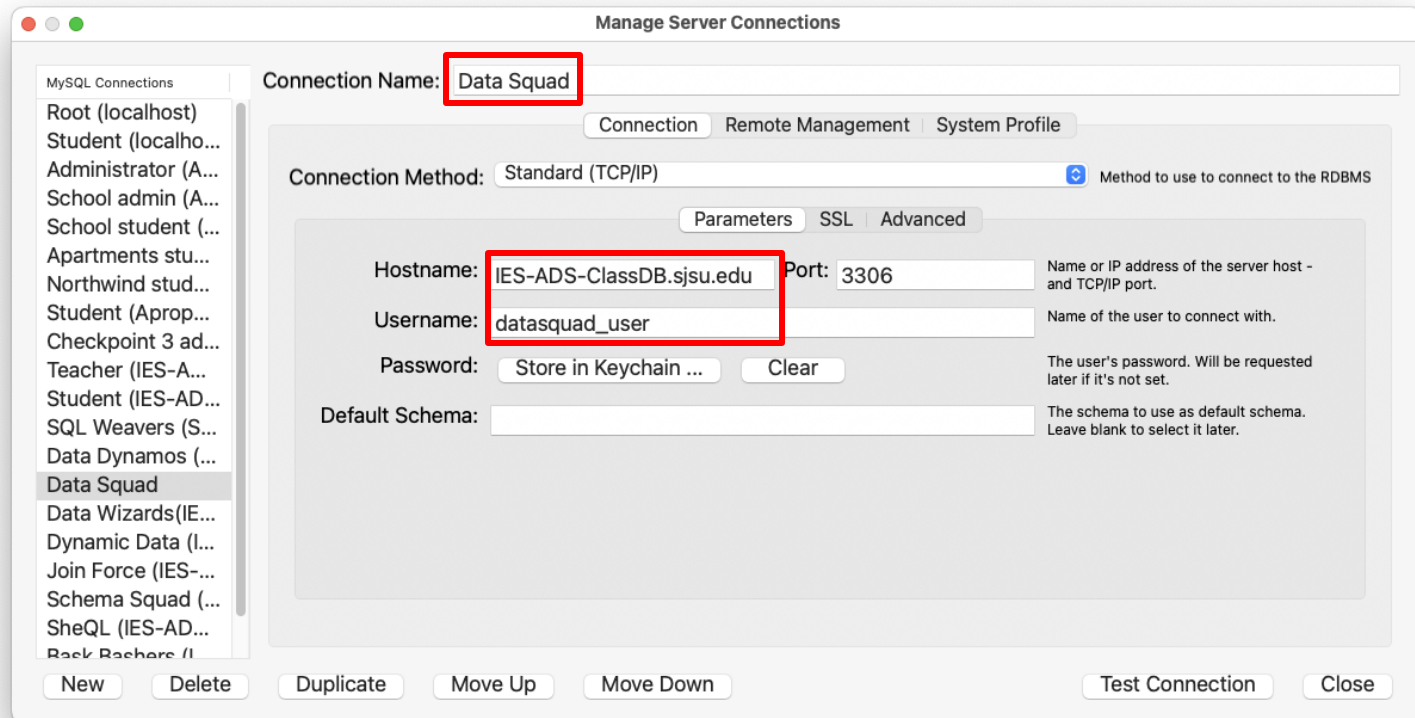
```
[1]: from data201 import db_connection, df_query
```

```
[2]: conn = db_connection('datasquad.ini')
df = df_query(conn, 'SELECT * FROM teacher')
display(df)
conn.close
```

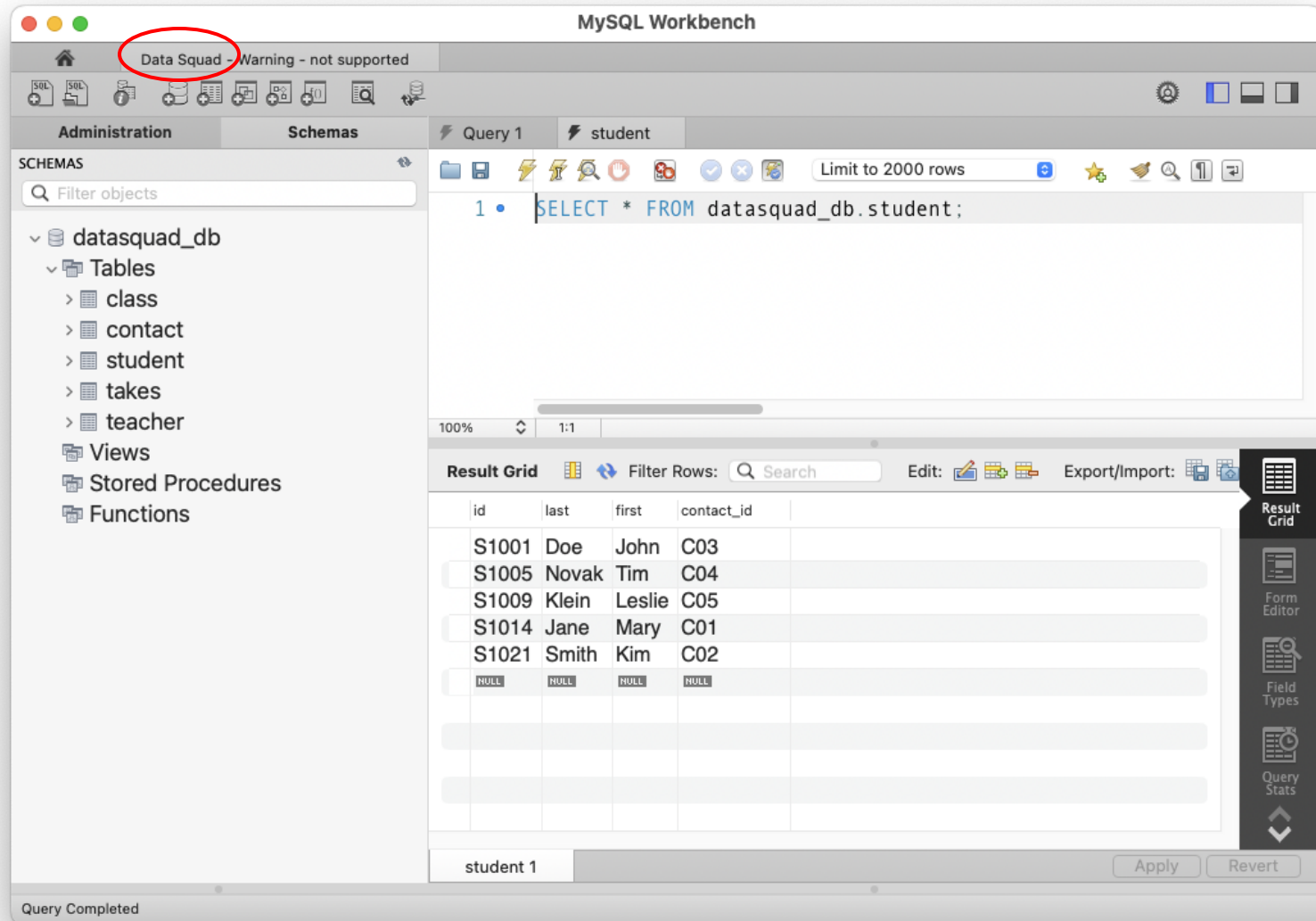
	id	last	first	contact_id
0	T7003	Rogers	Pat	C06
1	T7008	Thompson	Sidney	C07
2	T7012	Lane	John	C08
3	T7051	Flynn	Mabel	C09

Create a MySQL Workbench Connection

- Use the information in the connection file to create a MySQL Workbench connection to the team database.



MySQL Workbench Connection, *cont'd*



Team Databases, *cont'd*

- ❑ You should only be able to see your team's database on the server.
 - You can create new users for your database.
 - But you can't create new databases.
 - Let me know if your team needs a new database on the server.

- ❑ Later in the semester, each team will also get a data warehouse on the server for data analysis.

Why the Remote School Server?

- ❑ Practice using a truly remote database server rather than one installed locally.
 - Experience real network latencies.
- ❑ A shared database accessible by each team member.
 - No need to create and pass out database dump files.
- ❑ Your final project will be on the remote server.
 - In the meantime, it's available for you to use for your assignments, etc.