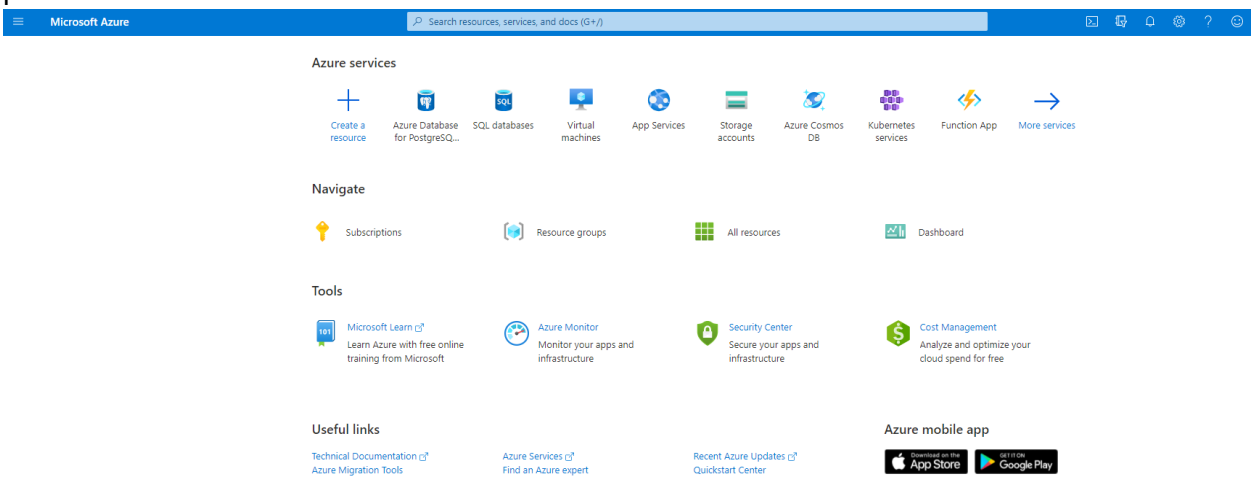
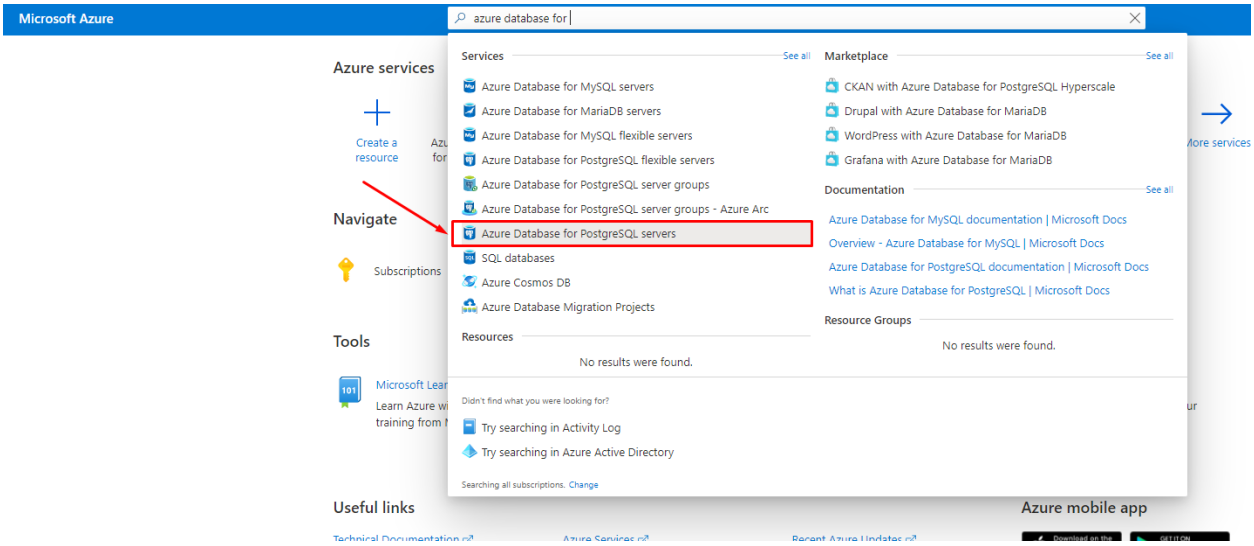
Create a Postgres Database on Azure

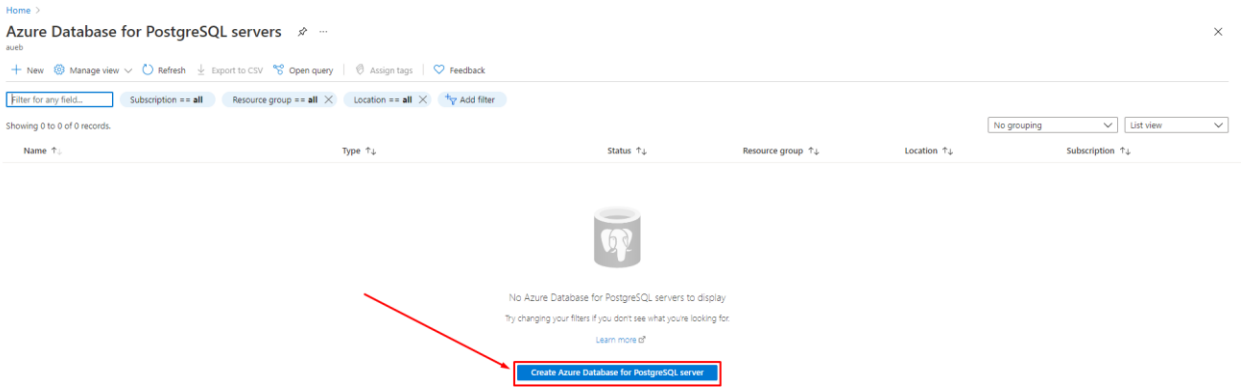
Step 1: Go to Microsoft Azure Home page : link (After you have logged in). You should see your panel.



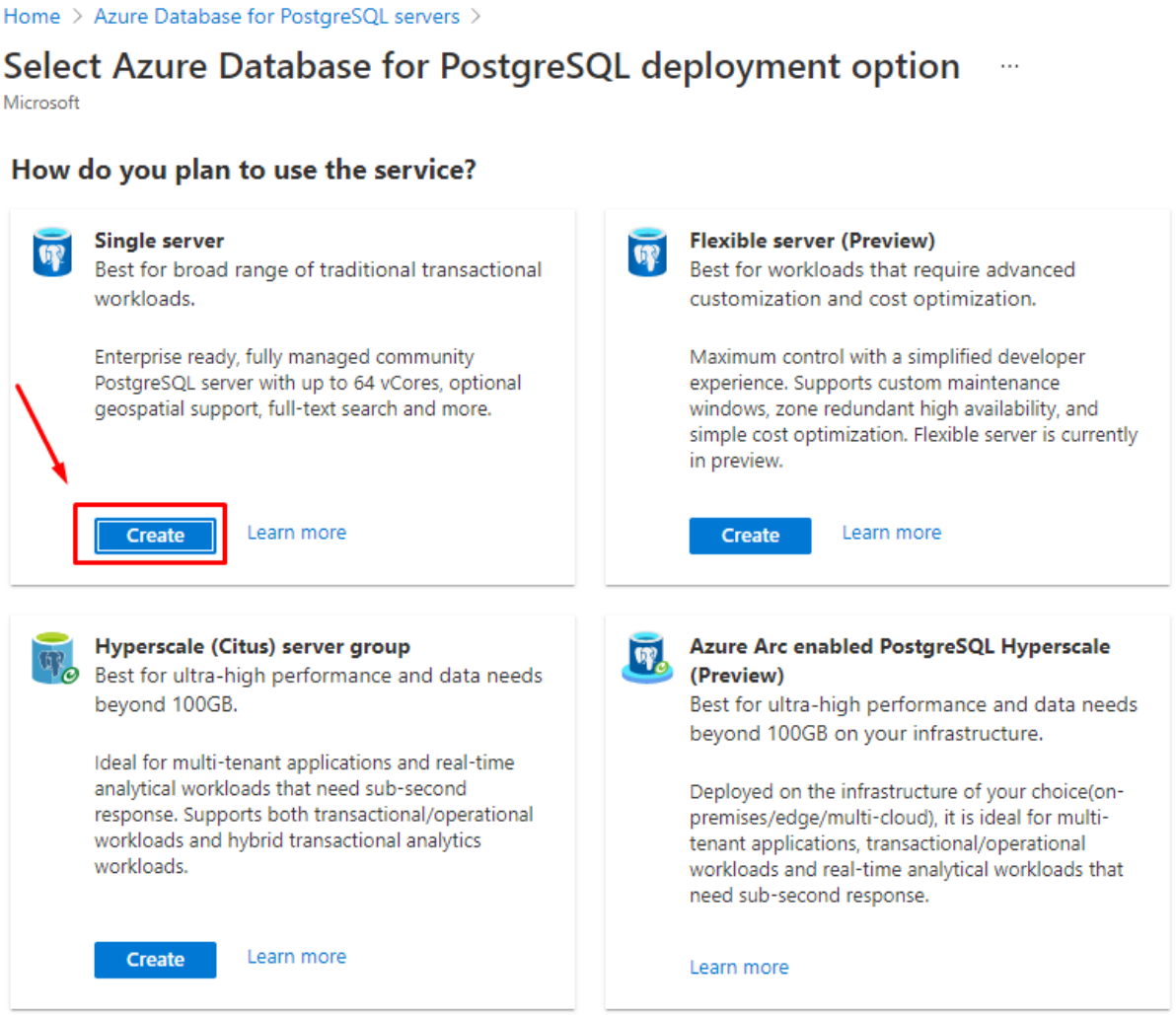
Step 2: In the search area search for “azure database for postgres server” and press the equivalent option in the search results.



Step 3: In the new window that will pop-up select “Create Azure Database for PostgreSQL server”.

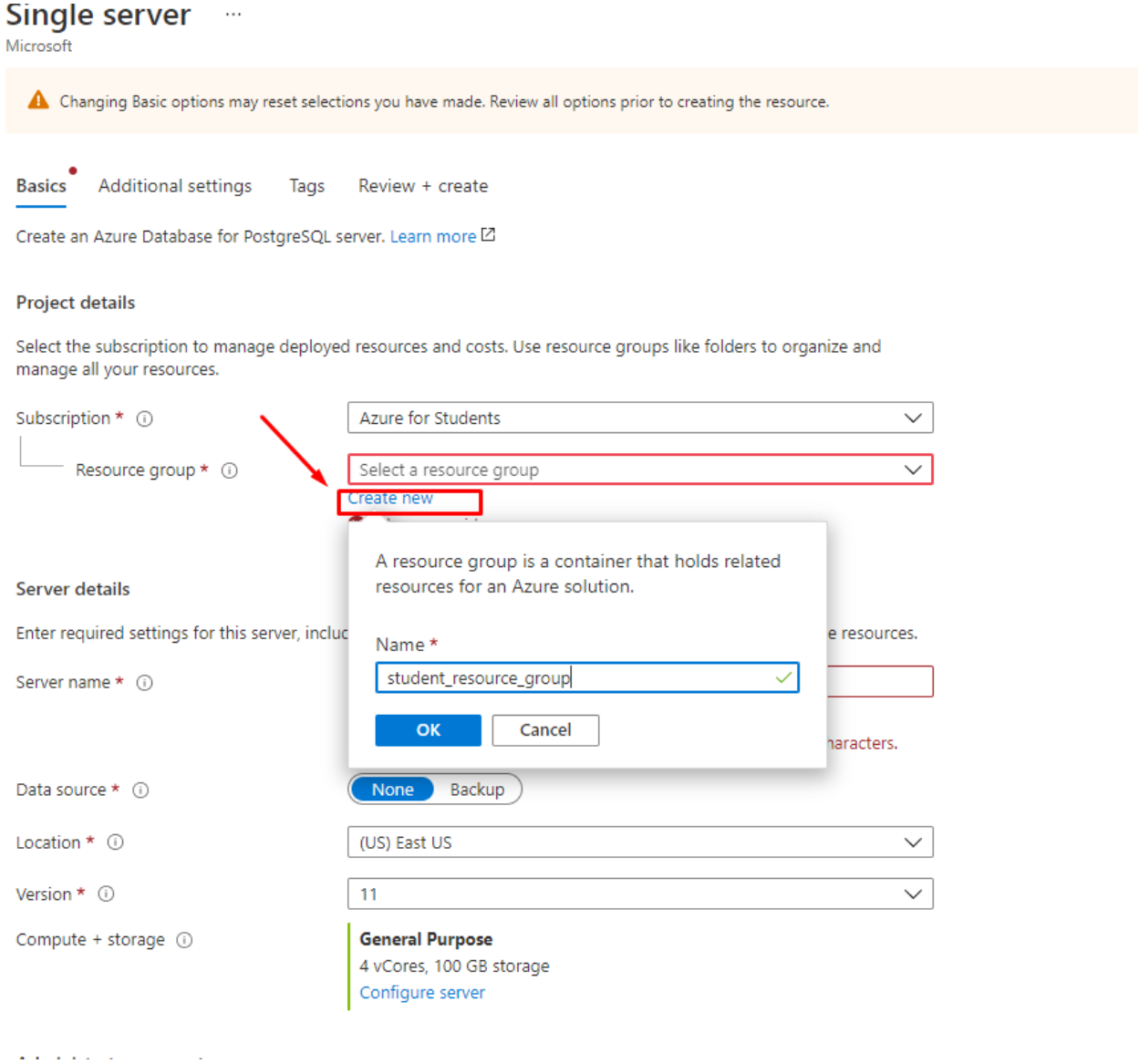


Step 4: In the single server tab press “Create”.



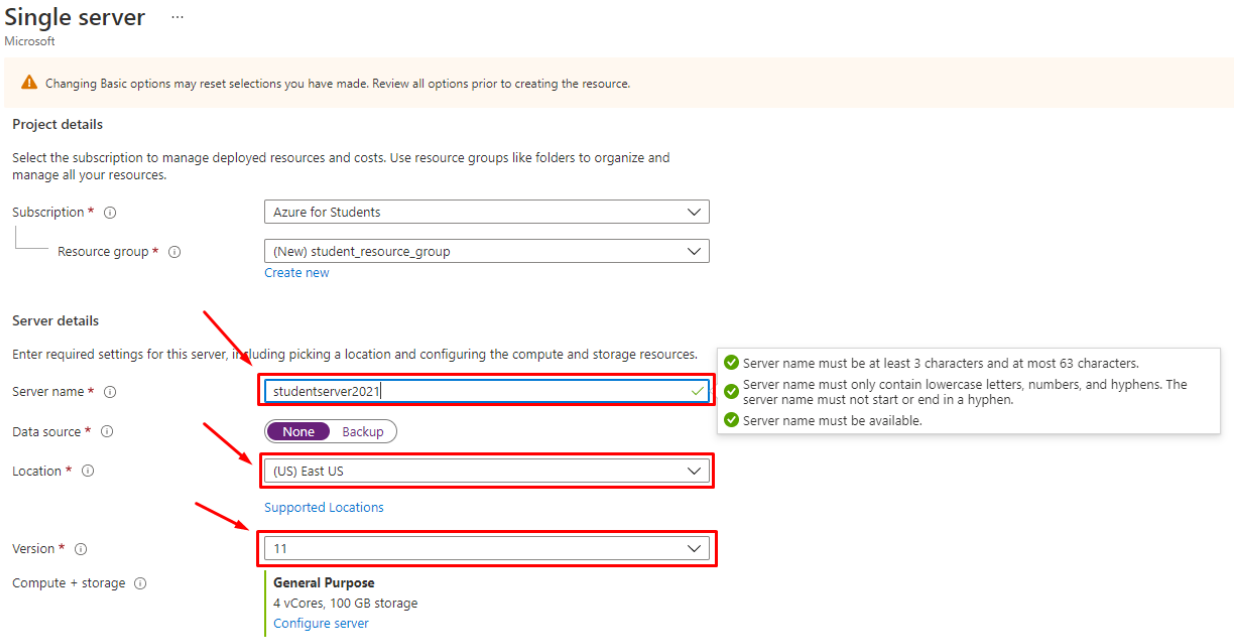
Step 5a: Fill-in the appropriate information in the project details selection.

Start with the information about the Resource group. Press “create new” and add a name (any name you want) for your resource group. Then press “OK”.

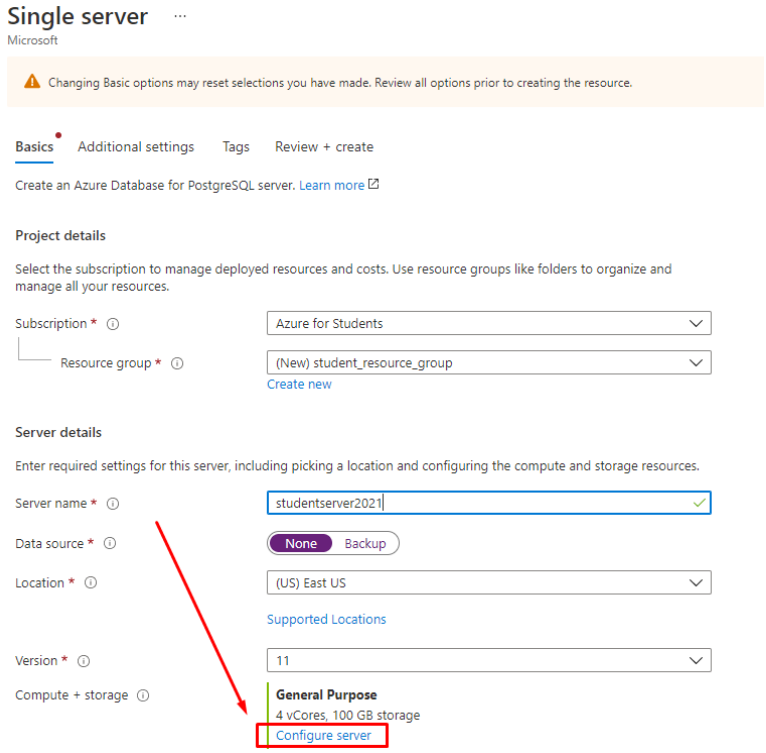


Step 5b: Fill-in the server details as following:

a. Server name: any valid server name you want (e.g.studentserver2021)
b. Location: (US) East US (This is the default value)
c. Version 11 (This is the default value)



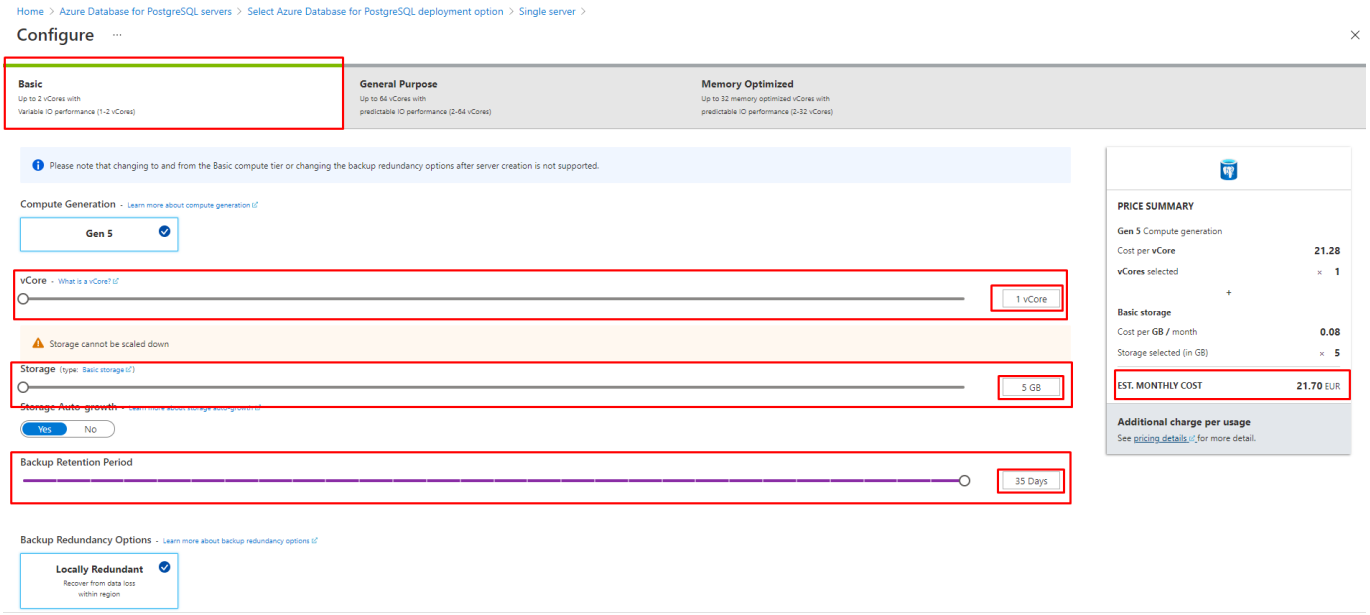
Step 5c: Press “configure server”.



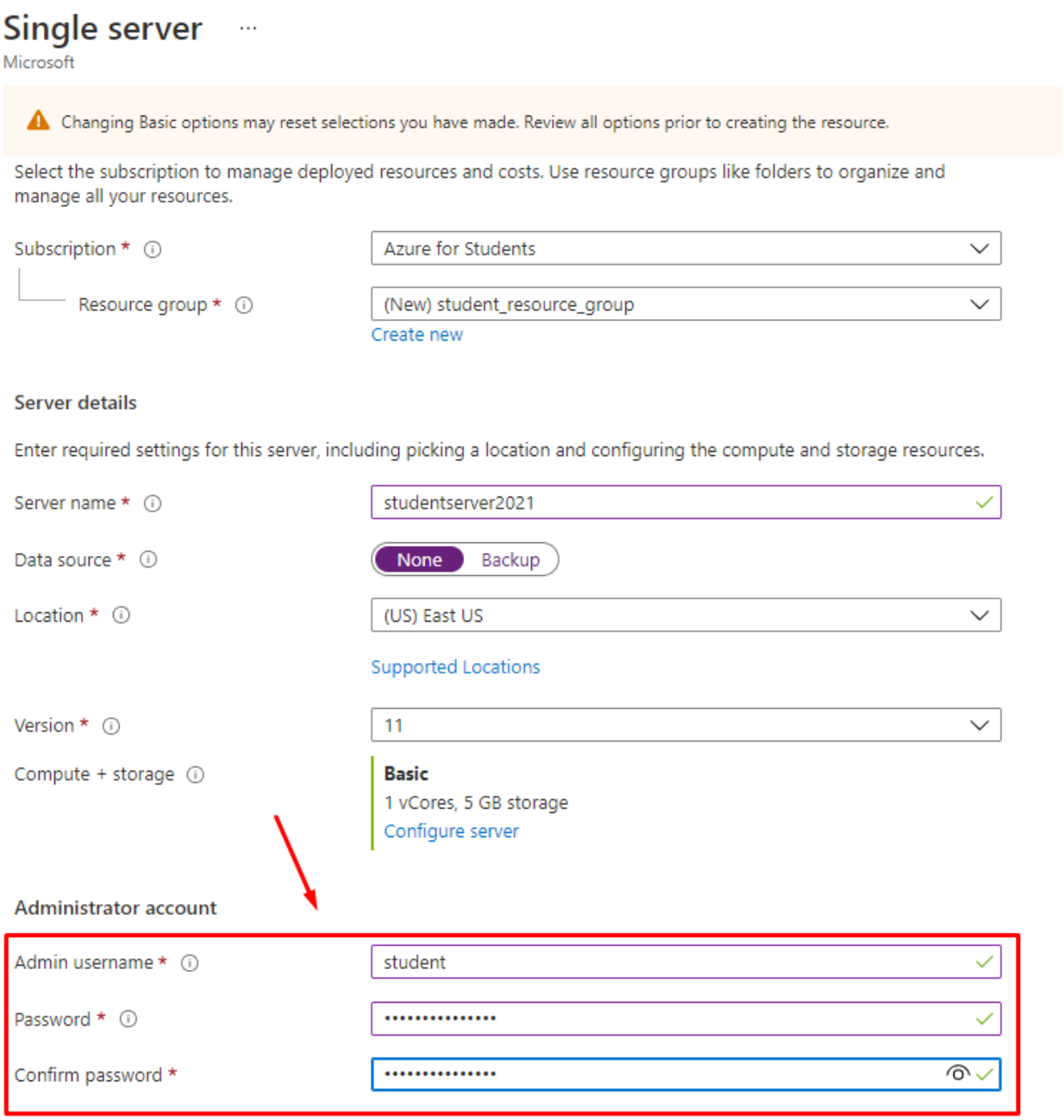
Step 5d: Make the following selections:

a. Select the “Basic” tab.
b. vCore should be 1 (1vCore).
c. Storage must be 5GB.

d. Backup Retention Period must be 35 days.
e. The EST.MOTHLY COST should be app. 22 Euros (21.70 is shown in this example) **Note: If the EST.MOTHLY COST is larger by a lot (e.g. above 30 EUROS) please verify that the steps shown above are executed correctly. Do not continue unless you are sure. Ideally you should get 22 Euros or less as a cost.**
f. Press “OK” at the bottom.



Step 5e: Fill-in the information about the in the “Administrator account” section. Add any preferred admin username and password for the database that we are about to create. You should remember the admin username and password.



Step 5f: Press “Review + create” at the bottom of the screen.

Step 5g: Check that the cost (~22 EUROS) and your information are ok and press “Create”. This may take a few minutes.

Single server ...

Microsoft

Basics | Additional settings | Tags | **Review + create**

Product details

Azure Database for PostgreSQL
by Microsoft
Terms of use | Privacy policy

Estimated cost per month
21.70 EUR
View pricing details

Terms

By clicking "Create", I (a) agree to the legal terms and privacy statement(s) associated with t
share my contact, usage and transactional information with the provider(s) of the offering(s

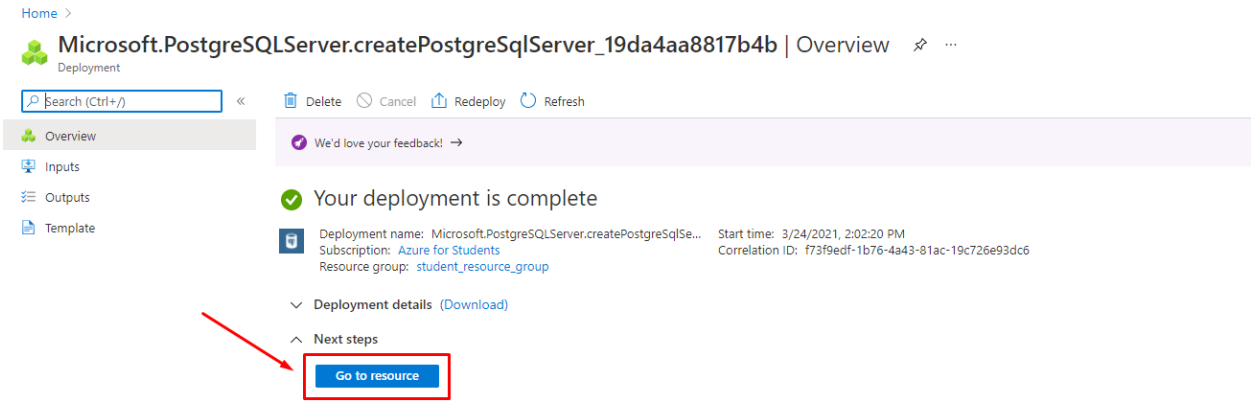
Basics

Subscription	Azure for Students
Resource group	student_resource_group
Server name	studentserver2021
Data source	None
Server admin login name	student
Location	East US
Version	11
Compute + storage	Basic, Gen5, 1 vCores, 5 GB Storage
Backup retention period	35 day(s)
Backup redundancy	Locally redundant
Storage Auto Grow	Enabled

Tags

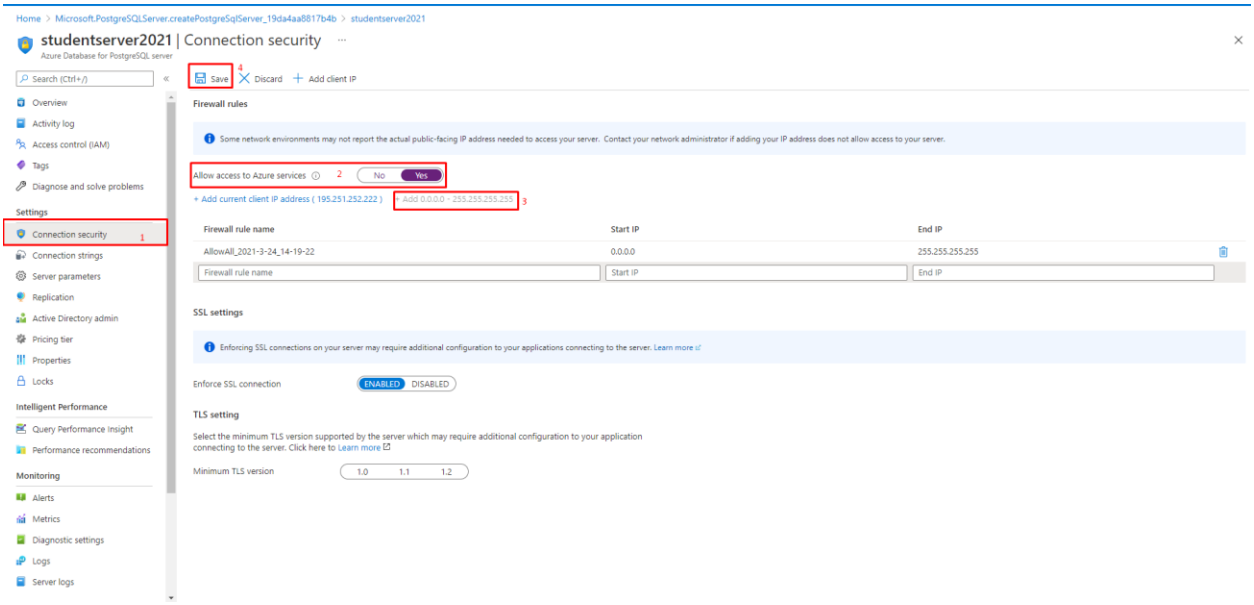
Create | < Previous | Download a template for automation

Step 5h: Once the process above is finished press “Go to resource”.



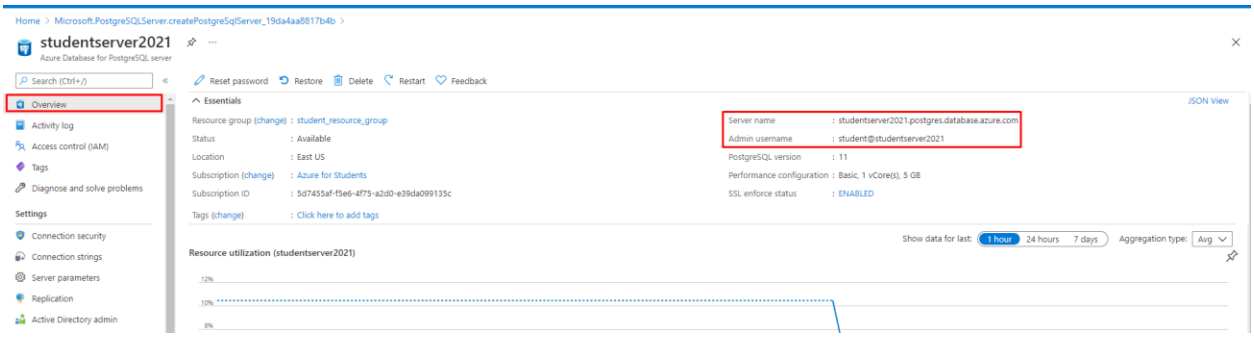
Step 6a: You should be redirected to your control panel. On the the left menu select the option “Connection security”. In the tab that will be available add the following options:

a. Allow access to azure services: “Yes” should be checked
b. All IPs should be allowed so press the link “Add 0.0.0.0 - 255.255.255.255”
c. Press “Save”



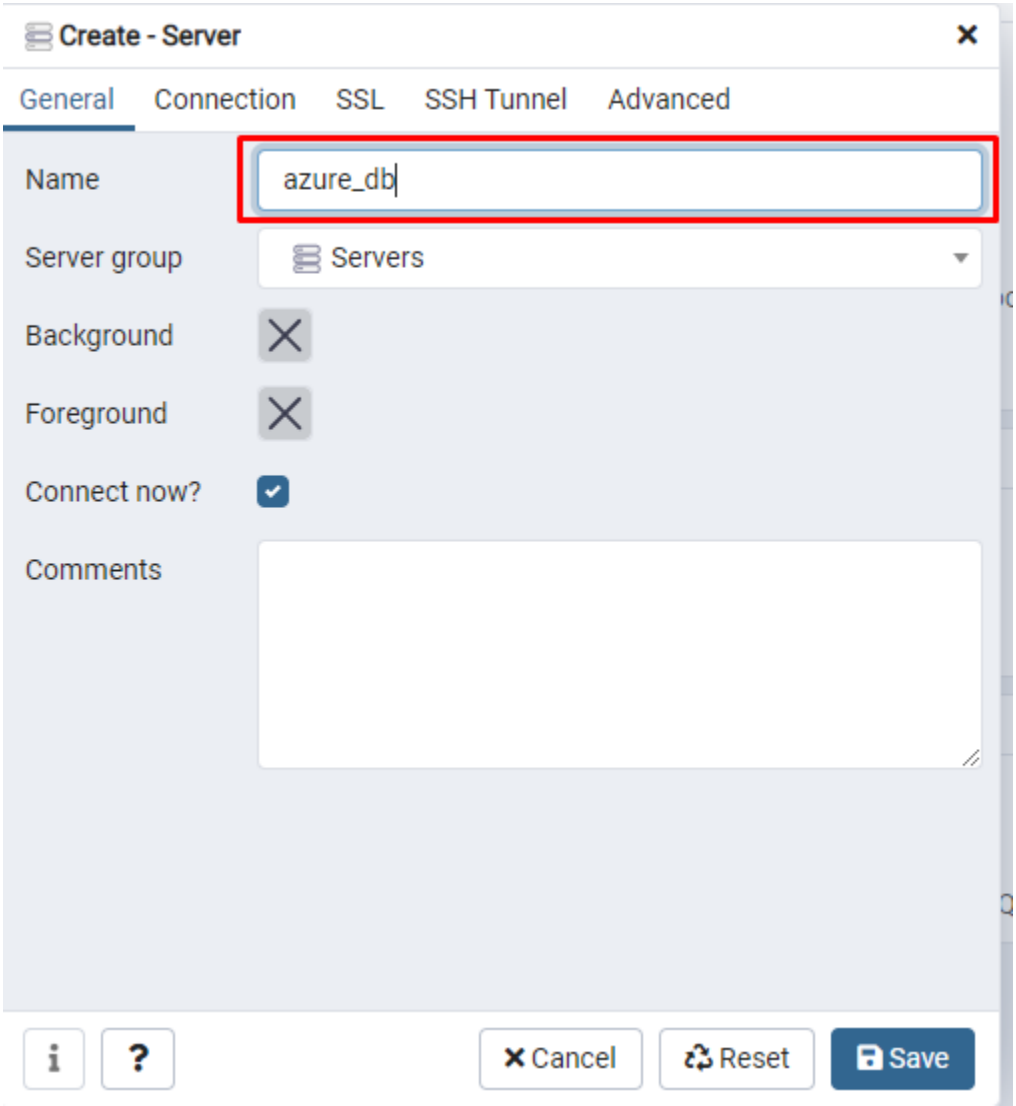
Step 7a:
Go to the “Overview” tab and copy the following information (so we can add them to pgAdmin4 to make a connection with the database):

a. Server name
b. Admin username
c. You should remember your admin password from step 5e.



Step 7b: Go to pgAdmin4 (you can download and install pgAdmin using this link) and press "Add New Server" and in the "General" tab fill the following:

a. Name: choose a name for your database

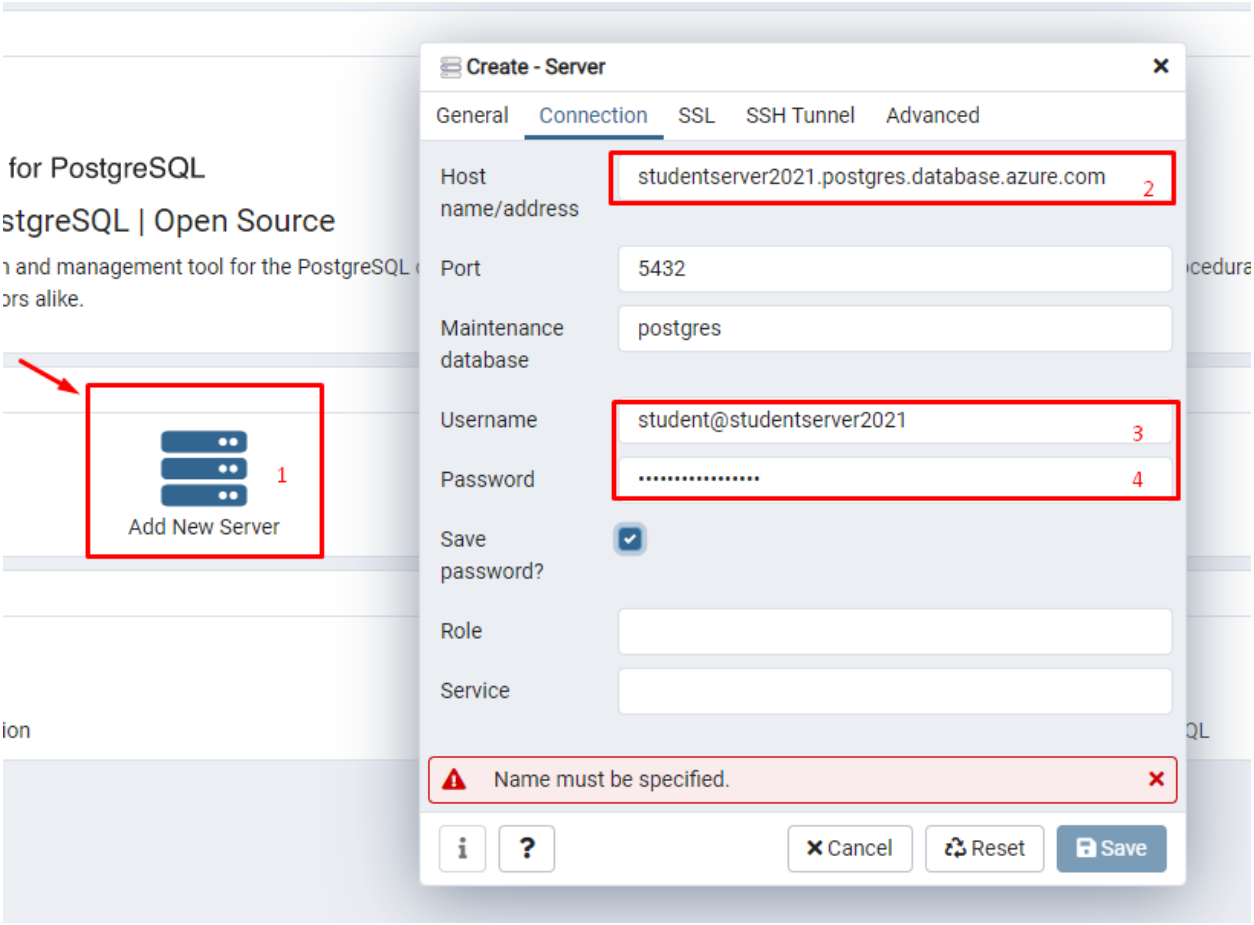


Step 7c:

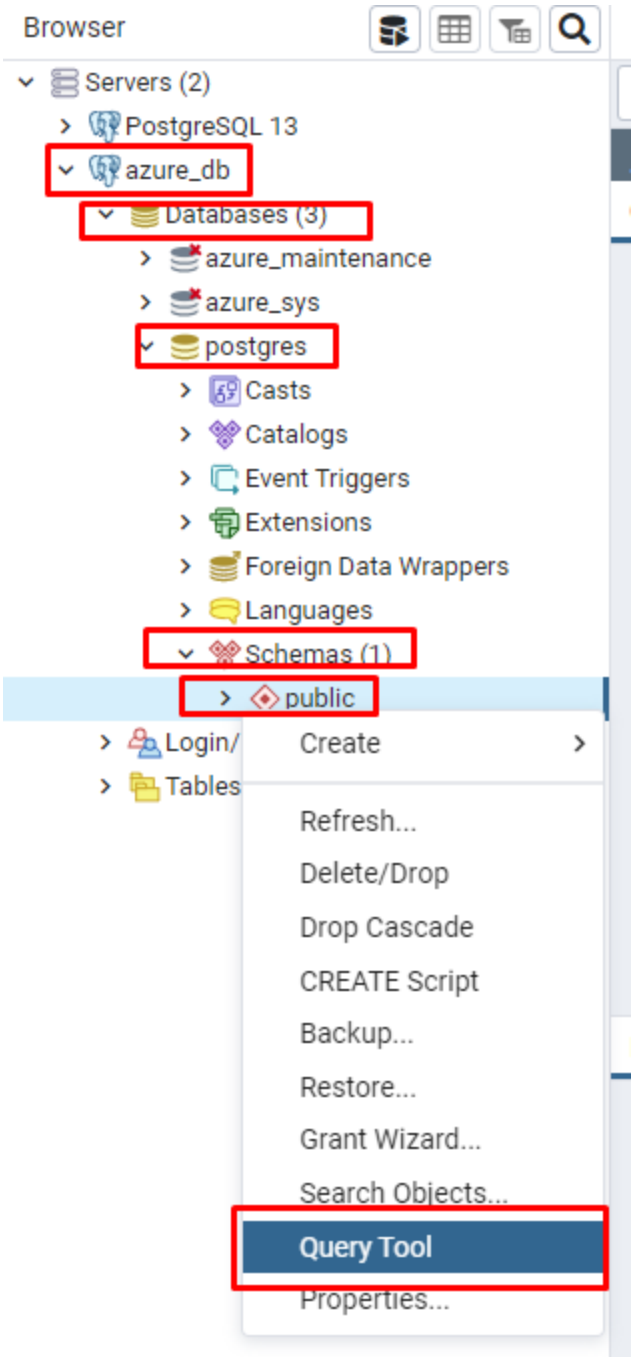
Fill-in the following in the "Connection" tab

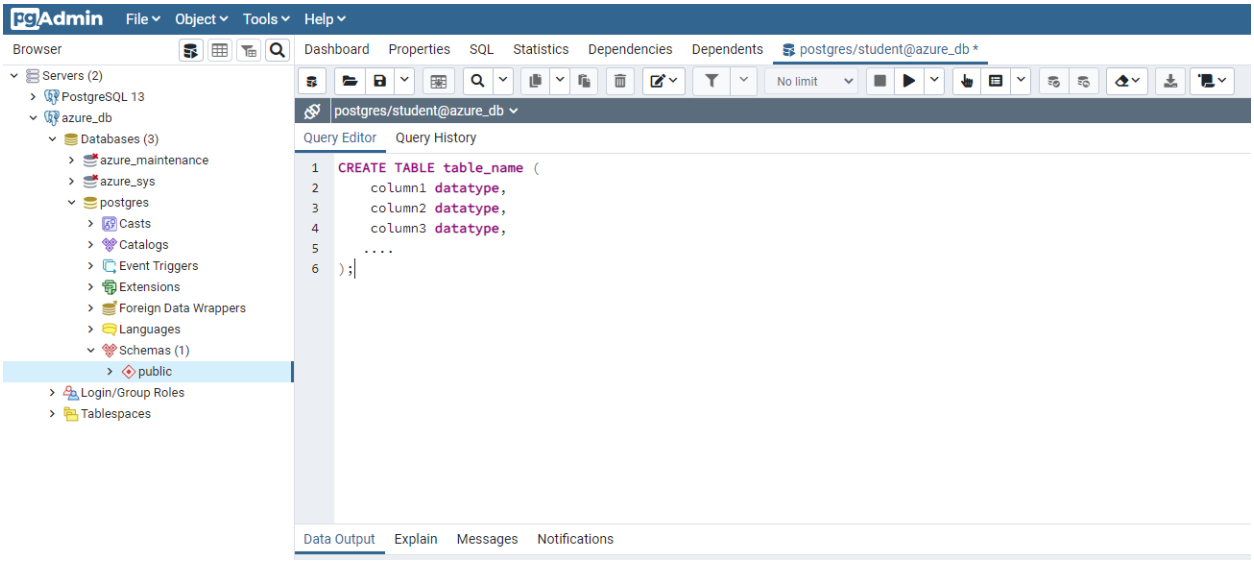
a. Host name/address: The server name as it was copied above (Step 7a-a)

b. Port: 5432 (This is the default)
c. Maintenance database: postgres (This is the default)
d. Username: The admin name as it was copied above (Step 7a-b)
e. Password: The admin password (step 5e)
f. Press “Save”.



Step 8: You can find your database by making the following selections on your left menu: Your_database_name >> Databases >> postgres >> Shemas >> public.
If you right click on public and press “Query tool” and new window opens and you can write SQL queries for your database.


Browser
Servers (2)
PostgreSQL 13
azure_db
Databases (3)
azure_maintenance
azure_sys
postgres
Casts
Catalogs
Event Triggers
Extensions
Foreign Data Wrappers
Languages
Schemas (1)
public
Login/
Tables
Create
Refresh...
Delete/Drop
Drop Cascade
CREATE Script
Backup...
Restore...
Grant Wizard...
Search Objects...
Query Tool
Properties...



Step 9: You also have to create a read-only role for your database using the following instructions, so that the examiners can connect to your database using the password you have set for the examiner role, without being able to modify anything.

Query Editor | Query History

```
1 CREATE ROLE examiner WITH LOGIN;
2 GRANT CONNECT ON DATABASE "postgres" TO examiner;
3 GRANT USAGE ON SCHEMA public TO examiner;
4 GRANT SELECT ON ALL TABLES IN SCHEMA public TO examiner;
5 ALTER ROLE examiner WITH PASSWORD 'select_a_password';
```

Data Output | Explain | Messages | Notifications

```
ALTER ROLE

Query returned successfully in 195 msec.
```

Step 10: You can also connect to you database through a command line interface using psql (http://postgresguide.com/utilities/psql.html), but you first have to install postrgres on your computer (http://postgresguide.com/setup/install.html). After you also set the environment variable path appropriately[1], you can connect to your database through command line with the following command:

[1] In Windows when we have a program installed and we want to call it from the command line from all folders, we have to tell the computer where the executable is. The psql executable file, along with the rest of Postgres, is usually located in C:\Program Files\PostgreSQL\10\bin. We take this path and go to our Windows environment variables and add it to the Path variable. In this

```
psql -h name_of_the_endpoint -p port_number -U db_user_name -d
database_name
```

We can use either pgAdmin or psql (or both) to work on your database.

way we can give to the cmd from wherever we are the psql command normally. -If we did not make Path we would call psql only from the folder bin… -