Week5_FinalAssignment

Task 1.1 - Find the settings in PostgreSQL (1 pts)

What is the maximum number of connections allowed for the postgres server on theia lab?

`max_connections = 4`

Task 1.2 - Create an User (1 pts)

`CREATE USER backup_operator;`

Task 1.3 - Create a Role (1 pts)

`CREATE ROLE backup;`

Task 1.4 - Grant privileges to the role (2 pts)

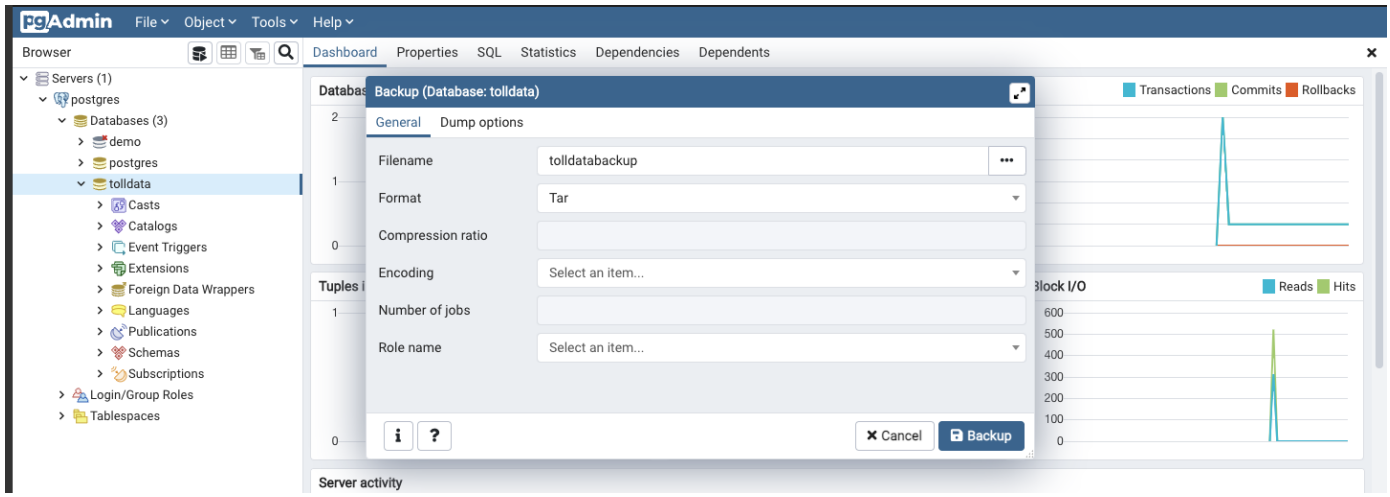
```
\c tolldata;

GRANT CONNECT ON DATABASE tolldata TO backup;
GRANT USAGE ON SCHEMA toll TO backup;
GRANT SELECT ON ALL TABLES IN SCHEMA toll TO backup;
```

Task 1.5 - Grant role to an user (1 pts)

`GRANT backup TO backup_operator;`

Task 1.6 - Backup a database on PostgreSQL server (1 pts)



Task 2.1 - Restore MySQL server using a previous backup (1 pts)

```
CREATE DATABASE billing;
USE billing;
SOURCE billingdata.sql;
SHOW TABLES;
```

Task 2.2 - Find the table data size (1 pts)

```
SELECT TABLE_NAME, DATA_LENGTH FROM information_schema.TABLES WHERE TABLE_NAME = "billdata";
```

Task 2.3 - Baseline query performance (1 pts)

```
SELECT * FROM billdata WHERE billedamount > 19999;
```

Task 2.4 - Create an index. (1 pts)

```
CREATE INDEX billedamount_index ON billdata(billedamount);
```

Task 2.5 - Document the improvement in query performance. (1 pts)

```
SELECT * FROM billdata WHERE billedamount > 19999;
```

Task 2.6 - Find supported storage engines (1 pts)

```
SHOW ENGINES;
```

Task 2.7 - Find the storage engine of a table (1 pts)

```
SHOW TABLE STATUS WHERE Name = 'billdata'
```

Task 3.1 - Restore the table billing. (2 pts)

Done in the UI

Task 3.2 - Create a view named basicbilldetails with the columns customerid, month, billedamount. (1 pts)

```
CREATE VIEW basicbilldetails AS (

SELECT customerid, month, billedamount FROM billing

);
```

Task 3.3 - Baseline query performance. (1 pts)

```
SELECT * FROM basicbilldetails WHERE billedamount = 19929;
```

Task 3.4 - Create an index. (1 pts)

```
CREATE INDEX billingamount
ON billing (billedamount);
```

Task 3.5 - Document the improvement in query performance. (1 pts)