

MySQL Command Line Interface

Big Data Systems

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Motivation (for this course)

- RDBMS has many standards (ODBC, SQL)
—> a lot of GUI tools (phpmyadmin, mysql workbench...)
- This is NOT the case for Big Data databases
each one has a different API
- Also, this is the quickest way to access a DB
and the “pro” way

TAU's CS MySQL Server

- <https://www.cs.tau.ac.il/system/MySQL>
- Following slides assume you are connected to nova
- Note: there are 2 mysql servers at TAU:
 - ~~mysqlsrv~~ (for sakila)
 - mysqlsrv1 (for your own user / sakila)

Creating a user

- Optional for this course

mysqlserv / mysqlserv1

```
boim@nova:~$ create_mysql_user
... Checking if the boim is a valid CS/MATH user
Check if boim already have an mysql user:
Creating new mysql user for user boim:
mysql: [Warning] Using a password on the command line interface can be insecure.

MAIL For user:boim@post.tau.ac.il :
Account was created successfully. An email message with more details
will be sent to  in a few minutes.
boim@nova:~$
```

Connecting

```
mysql -u username -h mysqlserv1.cs.tau.ac.il -p
```

Changing password (from mysql)

```
set password='newpass';
```

Useful commands

- `show databases`
- `use <database>`
- `show tables`
- `describe <table>`
- `show create table `<yourtable>`;`
- `CTRL+L` (clear screen)
- `create table / select / ...`

Demo - Create tables

```
CREATE TABLE cities (city_id INT, name VARCHAR(255),  
PRIMARY KEY(city_id));
```

```
CREATE TABLE users (user_id INT, name VARCHAR(255),  
city_id INT, PRIMARY KEY(user_id), FOREIGN  
KEY(city_id) REFERENCES cities(city_id));
```


Demo - Insert

```
INSERT INTO cities VALUES (1001, 'Tel Aviv');
```

```
INSERT INTO cities VALUES (1002, 'Los Angeles');
```

```
INSERT INTO users VALUES (101, 'Rubi Boim', 1005);
```

```
INSERT INTO users VALUES (101, 'Rubi Boim', 1001);
```

```
INSERT INTO users VALUES (101, 'Tova Milo', 1001);
```

```
INSERT INTO users VALUES (102, 'Tova Milo', 1001);
```

```
INSERT INTO users VALUES (103, 'Lebron James', 1002);
```

Demo - Select / delete

```
SELECT * FROM cities;
```

```
SELECT * FROM users;
```

```
SELECT * FROM users, cities;
```

```
SELECT u.*, c.name FROM users AS u, cities AS c WHERE  
u.city_id = c.city_id;
```

```
DELETE FROM cities WHERE city_id = 1002;
```


Sakila

- A sample database/schema
- User: sakila
Password: sakila
Server: mysqlsrv1.cs.tau.ac.il

```
mysql -h mysqlsrv1.cs.tau.ac.il -u sakila -p
```