Murders Analytics

A full stack web presentation for murders data

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2019
February

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1 Introduction

Murders analytics is a full stack web application built as a project on advanced database technologies and applications course at the department of Computer Science and Engineering, University of Ioannina. The main purpose of this application is to provide a web interface for interacting with a database and creating charts that provide useful analytics related to murders.

2 Application parts

The application consists of a dedicated database server, a web application API server and a static files server.

2.0.1 Database

The database server is a dedicated server on which the main running application is a MySql database server. There are many choices for a MySql ranging from linux to windows. Our choice was Ubuntu 18.04.2 LTS as a database server.

2.0.2 Backend - API

The API server is used for direct communication with the database. The API is written in node.js.

2.0.3 Frontend

The Static server is used for serving the frontend files and fetching data from the API. Frontend static files are html, css, javascript and media files served by NGINX.

3 Server configuration

3.0.1 Database

Database is hosted on Ubuntu 18.04.2 LTS. Has 1 CPU Core and 1 GB RAM.
Host: 192.168.1.10
User: Ken
Password: 123456

```
apt install mysql-server
mysql_secure_installation
# user = root
# password = 12345678
systemctl enable mysql

ufw allow 3306

vim /etc/mysql/mysql.conf.d/mysqld.cnf
# bind-address=192.168.1.10

mysql -u root -p
> CREATE USER 'sysdba'@'%' IDENTIFIED BY '12345678aA!';
> GRANT ALL PRIVILEGES ON *.* TO 'sysdba'@'%' WITH GRANT OPTION;
> FLUSH PRIVILEGES;
```