Homework M3: Advanced Docker

Assignment

You must execute the following set of tasks:

1. Try to create a **Vagrantfile** which creates a **Docker Swarm** cluster with **3 nodes**. The whole process should be automated as much as possible. Ideally, the whole cluster should be created with executing just the **vagrant up** command
2. Create own **docker-compose.yml** file with:
   - Combination of two containers, based on own images – **web (php+nginx)** and **db (mysql/mariadb)**
   - The application should connect to the database and display a table's content which could be anything – for example, the **top 10 cities by population** in **Bulgaria** (reuse the one shown during the practice)
   - Replicate the web container with **factor 3**
   - Deploy the solution on the swarm cluster created in the first part

It is not required both tasks to be automated and executed together. Instead, at first, prepare the **Vagrantfile** and spin up the environment. Then create the **docker-compose.yml** file, upload it on the cluster and execute it

Note that the compose file may be named either **docker-compose.yml** or **docker-compose.yaml**

Target Infrastructure

After you fulfil the assignment tasks, your infrastructure may look like: