



# Virtualization and Cloud Computing Final Project

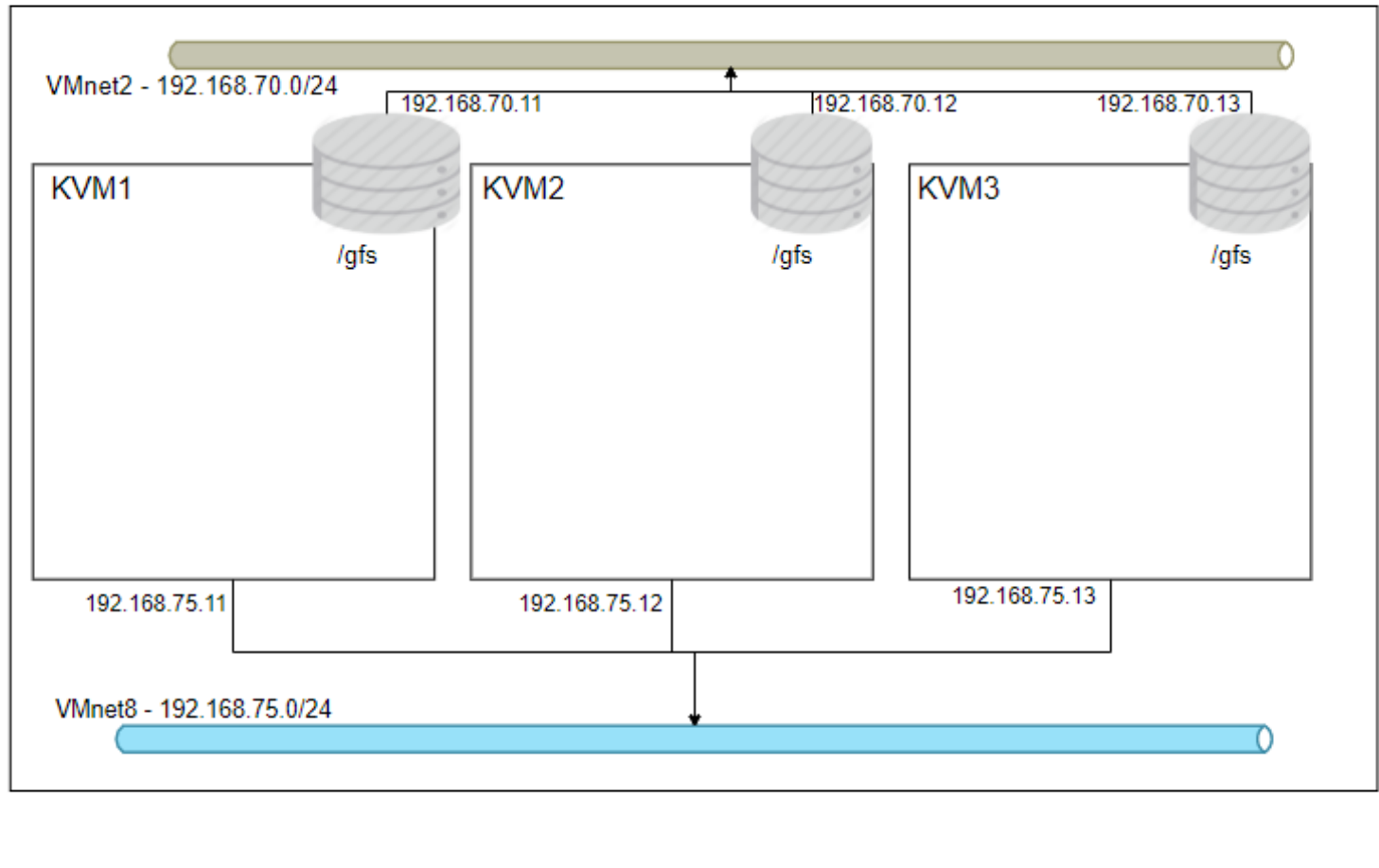
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# Project

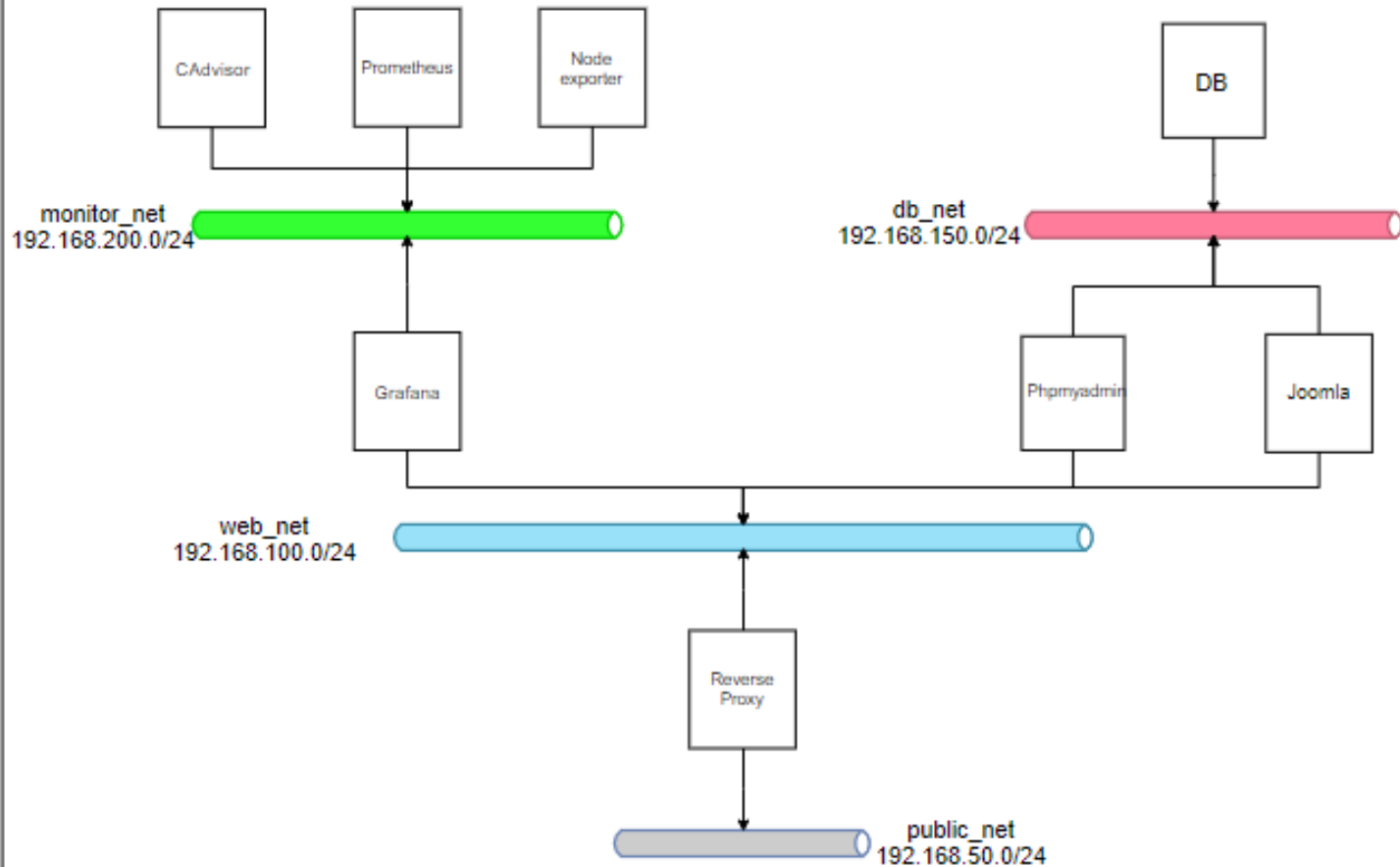
- Multi-tier application deployed with Docker Swarm
- Components:
  - CRM
  - Database
  - Database administration tool
  - Reverse proxy service
  - Application monitor

Laptop

VMware Workstation



## Docker



# Gluster usage

- Replicated mode
- Used for:
  - Store and maintain Joomla's data (e.g. templates) across the nodes
  - Store and maintain MariaDB database across the nodes
- Split brain is solved using 3 replicas

# Access point

- The application is accessible at 192.168.75.11 address (KVM1 – swarm manager)
- Nginx takes care of redirect requests to the desired service (base 192.168.75.11):
  - root -> <http://joomla/>
  - /managedb -> <http://phpmyadmin/>
  - /service-monitor -> <http://grafana:3000/>
  - Errors -> nginx error pages



# Possible improvements

Implementing MySQL HighAvailability in order to run our database on different nodes in replicated mode