# Solution M6: Prometheus and Grafana

One machine will be created, and it will host all necessary containers

Resources used for this solution include:

* Docker Documentation - <https://docs.docker.com/config/daemon/prometheus/>
* Prometheus @ Docker Hub - <https://hub.docker.com/r/prom/prometheus>
* Grafana @ Docker Hub - <https://hub.docker.com/r/grafana/grafana>

## Solution

The following files are part of the solution:

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├── install\_docker\_debian.sh -> Script to install Docker

├── run\_containers.sh -> Script to run all containers (Prometheus, Grafana, Application)

├── setup\_docker.sh -> Script to adjust Docker configuration (enable Prometheus metrics)

├── vagrant

│ ├── daemon.json -> Docker configuration file

│ ├── dashboard.json -> Exported dashboard

│ ├── prometheus.yml -> Prometheus configuration file

│ └── runner.sh -> Script to simulate application workload

└── Vagrantfile -> Vagrantfile to create the whole environment

The solution offers almost complete automatization. It may be brought up with

**vagrant up**

Then, we can visit the <http://192.168.99.101:3000> address (use **admin**/**admin**) and do the following:

* Add **Prometheus** as a data source (do not forget to use **http://192.168.99.101:9090**)
* Import the dashboard by following these steps:
  + Once, inside **Grafana**, in the left toolbar, hoover the **Dashboards** button and select **Import**
  + Click the **Upload JSON** file button
  + Select the **vagrant/dashboard.json** file and confirm with **Open**
  + Select the correct data source (the **Prometheus** you added earlier)
  + Should you want, adjust the **name**, the **uid** or the **folder**, and confirm with the **Import** button

That is, it 😊