Monitoring Lab Assignment

Choose one of those assignments. The harder it is, the higher the grade you can get.

In your report log, show the relevant command lines and configuration parameters you went through, and most importantly, show the PoC results, logs and acceptance testing.

Zabbix [easy]

Setup a zabbix agent and a Zabbix server. Make sure you end-up viewing the 4 major resources [1]. To validate, stress-test at least one of those.

Nagios Core [easy]

Setup a Nagios agent and a Nagios Core server. Is there any graphing capability? Setup two alerts:

1. one against a system resource [2], then stress-test to validate,
2. one against a remote resource (e.g. HTTP) and validate.

M/Monit [easy]

Same as for Zabbix, but with a Monit agent and M/Monit server. Is this Open Source software?

(any other monitoring tool)

Same as for Zabbix or Nagios Core. Name your software.

Monit Graph [medium]

Setup a Monit agent and a Monit Graph server. Show what metrics you end-up with and esp. if this includes the 4 major resources [3]. To validate, stress-test at least one of those.

https://github.com/danschultzer/monit-graph

Zabbix API [hard]

Setup a zabbix agent and a Zabbix server. Connect to the server API and show average usage results for the 4 major resources [4] for defined periods of time (e.g. last 30 days or for the purpose of the lab, last 3 hours or minutes).

Nagios custom plug-in [hard]

It's not as hard as it sounds. Make a custom script (possibly as shell) and check that you are able to print output to the Nagios Core UI, as well as the OK vs. WARNING vs CRITICAL statuses.

SNMP from network device [hard]

Enable on a network device (can be emulated with GNS3) and validate that you get metrics from a GNU/Linux server.

SNMP to monitoring [hard]

as a team of two – team up with somebody who's setting up a monitoring software

Setup an SNMP agent and manager, then help your teammate to setup the metics to show up in his interface.

Bonus: setup both, alerts and performance graphs.

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[1] CPU/LOAD RAM I/O TX/RX
[2] CPU/LOAD RAM I/O TX/RX
[3] CPU/LOAD RAM I/O TX/RX
[4] CPU/LOAD RAM I/O TX/RX

SNMP to TSDB [hard]

Setup an SNMP agent and manager, then manage to push the obtained metrics to some key-value or time-series database.

SNMP NMS [hard]

Setup an SNMP agent and manager, then set up a Network Management Station (NMS) that collects from and possibly manages agents.

XEN metrics from hypervisor

Experiment with either some plug-ins or try to make your own (possibly in shell), in view to get guest 4 major resource metrics [5] directly from hypervisors.

https://www.influxdata.com/products/integrations/

https://www.zabbix.com/integrations/xen

[5] CPU/LOAD RAM I/O TX/RX