

## Your Special Task

### A realistic scenario in the near future

After you received your master's degree at the FRA-UAS, you did not need a long time to find an interesting job. In one of the first team meetings, your colleagues talk about a free software solution, which may be useful for the company. Because you attended a cloud computing course during your master studies at the FRA-UAS, your team leader expects you to be perfectly suited to analyze the software and present the results of your investigation to the team.

### In real life,...

such things happen quite often. One week is a typical amount of time to do such an investigation in parallel to your daily tasks. In this course you have several weeks! The software you shall investigate is:

## Apache Spark

Please focus your investigation on these topics:

- Functionality (*what can you do with this software?*)
- Requirements (*what do you need to deploy this software?*)
- Is it simple or difficult to deploy? (*explain your experience.*)
- Maintainability (*which components/services does the software contain? How do they interact/communicate? Find out their port numbers. Can you test their functionality with appropriate tools like `netstat`, `lsof`, `nmap`, `telnet` or `nc`?*)
- User friendliness (*explain the user and administrator perspective both!*)
- Name some alternatives to this software, which provide the same functionality.

Please create a presentation (max. 15 minutes each) with maximum 8 slides and additionally a live demonstration (!!!)

### Some hints

- Free software projects often have a github repository with lots of helpful information inside the github wiki.
- You can deploy the software on your laptop or inside virtual machines (e.g. VirtualBox) or inside a public cloud infrastructure service like EC2.
- In case you have problems to deploy and use the software, ask the developers via their mailing lists and try to get some help at a knowledge market like `stackoverflow.com` or a distribution specific page like `forums.debian.net`.