SYSTEM ADMINISTRATION:
INSTALLATIONS AND AUTOMATION

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WHO AM I...

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What I Do:
- Quality Manager - SCCM (Software Change & Configuration Management)
- 3ª Matricula na UAB Licenciatura em Informática
DISCLAIMER

The names and scenarios presented here are purely fictional.

Any similarity to real people or scenarios is purely a coincidence.

No animals were harmed during the making of this Workshop.
WHAT IS INSTALLATIONS?
INSTALLATION & UPDATE
WHEN ALL MAGIC HAPPENS ON SYSTEM
ROLLBACK
RUN OR WILL REGRET THE NEXT MORNING
A problem has been detected and Windows has been shut down to prevent damage to your computer.

**DRIVER_IRQL_NOT_LESS_OR_EQUAL**

If this is the first time you've seen this Stop error screen, restart your computer. If this screen appears again, follow these steps:

Check to make sure any new hardware or software is properly installed. If this is a new installation, ask your hardware or software manufacturer for any Windows updates you might need.

If problems continue, disable or remove any newly installed hardware or software. Disable BIOS memory options such as caching or shadowing. If you need to use Safe Mode to remove or disable components, restart your computer, press F8 to select Advanced Startup Options, and then select Safe Mode.

**Technical information:**

```plaintext
*** STOP: 0x000000d1 (0xffffffff8a0275f610,0x0000000000000002,0x0000000000000000,0xffffffff8800b6b6385)

*** myfault.sys - Address FFFFFFF800B6B6385 base at FFFFFFF800B6B5000, DateStamp 4f806ca1
```

Collecting data for crash dump ...
Initializing disk for crash dump ...
Beginning dump of physical memory.
Dumping physical memory to disk: 75
Why should I automate installations?

WHY I MUST AUTOMATE INSTALLATIONS
REASON #1
REDUCE HUMAN ERROR
REASON #2
PRODUCTIVITY
REASON #3
TIME FLEXIBILITY
REASON #4
RELIABILITY
REASON #5
PORTABILITY
REASON #6
REPETITIVE TASKS
REASON #7
PACKAGE
A example used in Universidade Aberta course unit

WHAT IS IN PRACTICE...
Objectives

- Install a Virtual Machine with CentOS
- Web Solution Stack
  - Apache
  - MySQL
  - PHP
- Install and configure a Moodle Installation
  - Install Moodle Catalan Language
  - Install Moodle English Language
  - Configure Moodle CronTab
Develop a Shell Script:

1. Install Apache
2. Install MySQL
3. Install PHP
4. Start/Restart Services
5. Clean Previous Moodle Installation
6. Download & Unzip Moodle
7. Copy Moodle Files to Web Server
8. Create Moodle Database & User
9. Import Moodle Database
10. Download & Install Moodle CA Language
11. Download & Install Moodle EN Language
12. Configure Moodle on Crontab
Benefits:

- No need to access Gui mode
- Control over all actions step by step
- Easy and quick to install
- Automatically remove previous installations
- Easy to validate and make changes
- Multiple executions and tests
- Safety and Reliability
- MASSIVE TIME REDUCTION
COURSE UNIT:
ADMINISTRAÇÃO DE SISTEMAS INFORMÁTICOS
Any questions?
THANK YOU