Organization
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Project Outline
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First Milestone
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Project Cloud Computing
Project outline, milestones and information

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Semester project

Examination

The examination in the master course **Cloud Computing** will be a group project over the course of the semester. You need to form groups of **4-5 people** and work on the milestones outlined in this presentation.

There are three milestones on the project:

1. Milestone – Technical transformation on premise
2. Milestone – Cloud transformation on premise and public
3. Milestone – Implementation of cloud transformation scenario

Deadlines

The dates for the submission and presentation of your milestones will be announced in the corresponding milestone sheet! The last milestone will be the submission of your **final report** and your **final presentation** at the end of the semester!

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Assessment and grading

The milestones 1 and 2 contain theoretical tasks and milestone 3 a practical task. The quality of milestone 1 and 2 will be assessed under the following criteria:

- Factual Correctness of the results
- Actuality of the results
- Methodology of work
- Creativity of the work
- Thoroughness of Explanation and Argumentation

The grades are calculated as follows:

1. Milestone – **25% of the grade**
2. Milestone – **25% of the grade**
3. Milestone – **50% of the grade**

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Assessment and grading

VERY IMPORTANT!!!

Always mark your individual contribution to the projects! Otherwise there will be <u>no grading</u> of your contribution!

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Project outline

The LowTech GmbH has **7 Departments** with **7 Server** hosted on premises of the company (basement), **17 Clients** and **19 Laptops** in their business ecosystem. The new CEO of the LowTech GmbH wants to make the company future ready and read something on **cloud computing**[1].

Now he wants you to make his vision come alive!

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[1]His source: `https:`
`//techmonitor.ai/technology/ways-to-explain-cloud-computing-to-a-five-year-old`

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Figure: The visionary CEO of the LowTech GmbH

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Application landscape of LowTech GmbH

LowTech GmbH

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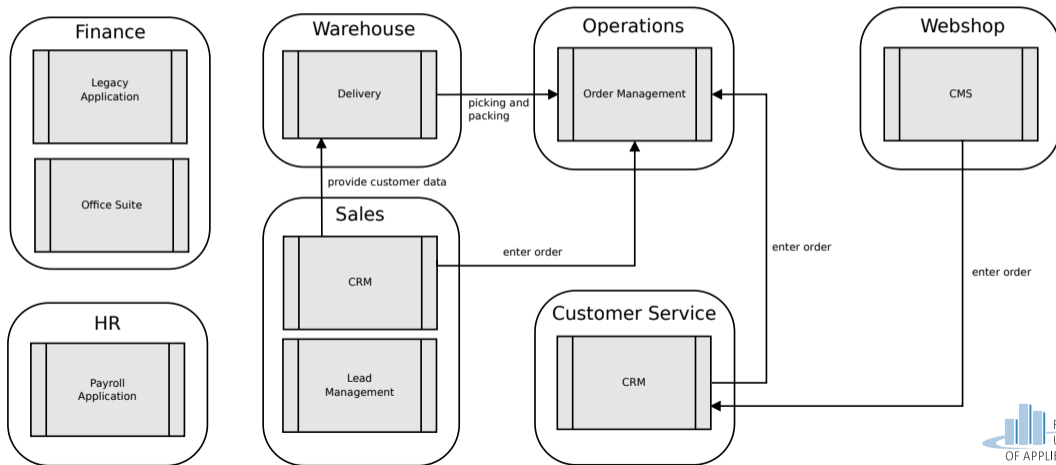
Application landscape of LowTech GmbH

In a first step you are asked to develop a strategy to make the operation of the infrastructure more **scalable, available** and **secure**. You are also asked to update the infrastructure regarding **technology, runtime** and **operation modality**.

The customer is not yet keen on moving to the cloud so consider an option of operating the infrastructure in a **private context** (on premise, server colocation, hosting)!

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Requirements

Customer requirements:

- High Availability of 99.5%!
- Max. Downtime 4 hours!
- Significant reduction on costs!
- Significant reduction on maintenance!
- Future ready design!

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Artifacts for first Milestone:

1. Strategy for the technological transformation of the server and application infrastructure for future operation! (with **infrastructure diagram**, **roadmap** and **list of technologies**)

2. Detailed research on alternative technological components (Hardware, Hypervisor, Firewall, platforms, etc.) for the operation of applications and their respective costs!

3. Critical assessment of the **as-is** and **to-be** infrastructure and detailed explanation of your improvements on **scalability, availability** and **security** for your proposal!

Prepare a report and a presentation of 10 minutes length on the artifacts!
The report and presentation are due to **24.11.2024**!

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The requirements listed are generic, i.e., they do not address the specifics of individual hosting providers and are therefore not yet final. They can change over the course of the semester!
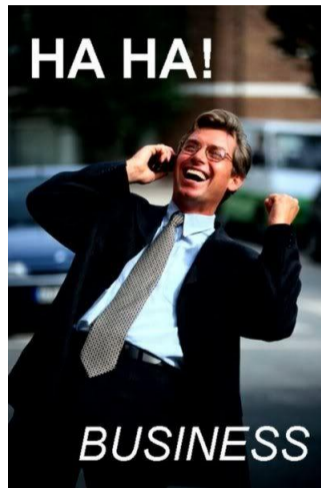
Therefore be careful and mind the business experts!

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Figure: The business expert of Awesome Cloud AG

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Next Steps

Choose your group members till 31.10.2024!

in CampUAS:

Cocos: Cloud Computing - Project - WiSe 24/25

Password: `Cloud_Cocos_WiSe24`

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Thank You
For Your Attention!

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