OTTO VON GUERICKE UNIVERSITÄT MAGDEBURG

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MAGDEBURG RESEARCH AND COMPETENCE CLUSTER VLBA

AG WI SAP UCC VLBA Lab

# Certificate

## Hussein Al Awassi

participated in the 2nd OVGU Cloud Winter School and completed it successfully. One component of the two-week course was the extensive Associate Cloud Engineer training (Google Cloud Career Readiness Program).

Apart from the discussion of numerous topics around Cloud Computing, the course particularly covered the following contents:

- theoretical foundations for the operation and use of Cloud
- interaction with the Google Cloud and its technologies
- handling complex application examples using the Google Cloud

Prof. Dr. Klaus Turowski
(Head of MRCC)

Prof. Dr. Alexander Zeier (Global Managing Director at Accenture)

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# Overview of covered contents:

- Theoretical foundations:
  - introduction to Cloud Computing, including the history, definitions, characteristics, existing service and deployment models in the Cloud, and necessary roles
  - types of workloads and their management, pay and profit models, Cloud Computing patterns, which describe the structure and management of cloud applications
  - significant technologies and architecture concepts, that are considered standard nowadays (e.g., virtualization, multi-tier architectures)
  - structure and operation of data centers, including optimization potentials, introduction of load balancing
  - overview of Google Cloud: structure, usage, various technologies (e.g., Terraform, Ansible, App Engine, Compute Engine, Big Query (ML), Vertex AI, Cloud Scheduler, Cloud Functions, Cloud Spanner, IAM, VPC)

- Practical assignments:
  - utilization of the previously mentioned technologies throughout ten hands-on exercises, including, amongst others, the creation of virtual servers, using Kubernetes and Cloud Spanner, and realizing a complex cloud architecture (inventory management of a carpentry)

- approx. 40-hour online intensive course on Google Cloud Skills Boost (Cloud Engineer Learning Path), including the modules: Google Cloud Fundamentals: Core Infrastructure; Essential Google Cloud Infrastructure: Foundation; Essential Google Cloud Infrastructure: Core Services; Elastic Google Cloud Infrastructure: Scaling and Automation; Getting Started with Google Kubernetes Engine; Logging, Monitoring and Observability in Google Cloud