How to develop and deploy highly scalable web and mobile applications in the cloud?
covexo – A Mannheim-based Startup

- Technology startup located at the Institute for Enterprise Systems in L15
- Awarded with the BMWi scholarship “EXIST Gründerstipendium“

3 Founders from the University of Mannheim

- Lukas Gentele  
  Business informatics  
  University of Mannheim

- Daniel Thiry  
  Business Administration  
  University of Mannheim

- Fabian Kramm  
  Business Informatics  
  University of Mannheim

2 Advisors from InES

- Dr. Bartelt  
  Post-Doc at the Institute for Enterprise Systems

- Prof. Stuckenschmidt  
  Chair of Artificial Intelligence, Head of the Data and Web Science Group

Technology and Innovation Partners
covexo – Cloud Development

Cloud Development Platform
- Move development environment from your local computer to the cloud (cloud workspace)
- Run and test applications directly in the cloud

Benefits of Cloud Development
- No hassle with missing libraries and path settings
- More power for testing CPU/RAM intense code
- More realistic runtime environment

The Extra Benefits of covexo
- No setup cost due to DevSpace cloning + templates
- Access to data from the live system (OverlayDB/PV)
- Easy collaboration through Progress Monitoring
What the Team Project is about

**Topic: Digitalizing the Shopping Experience at the Supermarket**

- We currently cooperate with LUNAR / EDEKA (biggest grocery retailer in Germany)
- With the MTP 2016 team we are building a social delivery network for EDEKA
- Imagine you want to start your own business that sells end-user services to large supermarket companies
- Possible services: indoor navigation, online pre-order, smart shopping list, ... YOUR OWN IDEA?

**Your Goals:**

1. Choose a use case and develop an application with:
   - a modern frontend interface (e.g. Android or web app)
   - a web service as backend (e.g. REST or GraphQL API)

2. Deploy and scale your application through CI/CD with deployment pipelines for multiple cloud providers

**Team:** 3-4 students

**Duration:** 6 months + 1 meeting upfront
What we expect from you

Mandatory Requirements
- Advanced programming skills (e.g. PHP7, Node.js, Android)
- Practical experience with git (e.g. feature branching)
- Passion for UI design (HTML5, CSS3, JS)

Preferable Skills
- Knowledge of CI/CD tools (e.g. GitLab CI, Jenkins)
- Practical experience with containerization (e.g. Docker)
- Some knowledge of Linux scripting (e.g. bash)

Soft Skills
- Commitment to your team and to your project
- Fairness and team work

What we offer you

3 Intense Workshops
- How to develop software in the cloud
- How to scale software in the cloud
- How to push my startup idea to production

Freedom & Advice
- We offer you the chance to realize your own idea
- We offer advice but you decide about the technology stack
- We offer you the chance to experiment with different clouds

Computing Resources & Infrastructure
- We will pay for your cloud resources (GCE, AWS, Azure,...)
- We will provide development solutions like GitLab
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in cooperation with

covexo
code, run and scale