

Welcome!

The 2020 AMOS Demo Day

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AMOS H02

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The Professorship for Open Source Software



Industry Partners and Teaching Projects



Audi
Vorsprung durch Technik



BOSCH

Continental



methodpark

NEWSTORE



SOLYP

SENACOR

SIEMENS

sivantos
the hearing company

s software AG



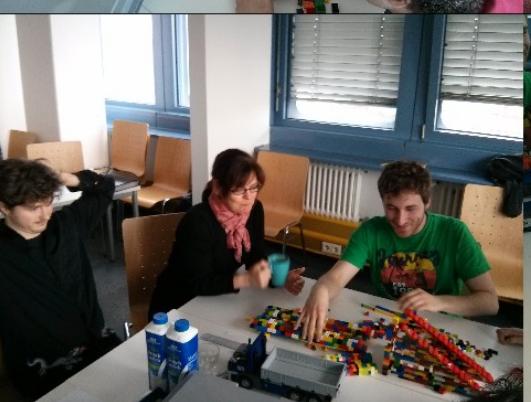
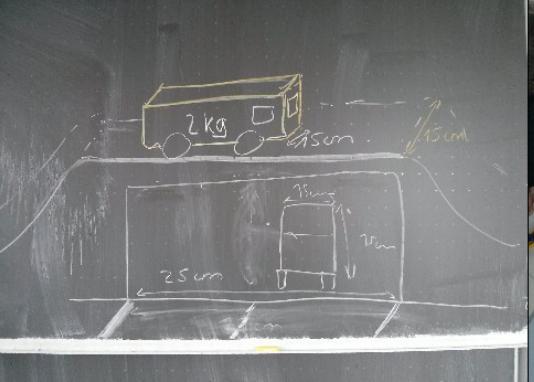
Volkswagen

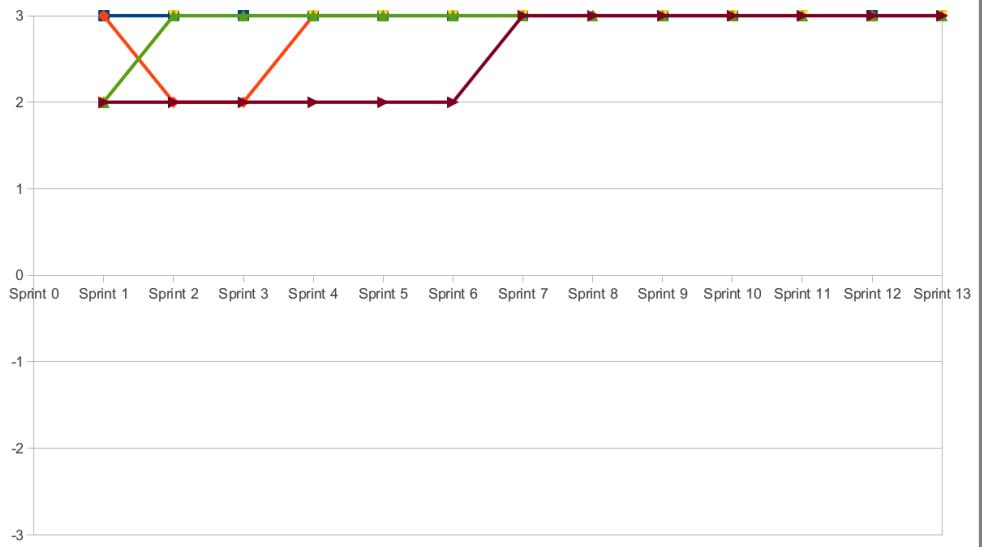
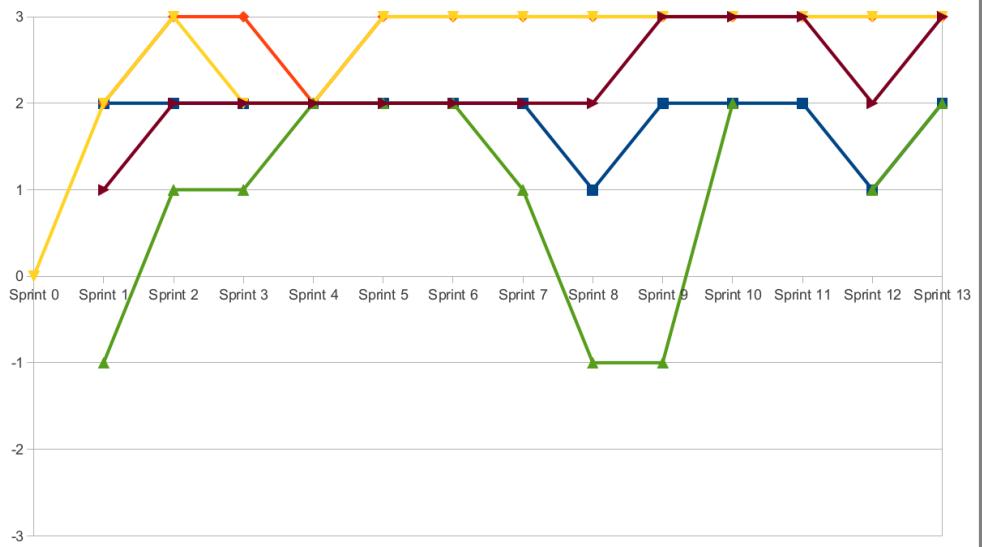
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The AMOS Project
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The 2020 AMOS Projects

1. A tool for auditing software projects, with msg
2. A file system crawler for long-term storage, with GRAU Data
3. An app for on-the-spot job applications, with Consileon
4. Atomic cross-chain swaps for the block chain, with ChainSquad
5. Tagging mergers & acquisitions documents, wth Infineon
6. Real-time scheduler for Cloud Foundry, with DATEV
7. Transaction process mining, with adorsys
8. Declarative configuration of Cloud Foundry, with DATEV





MSG Audit-Tool

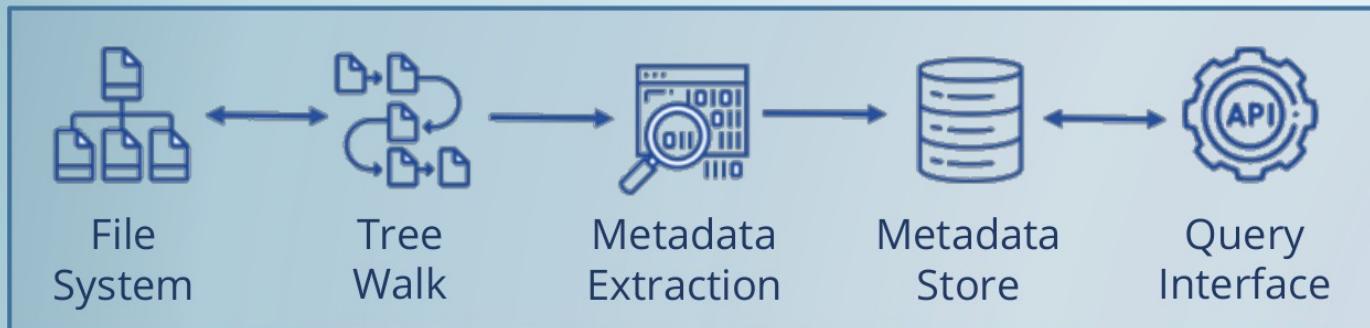
Implementation of a web-based software solution to facilitate the audit process according to ISO/IEC 25010. The software enables the consultant to manage audit projects, monitor the audit progress, and export project results on site at the customer's location.



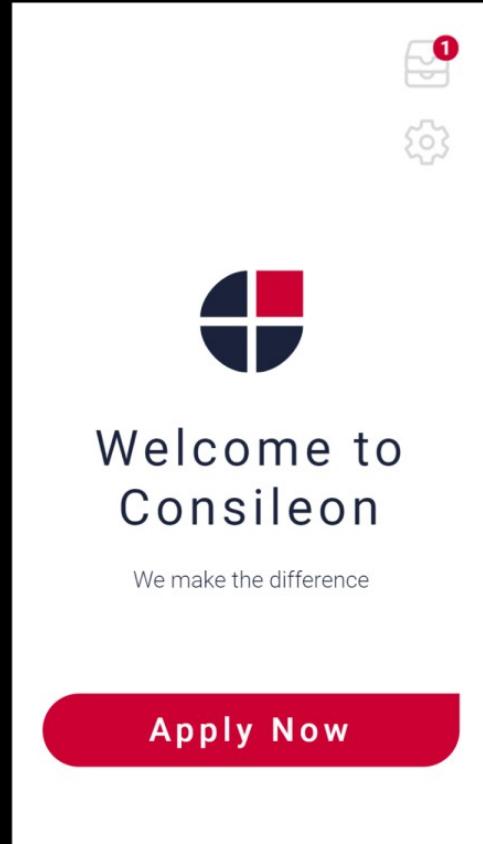
Team 2: Metadata-Hub



Metadata-Hub intelligently crawls large file systems in order to provide a platform-independent retrieval, storage, and query mechanism for metadata, allowing end-user applications to conduct efficient data analyses on large file systems.



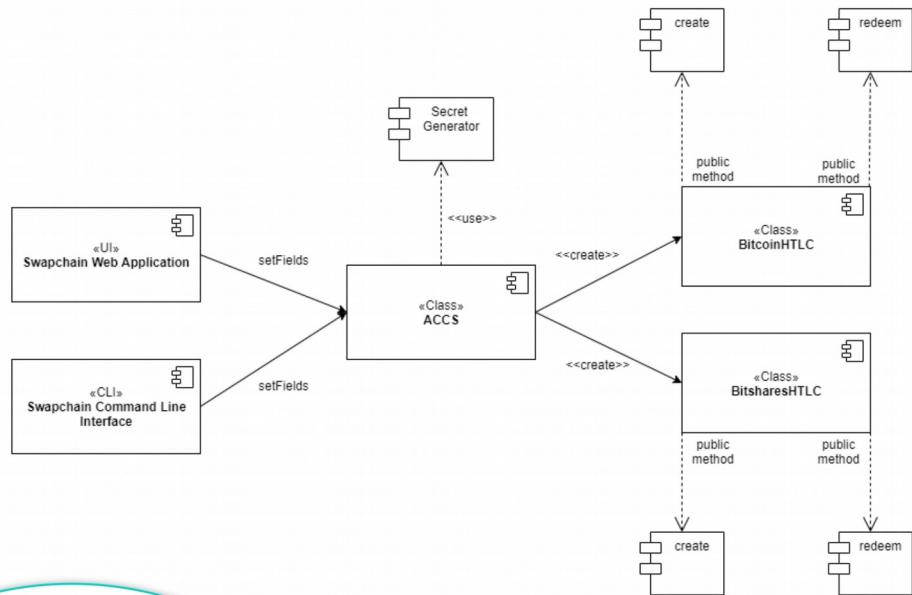
digitact



The future of job fairs



Software Architecture



FRIEDRICH-ALEXANDER
UNIVERSITÄT
ERLANGEN-NÜRNBERG



Our Web-App & CLI

The screenshot shows the Swapchain website and command-line interface. The top navigation bar includes links for swapchain, Trade, CLI, Orderbook (with a 'WIP' badge), Documentation, and a user icon. The main content area features a teal header with the text 'Cryptocurrency exchange without trust'. Below the header, a subtext states: 'Swapchain creates a trustless environment for the decentralized exchange of assets using Hashed Time Lock Contracts'. Two buttons are present: 'Trade now' and 'Learn more'. To the right is a graphic of several interconnected teal cubes. The bottom section shows a terminal window with the Swapchain CLI interface:

```
version: sprint-12-release
Welcome to swapchain-cli.

? Are you proposer or accepter? accepter
? On what network do you want to trade? testnet
? Would you like to give BTC or BTS? BTS
? Please enter the priority of the Bitcoin transactions: 0
? Please enter your Bitcoin private key (WIF format): dMfxssR3YgvoyhuW35jeu8Q1YxkBcpVh146CTsCLtGnfhkBxk27
? Please enter your Bitsshares private key (WIF format): 5hTjdr3NXGIRSMnrcemetGDrattJA7caG5jihFmyQLwEMC7fr
? Please enter the Bitcoin public key of the counterparty: 027c921e0b55383e8b4412488c5baf007c3d2421890da895599a4c2f750f5fd911
? Please enter the Bitsshares account name of the counterparty: amos
? Please enter the amount of BTS you want to give: 200
? Please enter the exchange rate in BTS/BTC: 200000
? Please enter the secret hash you received from the proposer: ■
```

Industry Partner

Infineon Technologies



- Largest Semiconductor manufacturer in Germany
- 41,400 Employees
- 8.0€ Billion in Revenue (2019)
- Headquarters in Neubiberg, Germany
- Industry Supervision by Walter Nirschl

Project Description

The idea of an automated tagging application originates from the M&A department of Infineon. During the process of an acquisition or sale of a company, a large number of documents is collected, which later on serves as a basis for decisions for potential M&A deals. In order to cope with the large number of documents, tagging is essential for the employees. Therefore, the question of automated tagging was discussed within the company. The goal was to build an application in such a way that basic functionalities, such as manual document tagging, are retained and on top, automated tagging based on machine learning can help to replace time consuming manual tagging.

Use Cases

The user is able to work with various document types like pdf, docx, html, and email, just to name a few.

Various documents can be uploaded from the users file system and downloaded to the users' file system in an easy manner

Keyword Models can easily be exported or imported, e.g. from an existing ERP system to reduce manual effort

A search functionality can be used by the user to find results in the document content as well as the provided metadata on the document overview page

Using the Keyword Model-based tagging solution the user has the possibility to define a hierarchical keyword model with various dimensions and keywords by himself and afterwards apply it to the documents. The documents then only get tagged with tags that the user defined by himself

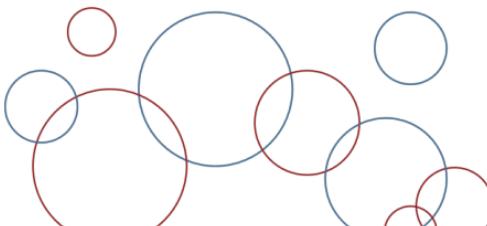
The user has the option to tag single or multiple documents manually or use the automated functionalities of InfiniTag

The landing page provides insightful dashboards, e.g. to understand how many documents or keyword models are currently worked on

Single as well as multiple documents can be selected to apply manual actions on them, like adding or deleting keywords

The AI-approach is the second approach that the user can use to tag the documents. A clustering algorithm then automatically creates and assigns suitable tags to documents

The user is always able to understand what functionality has been used to tag the documents, since the tags are colour-coded. Four colors for four different types of tagging: 1) imported keyword 2) manually tagged 3) tagged using KWM-based tagging 4) tagged using AI-based tagging



Real-Time-Scheduler

a Cloud Foundry based highly efficient and robust Scheduler

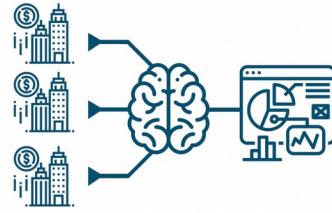
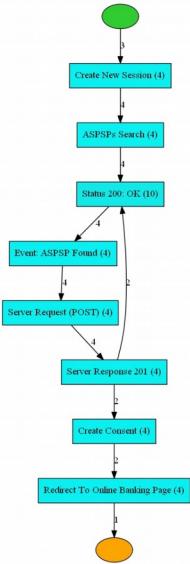
The Team - Seven very brave Honey Badgers



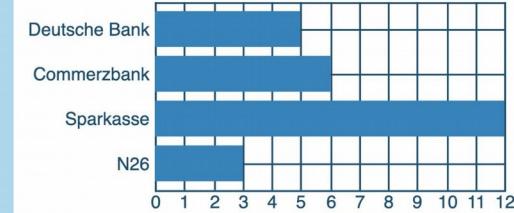
Pascal Vahldiek, Marco Döll, Felix Müller, Yevgeniy Lutski, Lorenz Oberhauser,
Johannes Biermann, Christoff Schaub

PSD2Miner

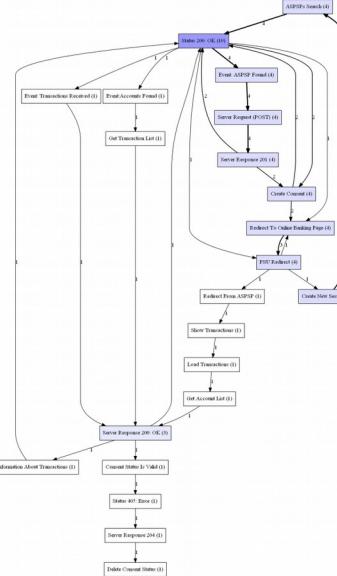
Optimize the workflows of your multi banking gateway



Visualize connections and implications of individual implementations



Analyze how different banks implement the XS2A process



Partners

FAU FRIEDRICH-ALEXANDER
UNIVERSITÄT
ERLANGEN-NÜRNBERG

adorsys

DATEV meets AMOS@FAU

Project 8 Cloun Foundry ® Config

DOMAIN INDEPENDENT OPEN-SOURCE COMMANDLINE TOOL
FOR DECLARATIVE CONFIGURATION OF MICRO SERVICES IN CLOUD FOUNDRY



2020 AMOS Demo Day Agenda and Rooms

10:15 Welcome Address	Riehle	AMOS Demo Day Plenum bit.ly/amos-plenum
10:25 Project Introduction	Teams, Capraro	AMOS Demo Day Plenum bit.ly/amos-plenum
10:40 Virtual Demo I	Teams	Team 1: Audit Tool bit.ly/amos-team1
10:55 Virtual Demo II	Teams	Team 2: Metadata Hub bit.ly/amos-team2
11:10 Virtual Demo III	Teams	Team 3: Student-Job App bit.ly/amos-team3
11:25 Virtual Demo IV	Teams	Team 4: ACCS App bit.ly/amos-team4 Team 5: ML-based Tagging bit.ly/amos-team5 Team 6: Cloud Foundry Scheduler bit.ly/amos-team6 Team 7: Prozess-Mining App bit.ly/amos-team7 Team 8: Cloud Foundry Config bit.ly/amos-team8
11:40 Closing Remarks	Riehle	AMOS Demo Day Plenum bit.ly/amos-plenum
11:45 Open Discussion	Teams, All Interested	Team rooms, see above



Thank you! Questions?

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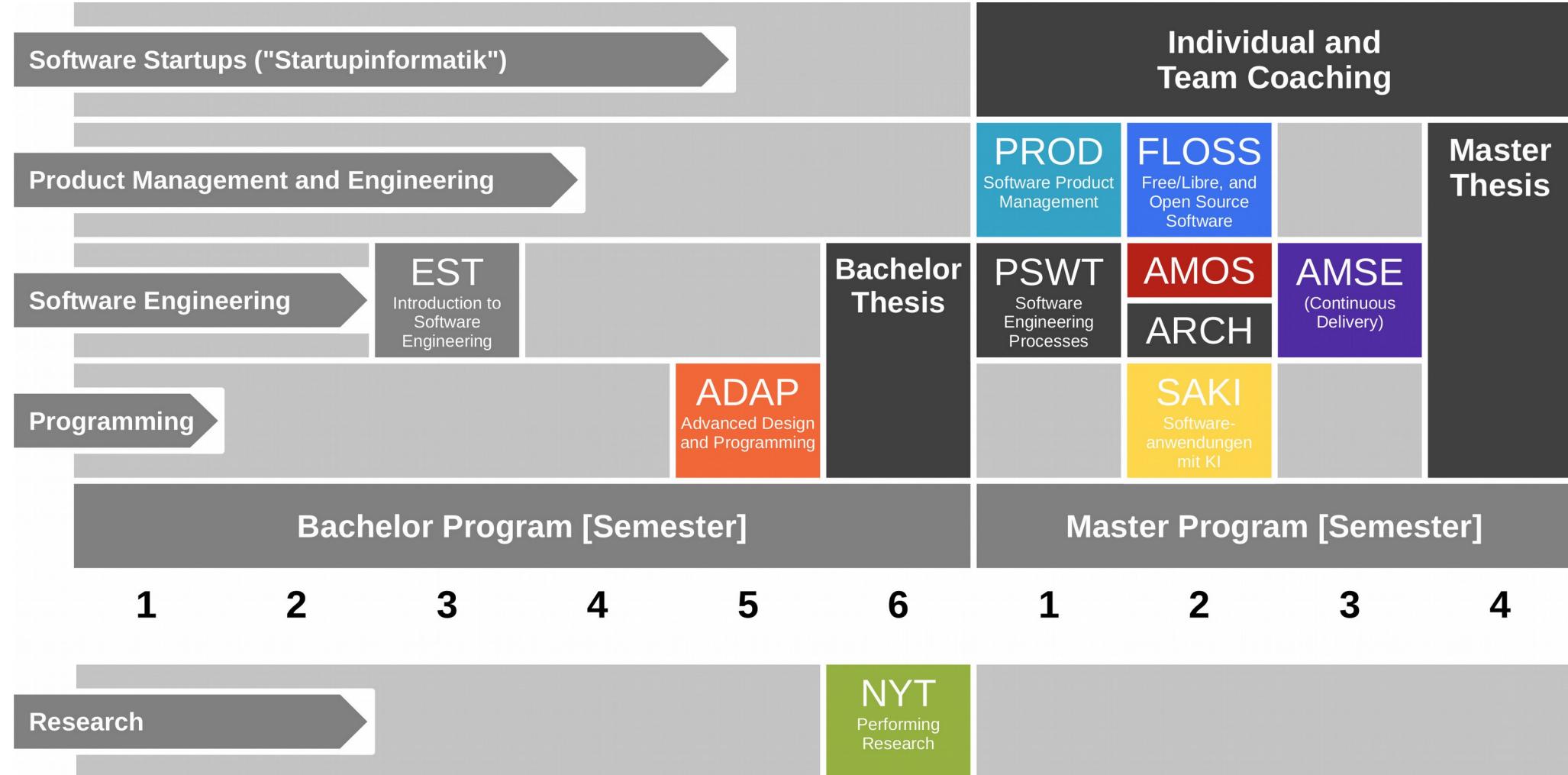
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- Contributions
 - ...

The Professorship for Open Source Software

- Open source strategy and governance
- Inner source software development
- Continuous integration and delivery
- High-quality requirements engineering
- Collaborative knowledge management
- More information at <http://oss.cs.fau.de>

Course Position in Curriculum



EXIT

Reception

Projection

Catering

Junk /
Left Tables

Team 5

Table

Team 1

Seating

Team 7

Team 6

Team 2

Team 3

Team 4

EXIT

EXIT