COURSE 9

BIG DATA

Co-funded by the European Union

Study load: 6 credits
Total study load: 150 hours

EU-Partner(s): AP, HOWEST
TC-Partner(s): MUNI

PREREQUISITES

- Data Management & Visualisation

STUDY MATERIALS

- Moodle course – digital course
- Presentations
- Elaborated examples and cases
- Weblinks
- Video recordings
- Demos

TECHNICAL REQUIREMENTS / LAB EQUIPMENT

- Microsoft Office
- Microsoft Visual Code
- Spyder
- Jupyter Notebook
- Anaconda
- Linux
- Git / Github

- PuTTY
- AWS

LEARNING OUTCOMES

- Analyses, programs and integrates backend services for managing an application's data
- The student can make a well-founded selection of a data storage system
- The student makes a well-founded selection of the right backend service technology
- The student uses existing backend services technologies (input, coding, output, maintenance)
- The student integrates the backend tailored to the frontend
- The student can establish communication between the application and the data storage system

ACTIVITIES

- Activating lectures
- Labs

CONTENT

- Data intensive applications
- Relational databases versus NoSQL
- Timeseries, Graph and Document stores
- Text Search
- Batch and stream processing frameworks
- Distributed training: data parallelism and model parallelism
- Message queues
- IoT datapipeline in the cloud

EVALUATION

First exam chance

FORM	%	REMARK
Written exam	40.00	
Continuous assessment	60.00	Various interim assignments

Second exam chance (re-sit exam)

FORM	%	REMARK
Exam	100.00	