

#### **LEARNING OBJECTIVES**

**CONTENT & TOOLS** 

#### **Tools**

- Databases and SQL for information management tasks
- Python for programming and automating IM related tasks
- Using public/commercial APIs to enhance your solution

## Concepts

- What is information? Why does it need to be managed?
- What is an information system? What are the typical components?
- Why should we, and how can we model information?
- What is a database? What types exist, and for what?
- What is an API, and how can use it to automate information related tasks?



# Analytical thinking and problem-solving

- How to abstract away complexity:
  - Data modeling
  - Process modeling
- How to divide a large problem into many smaller ones?
  - Planning and building information systems
  - Writing programs
  - Building SQL queries
- Learn how to solve problems with computers!
  - Design algorithms to solve problems



#### **ORGANIZATIONAL TOOLS**

#### <del>Zoom</del>

■ For hybrid participation and our sessions on Friday (Zoom room for this module)

## **ILIAS**

Central place for all material in a structured manner (goto ILIAS)

## Microsoft Teams

Chat group for quick communication



#### **SCHEDULE & EXAM**

## Sessions

■ Monday: 15:00 - 16:30 in HR0004

■ Friday: 11:30 - 13:00 in HR0004

#### Examination

- Oral examination after the end of lectures (if we are a few students only)
- 1 h written examination (if we are a larger group)

