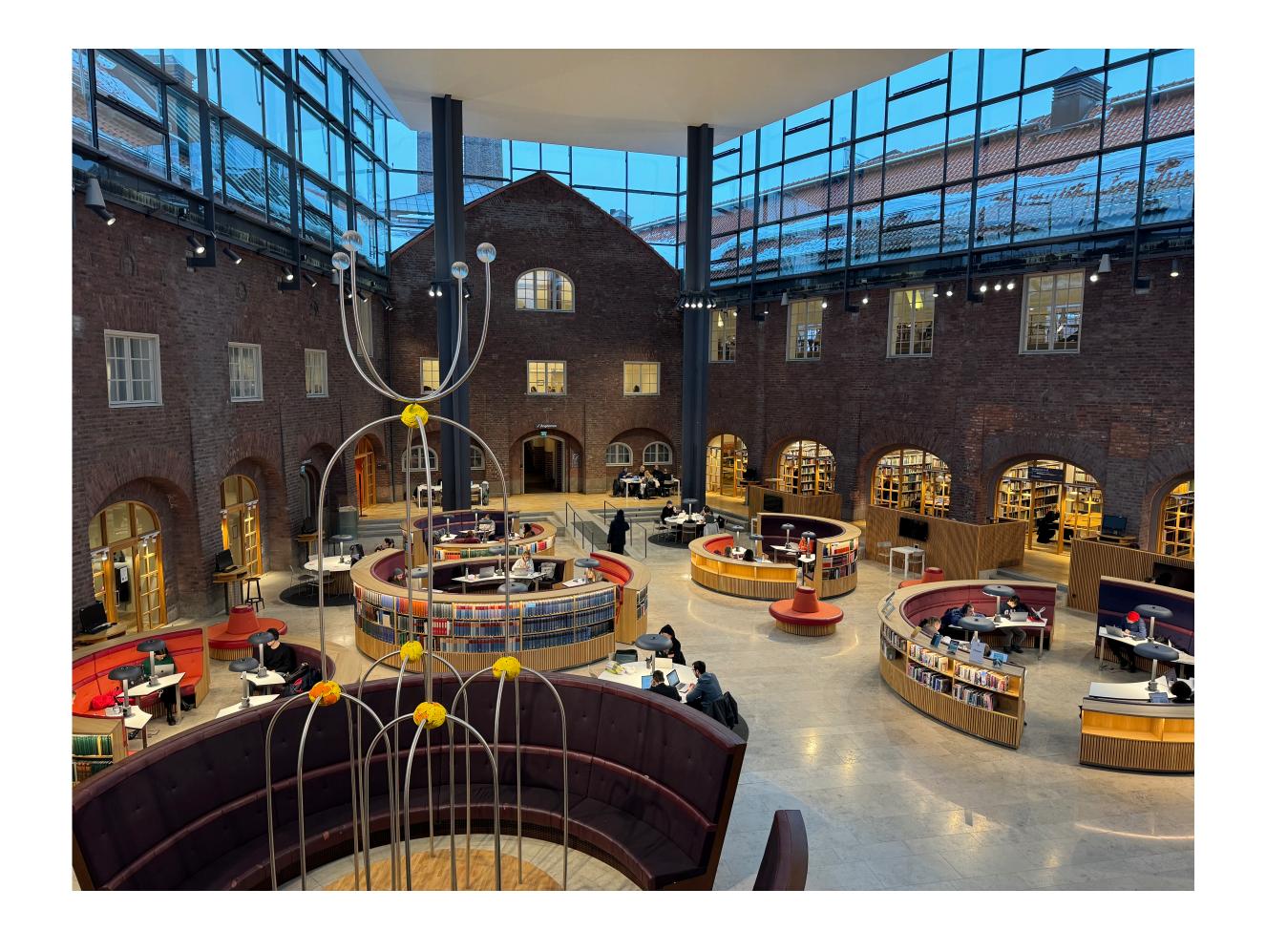
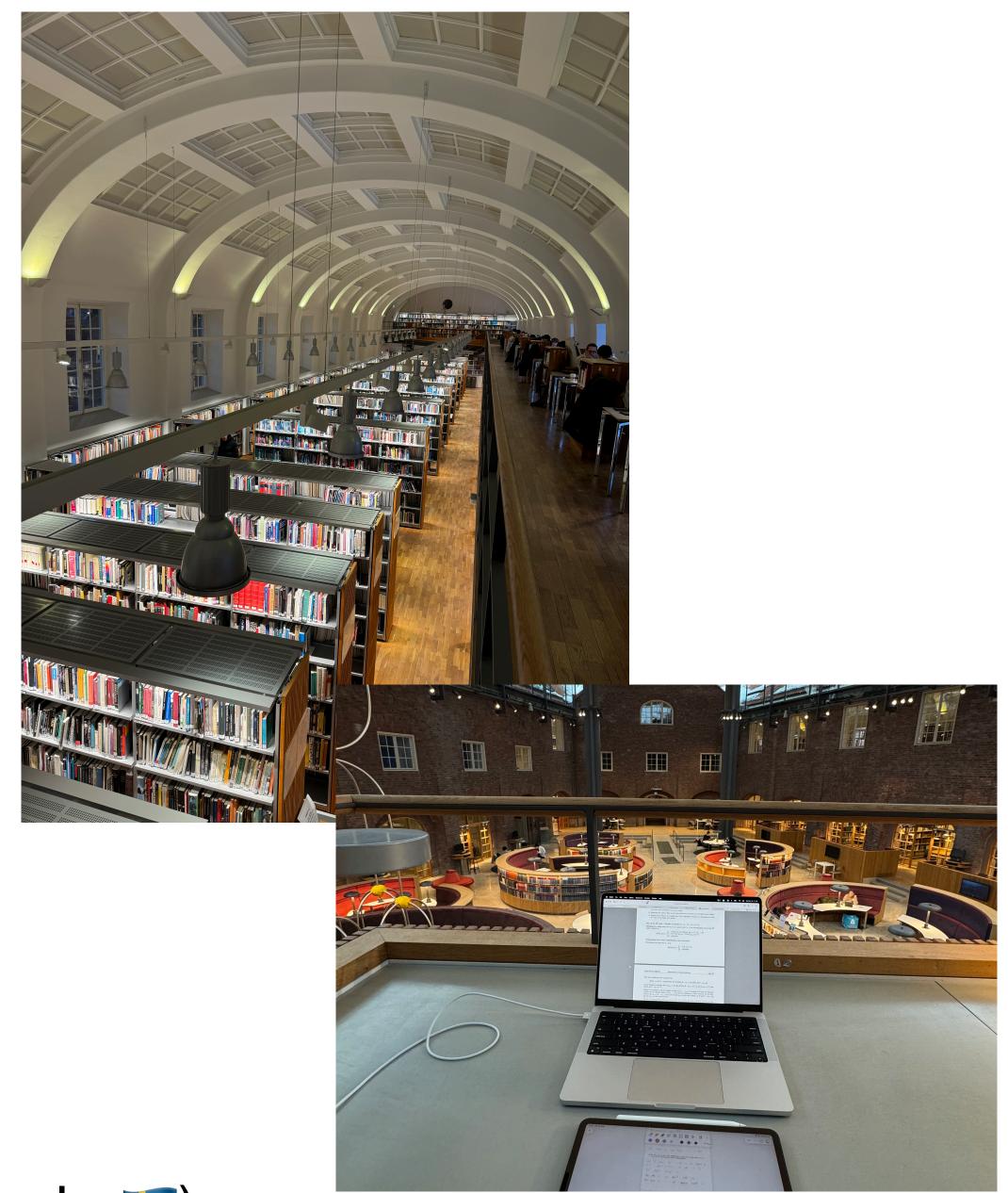
### Week 13 — Sheet 12

**Algorithms and Data Structures** 

### Fun Fact





KTH Royal Institute of Technology (Stockholm )

# Exercise Sheet 12

#### General Information

- Theory Exam on 22.01.
  - 2 hours
  - 60/100pts
- Programming Exam on 29.01.
  - 3 hours
  - 40/100pts

#### General Advice

- Split up what you have to do
- Define clear (short term) goals
- Plan what you want to do in a given day/week
- What worked for me: plan in terms of half-days instead
- Combine topics/subjects you like with ones you don't like
- Know when to take a break; fill it with idle work or things you like
- Active vs. Passive studying
- Theory vs. Practice (Knowledge vs. Speed)

#### General Advice

- Don't jump between tasks too much
- Think of how much time you want to spend on each task
- Compete but don't compare
- Eat and Sleep!
- Plan realistically (ideal preparation vs. realistic preparation; min/max-ing)

#### Overview

- Mathematical Foundations
  - O-Notation, Limits, Induction...
- Searching Sorting
  - Various Sorting algorithms and a few searching algorithms...
- DP
  - Various DP problems and how to solve them...
- Data Structures
  - Abstract Data Types, AVL, binary tree...
- Graph Theory
  - General theory, BFS/DFS, shortest path, MST...

# HS22 and Exam Information

# Exams