Programming, Algorithms and Data Structures

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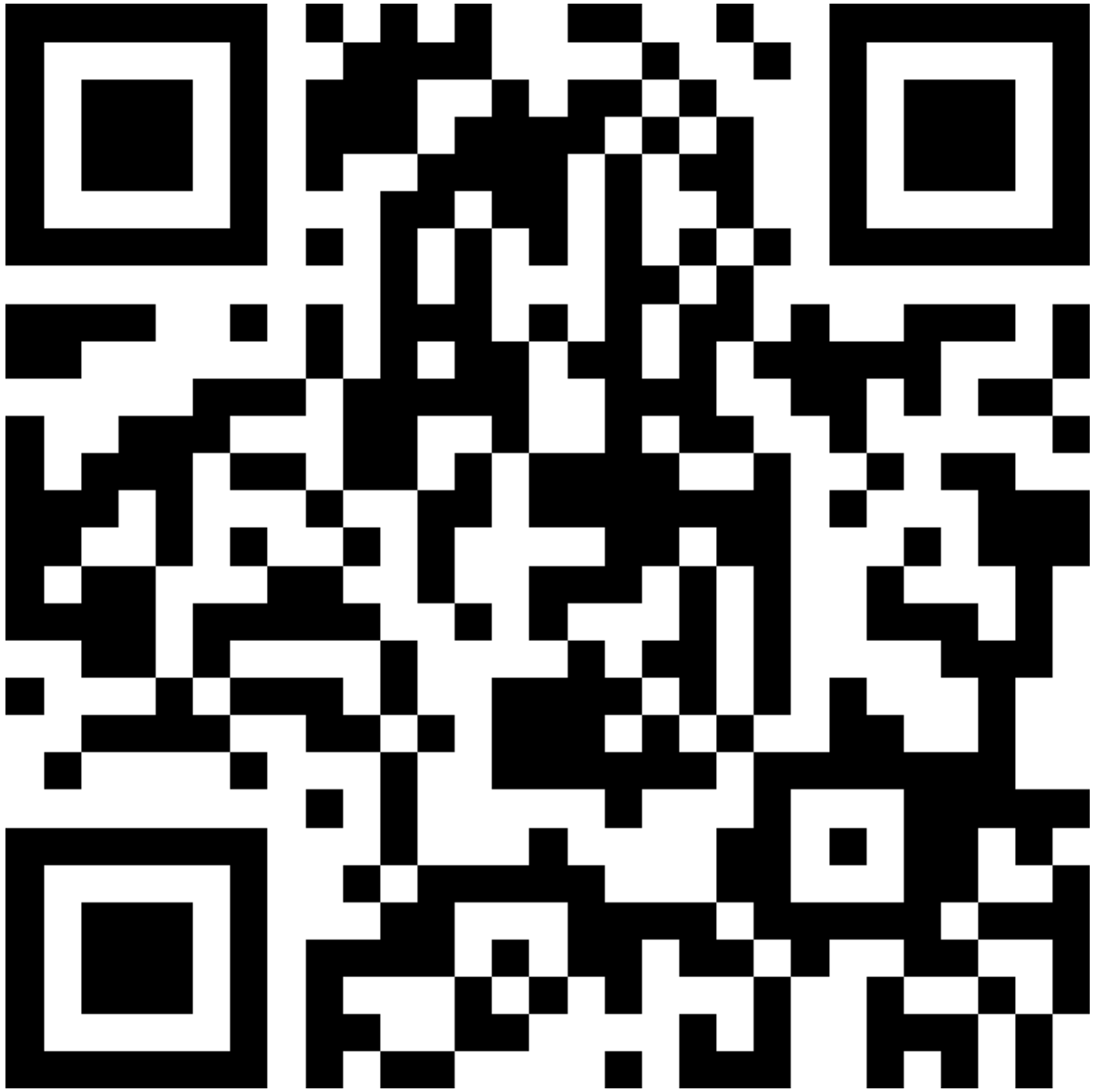
CDSCO1004U/7.5 ECTS

Outline

1. Expectation Survey
2. CBS Survey
3. About Exam

Are Expectations met?



Survey

Survey is sent to you

You choose not to fill it in

You choose to fill it in

Access your evaluation(s):
survey.cbs.dk
or in your student e-mail inbox

Results are discussed at study board meetings

Changes are implemented

Your fellow students will benefit from your evaluation

… just like you will benefit from their evaluation

Examination

Programming, Algorithms and Data Structures:

Exam ECTS	7,5
Examination form	Home assignment - written product
Individual or group exam	Individual exam
Size of written product	Max. 15 pages
Assignment type	Project
Release of assignment	An assigned subject is released in class
Duration	Written product to be submitted on specified date and time.
Grading scale	Pass / Fail
Examiner(s)	One internal examiner

- Students will only be given guidelines and themes for the exam.
- I will upload the guideline in Canvas (Nov 29 at 08:00 hrs) and students must submit 15-page report in Digital Exam.

About Project Report Template

About Project Report Template

- Title
- Author name with STUDENT ID
- Abstract (0.5 - 1 Page)
  - A summary of the project:
    - Problem statement
    - Objective of the solution
    - Summary of methods used and
    - Results or expected outcomes
- Keywords: 3 to 5 words

About Project Report Template

- Introduction
  - Background of the application domain
  - Problem Statement
  - Importance of the project
  - Objective(s) of the project

- Requirements Analysis
  - Functional Requirements
    - List and description of key functionalities.
  - Non-Functional Requirements
    - Scalability, performance, security, etc.
  - Constraints
    - Existing hardware/software dependencies; time and budget constraints

About Project Report Template

- System Design
  - Architectural Design
    - High-level overview of the system architecture: Block diagram
    - Include diagrams (e.g., flowcharts) for processes.
  - Module Design
    - Detailed description of each module/class with purpose and functionality
- Implementation
  - Tools and Technologies
    - No need to write about Python language.
    - Frameworks/Libraries/Tools: Flask, Pandas, Matplotlib, etc.
    - GitHub: URL of your code
  - Code Structure
    - Directory structure of the project
  - Key Code Snippets (To showcase your expertise)
    - Highlight important functions/classes. Example: Data analysis logic

About Project Report Template

- Results and Discussion
  - Results:
    - Screenshots of outputs, such as a running App or visualized data.
    - Discuss about the outputs based on the problem requirements.
  - Discussion:
    - Challenges faced during implementation.
    - Solutions adopted to address issues.
  - Your Learnings

- Conclusion and Future Work
  - Conclusion:
    - Summary of accomplishments and findings.
    - Reflect on objectives and whether they were met.
  - Future Work:
    - Features or improvements planned for the next iteration.

About Project Report Template

- Learning objectives (1 to 1.5 pages): Discuss whether you met all or partial learning objectives of the course.
- References (APA 7th Edition Style)
- Appendices (Optional Additional diagrams, raw data, or detailed code samples.)

Advice

- Code must run.
- Make it simple but efficient.