CO-560-B
Databases **Project**

Instructor: Peter Baumann

email: pbaumann@constructor.university
office: room 88, Research 1

Lab Project

- Implement core of an individual web service

  - Guided

  - Teams of 2 – 4

- Topics? suggest your own!

  - Earlier examples: cocktail database, stock trade monitoring, hospital drug inventory

- Tech platform: LAMP = Linux, Apache, MYSQL, [PHP | Python]

- Lab: offline work, submission via repo, discussion in class

  - Weekly lab slots with TA availability: Thu 11:15 – 12:30

Tech Platform

- LAMP = Linux, Apache, MYSQL, [PHP | Python]

Alternatives to LAMP:

- MEAN = MongoDB, Express.js, Angular.js and Node.js
  - intro1, intro2, tutorial

- MERN = MongoDB, Express.js, React.js, Node.js
  - Intro

Lab Project (contd.)

- Develop wherever you want, but final handover on a ClamV Linux box!

  - Support only for ClamV – *you will want to do it there*

  - Support only for PHP and Python

- Exercises may require additional own research

- Might randomly inspect & potentially discuss source code with you

  - *better understand what you submit*

  - Have code accessible – on ClamV

- No AI-generated code

  - We will check this – and yes, with AI support

Lab Project: Evaluation

- main evaluation criteria (no particular order):

  - Own work

  - complete wrt. requirements

  - engineering (bug-free, project & code documentation, coding quality, ...)

  - user-friendliness, professional look & feel

  - complexity (in absolute terms & in comparison to other teams' work)

  - own understanding

Where to Work

- Reserved CLAMV machine clabsql

  - clabsql.clamv.constructor.university = 10.60.36.1

- Connect with:

  - ssh <CampusNet Name>@clabsql.clamv.constructor.university

  - ssh <CampusNet Name>@10.60.36.1

  - Password as distributed by CLAMV

- Assistance:

  - TAs, instructor

  - Dr Geleßus, AGelessus@constructor.university (CLAMV topics only!)

Small Intro to Interactive SQL Access

- Login to *clabsql*

- Launch mysql client: mysql -u user -p

- Pick database: use dbws;

- List tables: show tables;

- List table definition: describe Sailors;

- Send SQL query: select * from Sailors;

Web Pages

- On *clabsql*, files sitting in your home directory -> public_html/
  are accessible via web server

- Example:

  - User pbaumann

  - File public_html/index.html

  - Accessible via https://clabsql.clamv.constructor.university/~pbaumann/index.html

- Caveat: web server must have permissions to access, minimum:

  - Files: permissions 644

  - Home directory & public_html & subdirectories: permissions 755

Finally, Logistics

- Assignment sheets distributed every Thu evening, Submission deadline following Thu midnight 23:59

- Bring your questions

  - Anytime during office hours to the Tas (Teams, email)
    - *Tsonev, Nikolay Lachezarov <ntsonev@constructor.university>*
    - *Pico, Mateo <mpico@constructor.university>*
    - *Tsignadze, Nana <ntsignadze@constructor.university>*
    - *Tadic, Milica <mitadic@constructor.university>*
    - *Moryakov, Emil <emoryakov@constructor.university>*

  - Thu 11:15 helpdesk session