Data-driven systems

Requirements

Course instructors

- Mrad Mohamed Azouz
  - Lecturer
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- AL-Magsoosi Husam
  - Lecturer
  - hus_almagsoosi@edu.bme.hu
- István Albert
  - Course administrator
  - Albert.istvan@aut.bme.hu
- Imre Gábor
  - Java: JPA, SpringData
  - Imre.Gabor@aut.bme.hu
- Benedek Zoltán
  - REST, ASP.NET Core
  - Benedek.Zoltan@aut.bme.hu

Course management

- Moodle
  - Course administration and materials on Moodle
  - https://edu.vik.bme.hu
- Lecture notes, seminar written guides, homework
  - https://bmeviauac01.github.io/datadriven-en
  - Some topics will not be discussed in detail during the lectures → lecture notes also part of the curriculum!

Form of education

- Lecture
  - Topics: see Moodle
- Exercises
  - 6, every two weeks
  - At the time according to Moodle
  - From the second week, no lab on the first week
- Homework
  - During the semester, every two weeks
  - Deadlines in Moodle, tasks on Github
  - The process is described on Github, follow carefully!
  - "iMsc" points does not count!

Requirements

- Lectures
  - Attendance is not mandatory… but you can get plus points when you attend
  - The topic of the midterm and the exam is based on the lectures
- Seminar (in laboratory)
  - **Active attendance required**
  - Starts at hour:15, you must **be on time**
- Mid-semester homework is mandatory
- Midterm test
- Written exam

Signature

- Midterm is **min 40%**
- Active participation in laboratory exercises
  - You must be on time
  - **Min 4 times**
  - For laboratory on holidays: do it at home following the documentation, they count as participated
- Min **10 points** from homework

Exams

- Written exam: **50 points**
- Midterm: **30 points**
- Homework: 4*5=**20 points**
- Sum: **100 points**
- Additional points
  - Lecture attendance: max **11 points**
  - When attending all labs: **2 points**
- 0-50p fail, 51-62p pass, 63-75p satisfactory, 76-87p good, 87-p excellent
  - If exam point is below 20 you fail regardless of extra points

What will you know completing the course?

- How a classic three-layer architecture and a domain-driven architecture are built
- Programming a relational database: writing stored procedures and triggers in T-SQL
- Access databases from object-oriented environments: C# and Java
- You will know the JSON and XML formats, you can use them in C# and databases
- Create REST APIs and GraphQL queries

Midterm and exam

- We would like to see the above in the midterm and exam!

- You have to write SQL script, Java and C# code **on paper**!

- True-false questions
- Explanatory theoretical questions