Web Application Development
(LTAT.05.004)

COURSE INTRODUCTION

MOHAMAD GHARIB
UNIVERSITY OF TARTU
The **objective** of this course is to introduce key concepts and technologies for developing **modern web applications**.

The course covers:

- Essential Web technologies and languages (e.g., HTML, CSS, Javascript).
- A frontend development frameworks (Vue.js).
- A backend development frameworks (Node.js).
- Software testing in the context of web applications.
Teaching staff

Mohamad Gharib
Lecturer

Vimal Kumar Dwivedi, Viljar Kärgenberg, Sander-Karl Kivivare, Iwada Eja Bassey, and Konstantin Tenman
Supervisors of practical sessions
Course content

- Multitier Architecture
- Hypertext Transfer Protocol (HTTP)
- HyperText Markup Language (HTML)
- Cascading Style Sheets (CSS)
- JavaScript
- Document Object Model (DOM)
- JavaScript Object Notation (JSON)
- Asynchronous JavaScript And XML (AJAX)
- Frameworks (Vue.js)
- Backend (Node.js)
- Testing
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Course structure

- Up to 16 Lectures (including a lecture for the Exam preparation).
- Up to 15 Practical sessions (including four sessions for homework discussion and grading).

4 Homework + Exam = 100 points (we will speak about them latter)

See details on the Wiki page: https://courses.cs.ut.ee/2022/WAD/fall
Course structure

Lectures

Practical sessions

Why, What, How

Why, What, How
Course structure

Lectures

Practical sessions

Homework #1 HTML +CSS
Homework #2 Javascript
Homework #3 Vue + Vuex
Homework #4 Node.js +DB

Lectures
Why, What, How

Practical sessions
why, What, How
Course structure in details

- WAD basic concepts
- JavaScript
- Vue.js + Vuex
- Node.js (DB + security)
- Testing
  - HTML
  - DOM + AJAX
  - Homework #3
    - Vue + Vuex
  - Homework #4
    - Node.js + DB + security
  - Homework #1
    - HTML + CSS
  - Homework #2
    - Javascript

EXAM
Grading

Homework (team work – 3 students): 50 points
- Homework 1 (Week 6) - 10 points
- Homework 2 (Week 9) - 10 points
- Homework 3 (Week 12) - 15 points
- Homework 4 (Week 16) - 15 points

Exam: 50 points (minimum of 21/50 required to pass the exam).

- The resulting sum (out of 100) will be mapped to a grade between A and F (minimum of 51/100 required to pass the exam).
- Two exams will be offered, and one resit exam will be offered to students who fail or unable to attend any of the two exams.
Course rules

- You will be split into teams of 3 members, you need to register your team by the end of next week (Link).

- A homework is not expected to be divided among team members, and they will be presented and discussed by ALL team members during practical sessions.

- Points will be granted individually not as a team. Optimally, all the team members will get the same points.

- Do not forget to join the Slack Workspace (Link)
Course communication

Why you should join Slack?

General channel: contains announcement, important information, etc.

Groupmates: helps to connect students trying to find their group mates.

You do not have access to this one 😊

Q&A: list a common question and receive an answer.
What do you need?

IDE

VS Code

Atom

Sublime

WebStorm
What do you need?

**IDE**
- VS Code
- Atom
- Sublime
- WebStorm

**Web Browsers**
- Chrome
- Firefox
What do you need?

**IDE**
- VS Code
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**Web Browsers**
- Chrome
- Firefox

**Other tools**
- Postman
- Git
How to study

- Attend/watch the lectures.
- Attend the practical sessions, and do the related tasks.
- Do the homework.
- Do the practical examples.
- Read the additional resources.
- Apply everything you learn.
- Search ... Search ... Search ...
Experience has shown that your final grade is highly correlated with lectures attendance.
Thank You for your attention

Mohamad Gharib
mohamad.gharib@ut.ee

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