

WEB DESIGN AND PROGRAMMING

INTRODUCTION 0

FATİH SULTAN MEHMET VAKIF UNIVERSITY

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Motivation

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- ❖ Web development is one of the most dynamic and widespread areas of the current software ecosystem
- ❖ Through this course, you will gain experience in building a complete web application from scratch that solves real problems, is ready for deployment, and is maintainable
- ❖ Version control, installation/deployment, and regular development habits (commit/push) are among the core learning outcomes.



Course Flow - General Structure

- ❖ Web development is one of the most dynamic and widespread areas of the current software ecosystem
- ❖ Theoretical + Practical: Each week will begin with theoretical instruction, followed by practical application in laboratory sessions
- ❖ Laboratory: Practical examples given by the instructor will be individually implemented by all students during lab hours
- ❖ Term Project: A full-stack web application will be developed

Term Project Details

- ❖ **Content:** A web application with database, back-end, and front-end components
- ❖ **Project Selection:** Each student will work on a single project - project name and details must be determined by the 3rd week
- ❖ **Repository:** A private GitHub repository must be created - repository creation date and commit history will be checked
- ❖ **Setup:** All necessary development environments must be ready by the 4rd week

Project Process and Expectations

- ❖ Web development is one of the most dynamic and widespread areas of the current software ecosystem
- ❖ Process: The project will be developed throughout the semester, with regular commits pushed to GitHub
- ❖ Important: Work compressed into the last two weeks will not be accepted
- ❖ Expected Outputs:
 - ❖ A working back-end
 - ❖ Persistent data layer
 - ❖ Functional front-end interface
 - ❖ Basic documentation
 - ❖ Published on aws cloud

Technologies to be Used - Programming and IDE

❖ Programming Languages:

- ❖ Java (recommended: JDK 19+)
- ❖ JavaScript (ES6+)

❖ IDE:

- ❖ IntelliJ IDEA (Community or Ultimate)•

❖ Frameworks:

- ❖ Back-end
 - ❖ Spring Boot (3.x)
- ❖ Front-end
 - ❖ Nodejs
 - ❖ Vue.js (3.x)

Technologies to be Used - Database and Tools

❖ **Database:**

- ❖ MySQL (8.x)
- ❖ MySQL Workbench

❖ **Dependency Management:**

- ❖ Maven

❖ **Version Control:**

- ❖ Git
- ❖ GitHub

❖ **Cloud:**

- ❖ Amazon Web Services (AWS)

Requirements and Expectations

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- ❖ The use of all the above technologies is a **mandatory** part of the course
- ❖ Students are responsible for installation, basic usage, and active application of these tools within the project
- ❖ **Students who do not wish to use or learn these technologies may drop the course**



Evaluation System

- ❖ **Final Exam:** 50%
- ❖ **Term Project:** 50%
- ❖ **Midterm:** None
- ❖ **Certificate:**
 - ❖ Digital certificates will be given to students who pass with **AA** or **BA** letter grades

Certificate - Letter Grade System

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Letter Grade System	
Letter Grade	Score Range
AA	≥ 85
BA	≥ 80
BB	≥ 70
CB	≥ 65
CC	≥ 60
DC	≥ 50
DD	≥ 45
FD	≥ 40
FF	< 40



QUESTIONS





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