IF3110 – Web-based Application Development

Introduction

Objectives

› Understanding on how Internet works, how Internet-based Application works

› Ability to develop an application using various technologies at server & client side

› Ability to design an Internet application w/ considering various qualities (e.g., security, performance, usability)

Course Activity

› Courses: 3 credits

  › 3 hours lecture – Monday 07.00 – 8.40 and Wednesday (09.00 – 10.00)

  › 6 hours independent activities (e.g., exploration, assignment)

  › Lecturers:

    › K1: Yudistira Asnar (yudis@itb.ac.id)

    › K2: Muhamad Koyimatu (koyimatu@itb.ac.id)

    › K3: Yuda Sukmana (yudasukmana@itb.ac.id)

› Assessment

  › Assignments: 1 (continuous project)

  › Exams: Quiz, Mid, and Final

  › Note: Assignments are dominant (55:45)

    › This might be slightly adjusted based on the participants' performance

Course Activity: Assignment

› It is done <u>in a group of 3 students</u> (defined by lecturers)

› It must be submitted following the procedure defined by assistants

› Some assignments need to be presented to the assistants

› More details will be defined at the assignment's Term of References

Noteworthy

› All forms of cheating will be punished severely

  › Faking your attendance

  › Copying others' works

  › Ask GPT (or something similar) to write code for your project

Topics

› Basic Concepts of Internet and Internet Application

› HTTP

› HTML + Java Script + CSS

› Client Side: Java Script and its advances

› Server Side: PHP

› Data Access

› AJAX, Single Page Application

› Web Framework: Node.js++

› Cloud

› Web Service

› Intro to

   › Performance and Security Engineering

   › Web Testing

   › Usability

   › Microservice

   › Web 3.0

References (some)

- Full Stack Web Development: The Comprehensive Guide, Philip Ackermann, Rheinwerk Computing, 2023

- Web Technologies: A Computer Science Perspective, Jeffrey C. Jackson, Prentice Hall, 2006

- Developing Large Web Applications: Producing Code That Can Grow and Thrive, Kyle Loudon, O'Reilly Media, Inc., 2010

- HTML5: Up and Running, Mark Pilgrim, O'Reilly Media, Inc., 2010

- JavaScript: The Definitive Guide, David Flanagan, O'Reilly Media, 2011

- **Remark:** slides and books are just the guideline to follow the course. Use Internet for complete references

Communication

› Synchronous will held at the Class

› Edunex https://edunex.itb.ac.id/ (Parent Class)

› Microsoft Teams (joint code **di4n6bi**)

  › Member: lecturers, assistants, students

  › Purpose :

  › announcement (esp. lecturer/assistant → students)

    › discussion relevant to the course

› Lecturers' email

  › yudis@itb.ac.id

  › koyimatu@itb.ac.id

  › yudasukmana@itb.ac.id

  › with subject: [IF3110] xxxx

› Remark: This means can be modified as the best suited for the lecturers

Any additional topic requests?

› ...