

IF184301 Object Oriented Programming (C)

Final Exam

Starting date: 16 December 2021
Deadline: 18 December 2021, 23:59 WIB. **Penalty: 0.15% of grade/minute of tardiness.**
Exam type: Open, Group (of one/two/three students).
Send to: MM Irfan Subakti <yifana@gmail.com>
CC to Jagad Wijaya Purnomo <jagadpurnomo26@gmail.com> with the subject:
IF184301_OOP(C)_FIN_StudentID1_Name1_StudentID2_Name2
File type & format: A **zip file** containing the *source codes* (the *project files*), *Report.PDF* & *Declaration(s).PDF*. One *declaration* file per student. So, if a group has 3 members, then there will be 3 *declaration* files.
Filename format: **IF184301_OOP(C)_FIN_StudentID1_Name1_StudentID2_Name2.ZIP**

Team Project

In this exam, based on everything that we have learnt, you have to build your GUI-socket-based client-server application.

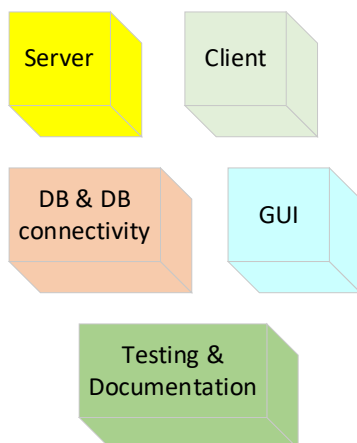
Examples of this application are:

- Game + chat
- “Social media”
- Collaboration app
- Interactive portal
- Any “startup” app
- Whatever you think it’s cool! 😊

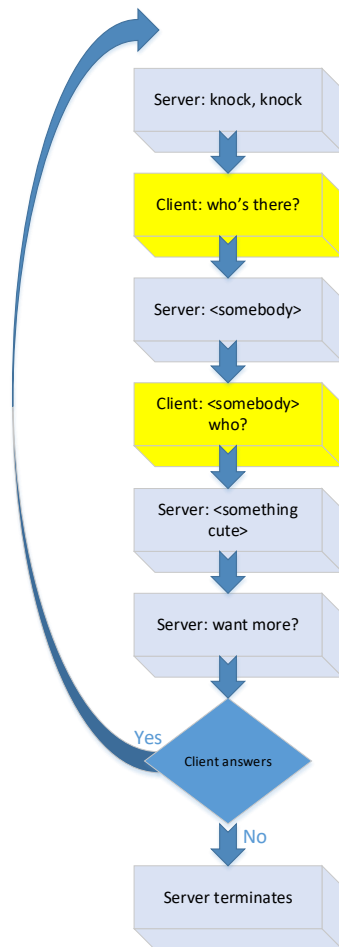
Feature

Pay attention to the following features

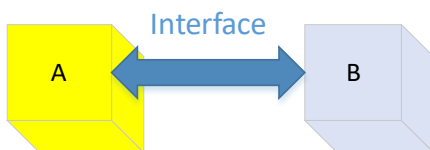
- Immediately decided what’s the topic/title of your project
- Distribution of work. In this case, your team members should come up with her/his specification as well as her/his job description



- Need to clearly describe the specification and document interface: generic term, it's not necessarily using Java interface
- All protocols and flow charts need to be clearly described. E.g., Knock-knock server-client communication protocol



- Think about test cases



- A design test case for B, since A use B's functions
- B design test case for A, since B use A's functions
- Clearly describe:
 - Design: Specification → Design → Implementation
 - Product documentation
 - User-level
 - Performance criteria
 - How to install the system (installation)
 - Troubleshooting
 - Develop & use test plans
 - E.g., stubs

- Multithreaded
- Distributed testing
- Need to take care carefully:
 - Server down → client should know this
 - Client down → server should know this
 - Exception handling
 - Connection *error* when a server *down*
 - Connection *error* when a client *down*

Grading

The grading of your works is based on the following.

- Design [20 points]
- Implementation [50 points]
- Analysis/evaluation [25 points]
- Conclusion [5 points]

Total: [100 points]

Declaration

To avoid plagiarism/cheating, every student needs to pledge and declare, then she/he must submit her/his **signed pledge and declaration** as in the following. Failing to do so will be resulted in getting a 0 (zero) grade. Attach the **scanned/photo** of your *declaration* in your report.

“By the name of Allah (God) Almighty, herewith I pledge and truly declare that I have solved final exam by myself, didn’t do any cheating by any means, didn’t do any plagiarism, and didn’t accept anybody’s help by any means. I am going to accept all of the consequences by any means if it has proven that I have been done any cheating and/or plagiarism.”

[Place, e.g., Surabaya], [date, e.g., 18 December 2021]

<Signed>

[Full name, e.g., Pujiati Sri Lestari]
[StudentID, e.g., 05112040000xxx]

Final task

Make a report of this project, namely `Report.PDF`, about what you have been done, the output, pseudocode, everything that has been described above, whatever you think it's important.

To maintain fairness for your awarded grade, state clearly in your report, the job descriptions and its percentage (distribution) of works, along with the contribution(s) for each member in your group. E.g., Kelana Bagus 55% [*state Kelana's contribution(s) here*], and Pujiati Sri Lestari 45% [*state Pujiati's contribution(s) here*]. Include this distribution and contribution's section in your `Report.PDF`.

Then `Report.PDF` needed to be compressed (zipped). Rename the `ZIP` file to `IF184301_OOP(C)_FIN_StudentID1_Name1_StudentID2_Name2.ZIP`. All of the involved files in your project (the *source codes* and everything), as well as all of your *declaration* files needed to be added to the `ZIP` file.

Have a nice day! Good luck, guys! 😊