

IF184401 Design & Analysis of Algorithms (IUP)

Quiz 1

Starting date: 04 March 2022
Deadline: ~~09 March 2022, 23:59 WIB~~. It's extended to 12 March 2022, 23:59 WIB. **Penalty: 0.15% of grade/minute of tardiness.**
Exam type: Open, Individual Project
Send to: MM Irfan Subakti <yifana@gmail.com>
CC to Dickson Alfersius Novian <dicksonan@gmail.com> & Adrian Santoso <mkadriansantoso@gmail.com> with the subject: IF184401_DAA(IUP)_Q1_StudentID_Name
File type and format: A full report of the title, problem description, problem abstraction, solution and source code; in PDF format
Filename format: IF184401_DAA(IUP)_Q1_StudentID_Name.PDF

Instruction

Please do these steps as in the following.

- Two problems that need to be solved are in the following.
 - 7704 Civil Engineering: <https://www.spoj.com/problems/CIVIL/>
 - 12746 Colorful Circle (EASY): https://www.spoj.com/problems/CRCLE_UI/
- For each problem above, please explain in detail the following sections.
 - The title of problem (2%)
 - Problem description (3%)
 - Problem abstraction (10%)
 - Solution (75%)
 - Details of the strategy of the algorithm: observation and theory references
 - Any relevant concept(s) used for solving the algorithm's design
 - Design of algorithm in the pseudocode representation
 - Source code for SPOJ (10%)
 - 7704 Civil Engineering: use the variations of integral and differential which should already be discussed from Calculus lectures.
 - 12746 Colorful Circle (EASY): use the recurrences relations which should already be discussed from Discrete Math lectures.
- If you don't have an account at SPOJ.com, please sign up on www.spoj.com. Make a proper account's name and location (*country*: Indonesia, *city*: Surabaya). Most importantly, please don't forget to put "Institut Teknologi Sepuluh Nopember" for the *institution*.
- Please also write in your report, your SPOJ account's **name & password**, as in the following.

SPOJ's account's name: <write_your_account_name_here>
SPOJ's account's password: <write_your_account_password_here>

5. Once you got a SPOJ's account, please solve these problems as in the following. Submit your solution's code to SPOJ and make sure it's **accepted by SPOJ** for each problem.
6. 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 quiz 1 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., 09 March 2022]

<Signed>

[Full name, e.g., Melati Sri Untari]

[StudentID, e.g., 05112040000xxx]

7. Have a wonderful day! Good luck! 😊