ICPC 2021 Regional

Jakarta Site

20 - 21 November 2021

Technical Briefing

hosted by

BINUS UNIVERSITY

Schedule

20 Nov

Technical Briefing

Practice Session

21 Nov

Contest

Online Competition

2021 ICPC Asia Jakarta Regional Contest is an invigilated online contest.

Please follow the COVID-19 regulations according to your country.

The host urges every team to adhere to sportsmanship and to comply with the competition rules in the best way possible.

Deviation from the requirements (unless permitted by the host) are subject to disqualification.

Workstation

Each team can only work with one workstation

- Only one display, keyboard, and mouse can be used
- Additional workstation is to be followed in the next section

Workstation

Approved software

- Browser
  - Latest version of Safari, Firefox, Microsoft Edge, or Google Chrome
- IDE and Text Editors
  - Code::Blocks, Eclipse, Textpad, Notepad++, Dev-C++, Sublime Text, Visual Studio Code, Netbeans IDE, vi, vim, emacs, TextEdit, Geany, IntelliJ IDEA, CLion, Visual Studio
- Compilers and Interpreters
  - gcc, g++, javac, python2, python3
- Debugger
  - gdb, DDD, valgrind, VisualVM, Visual Studio Debugger
- Calculator
- Spreadsheet software
  - Microsoft Excel, LibreOffice Calc, OpenOffice Calc, Numbers
- Application to open PDF files
- Latest version of Zoom client

Workstation

The installed software must not have major modifications (including IDE extensions) from the default installation.

- In particular, contestants must not use pre-recorded macros on their IDE or text editors.

Using unapproved software without prior permission by the host is a violation of the contest rules.

Hardware/network/electrical failures are the responsibility of the team and will not be grounds for extra time.

Secondary Workstation

Each team may use an additional workstation

- Only one display, keyboard, and mouse can be used
- Substitute for printed papers

Only can be used for navigating through DOMjudge

- View problem statements, scoreboard, etc.
- View "printed" files
- View Team Reference Document

Zoom

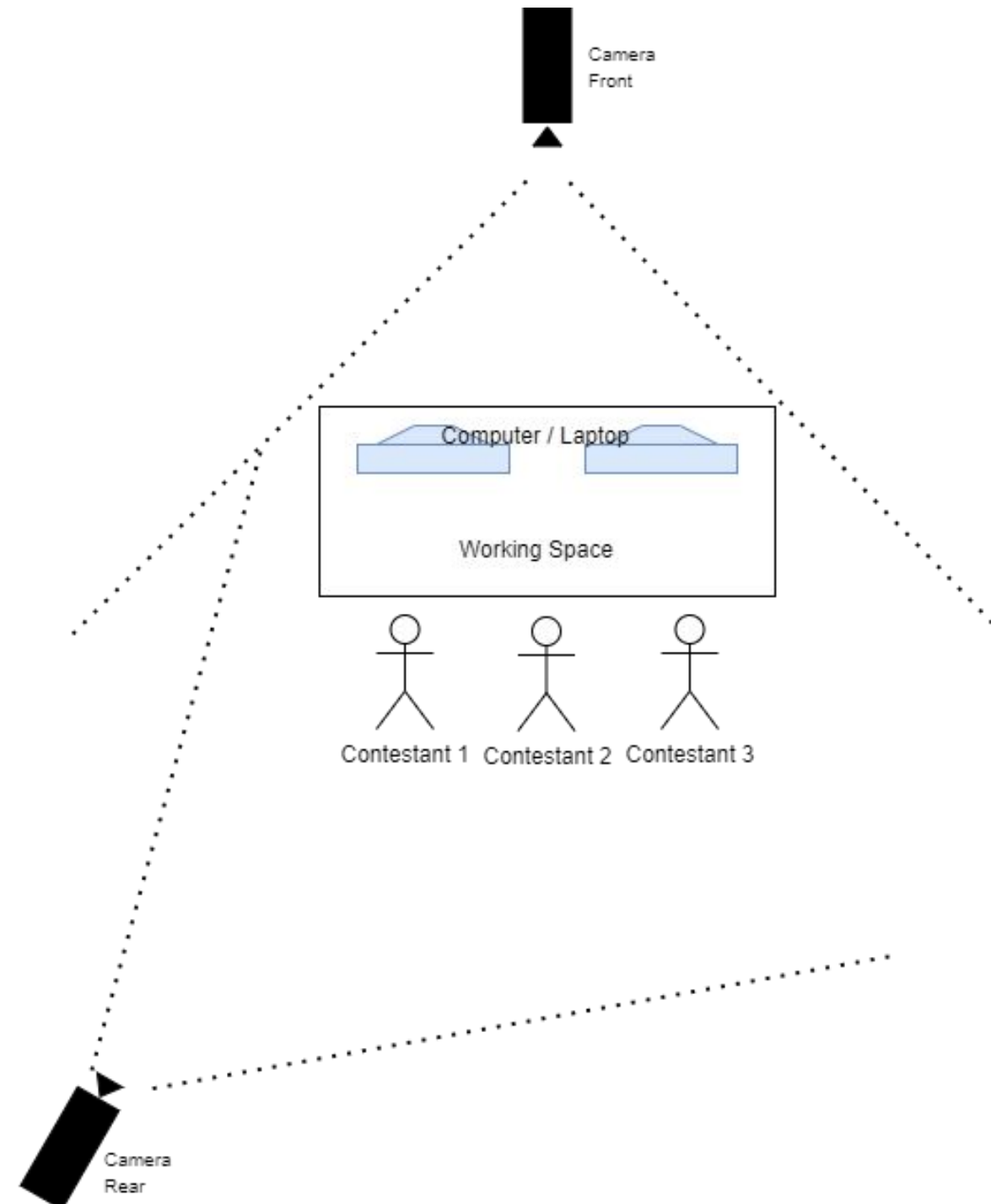Each team will be connected to one Zoom session, with only the team and their proctor.

- Each workstation's screen content must be streamed.
- Additionally, each team has to stream 2 camera feeds:
  - Front: Camera positioned in front of the contestants, which shows contestants' faces.
  - Rear & Room: Camera positioned on the back right or left side of the contestants which shows the team and its surrounding area.
- Contestants must not use alter the camera feed (including virtual backgrounds).

The session will be recorded

Zoom

Camera
Front

Computer / Laptop

Working Space

Contestant 1 Contestant 2 Contestant 3

Camera
Rear

Contest Platform

DOMjudge

an automated judge system

http://competition.binus.ac.id/contest/

Judge Machine

Hardware	Intel Cascade Lake CPU@3.0 GHz
Operating System	Ubuntu 20.04 LTS
Compiler (IDE)	**GCC 9.3.0** **Java 11.0.11**
Interpreter	**Python 3.8.5** **Python 2.7.18**

Judge's Responses

CORRECT, accepted solution.
- The corresponding problem is considered solved.

COMPILER-ERROR

MEMORY-LIMIT

TIMELIMIT

RUN-ERROR
- do not forget to `return 0` at the end of your `main` function (C/C++)
- missing or different return statement may result in RUN-ERROR

NO-OUTPUT

WRONG-ANSWER

Language

C	C++17

Java

Python 2	Python 3

We **DO NOT** guarantee all the problems can be solved within time-limit constraint with **Python** even though the same algorithm is used

Language

The compile/run options used for each of the languages are:

C	`-x c -Wall -static -pipe -DONLINE_JUDGE -DDOMJUDGE -lm`
C++17	`-x c++ -std=c++17 -Wall -O2 -static -pipe -DONLINE_JUDGE -DDOMJUDGE`
Java	`-XX:+UseSerialGC -Xss64m -DONLINE_JUDGE -DDOMJUDGE`
Python 2	`N/A`
Python 3	`N/A`

DOMJudge

DOMjudge · 🏠 Home · 📖 Problemset · 📄 Print · ☰ Scoreboard · → Jury · ☁ Submit · ⏻ Logout · 🏆 icpc21-test ▾ · 🕐 6d 1:55:03

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RANK	TEAM	SCORE		A	B	C	D	E	F	G	H	I	J	K	L	M	PA	PB	PC	PD
1	rapel :'(	17	26161	1299 1 try	1306 1 try	5685 1 try	1312 1 try	1316 1 try	1325 1 try	1336 1 try	1349 1 try	1364 1 try	1370 1 try	1376 1 try	1384 1 try	1391 1 try	1083 1 try	1084 1 try	1089 1 try	1092 1 try

Submissions

time	problem	lang	result
22:03	PD	CPP	COMPILER-ERROR
21:57	PD	CPP	CORRECT
21:57	PD	CPP	CORRECT
21:57	PD	CPP	TIMELIMIT
21:57	PD	CPP	RUN-ERROR
21:57	PD	CPP	TIMELIMIT
21:56	PC	PY3	RUN-ERROR
21:56	PB	PY3	NO-OUTPUT

Clarifications

time	from	to	subject	text
21:59	Jury	rapel :'(	problem PA	Yes
21:58	Jury	rapel :'(	General issue	No

Clarification Requests

time	from	to	subject	text
21:59	rapel :'(	Jury	problem PA	Can Emma do several task at once?
21:54	rapel :'(	Jury	General issue	Can we use 2nd computer to code?

request clarification

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Clarification Request ✕

Subject: Problem PA: PA - Non Classical Problem   21:59

From: rapel :'((t651)   To: Jury

> Can Emma do several task at once?

Subject: Problem PA: PA - Non Classical Problem   21:59

From: Jury   To: rapel :'((t651)

> Can Emma do several task at once?

Yes

↩ reply to this clarification   Close

RANK	TEAM	SCORE	A
1	rapel :'(	17 26161	1299 1 try

PA	PB	PC	PD
1083 1 try	1084 1 try	1089 1 try	1092 1 try

time	problem		
22:03	PD		
21:57	PD		
21:57	PD		
21:57	PD		
21:57	**PD**		
21:57	**PD**		
21:57	**PD**		
21:56	PC	PY3	RUN-ERROR
21:56	PB	PY3	NO-OUTPUT

...bject	text
...blem PA	Yes
...neral issue	No

...uests

...l Emma do several task at once?

...we use 2nd computer to code?

request clarification

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Documentation

The URL for C++, Java, Python 2, and Python 3 documentation will be provided at the start of the contest.

Problem Set

There are **13 problems** (A to M).

| A | B | C | D | E | F | G | H | I | J | K | L | M |

Time-Limit and Memory-Limit for each problem is available by clicking the "Problemset" tab in DOMjudge.

Time-Limit and Memory-Limit

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Contest problems

● Problem A
A - Suspicious Event
Limits: 1 second / 256 MB
📄 problem text

Samples

input #1	output #1
input #2	output #2
input #3	output #3
input #4	output #4

● Problem B
B - Wooden Fence
Limits: 2 seconds / 256 MB
📄 problem text

Samples

input #1	output #1
input #2	output #2
input #3	output #3
zip with all samples

● Problem C
C - Card Game
Limits: 2 seconds / 256 MB
📄 problem text

Samples

input #1	output #1
input #2	output #2
input #3	output #3
zip with all samples

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Contest Site

Each team may have the following items on the contest site

- Blank papers or graph papers
- Stationeries (pen, pencils, rulers, etc.)
- Hard-copy dictionary
- Snack, food, drink, or medicine
- Mascots, soft toys

Please turn off all communications device.

Leaving the contest site requires a prior permission from the proctor/committee

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Contest Preparation

Teams must be ready in their setup at least **20 minutes** before the start of the contest.

- Including joining the Zoom session
- Practice session starts at 13:00 (GMT+7) today
- Contest starts at 09:00 (GMT+7) tomorrow

The DOMjudge credentials will be provided in the Zoom session by the proctor **15 minutes** before the start of the contest

- Upon the receiving the credentials, contestants must log in to DOMjudge using the provided credentials, and notify the proctors for any problems

Contest Preparation

Upon login to DOMjudge, the countdown timer to the start of the contest will be displayed on the top-right corner.

- Contestants must not have any other applications open and must not interact with their workstation anymore

When the timer reaches 0

- The contest begins without further instruction
- Contestants can start working

Working Directory

Contestants must prepare an empty directory before the start of the contest, and use only this directory for the contest.

Contestants must not use any materials written before the start of the contest.

Contestants must not access the internet other than DOMjudge, and the provided Zoom and language documentation.

Each team may have a Team Reference Document

- The document may contain up to 25 pages of reference materials, letter or A4 size, with pages numbered in the upper right-hand corner and your university name and team name printed in the upper left-hand corner.
- The softcopy of the Team Reference Document must be submitted before the start of the practice session.
- Approved Team Reference Document will be available for use during the contest in DOMjudge.
- The document will be located in "Print Job" Section.

Team Reference Document has been converted so that the texts are not copyable

Printing

Contestants may send any text files to DOMjudge for "printing" by clicking the "Print" tab in DOMjudge
- Upon sending the file, the contestant will receive a token (randomly-generated 8 uppercase characters) that only shown for 10 seconds for that file.
- All printed files by the team are available in the "Home" tab.

Approved Team Reference Document will be available as a printed file at the start of the contest.
- The token of this file will be given to the contestants together with the DOMjudge credential.

Printing

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Print source

Source file: (Filename should have no spaces)

No file selected	Browse

Language:

Select a language ⇕

Print code

Printing

DOMjudge   🏠 Home   📖 Problemset   📄 Print   ☰ Scoreboard   → Jury   ☁ Submit   ⬦ Logout   🏆 icpc21-test ▾   🕐 6d 1:30:01

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Print source

File is successfully submitted. You have **10 seconds** to copy the token below.

UXPGFKXE

Close

Printing

DOMjudge   🏠 Home   📖 Problemset   📄 Print   ☰ Scoreboard   → Jury   ☁ Submit   ➡ Logout   🏆 icpc21-test ▾   🕐 6d 1:29:21

16:26	PB	CPP	WRONG-ANSWER
16:25	PB	CPP	CORRECT
16:25	PB	CPP	CORRECT
16:24	PA	CPP	WRONG-ANSWER
16:24	PA	CPP	WRONG-ANSWER
16:24	PA	CPP	CORRECT
16:24	PA	CPP	CORRECT
16:24	PA	CPP	CORRECT

Print Job

time	filename	action
22:29	A.cpp	view file
22:29	template.cpp	view file
22:25	solution.cpp	view file
22:16	rafael_wa.cpp	view file
22:04	TRD-KTH-D.pdf	view file

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Printing

Printing

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View source

This is a View Source for team rapeladmin

Font size: 12 ▾

```
1   //pragma
2   //#pragma GCC optimize("Ofast")
3   //#pragma GCC optimize("unroll-loops")
4
5   #include <bits/stdc++.h>
6
7   #define YOU using
8   #define DONT namespace
9   #define SAY std
10
11  YOU DONT SAY;
12
13  typedef long long ll;
14  typedef unsigned long long ull;
15  typedef pair<int,int> pii;
16  typedef pair<ll,ll> pll;
17  typedef pair<ll,int> pli;
18  typedef pair<int,ll> pil;
19  typedef vector<int> vi;
20  typedef vector<pii> vii;
21  typedef vector<pll> vll;
22
```

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Balloons

Unfortunately, there is no balloon this year.

Clarification

Team may submit clarification requests to the judges via DOMJudge.
- ✓ It's better to submit only questions related to the problem set.
- ✓ But, if you have any doubt related to the contest (workstation, proctoring rule), you also can ask it via clarification.
- ✓ Question related to the other logistics can be addressed directly to the committee/proctor.

If the judges agree that an ambiguity or error exists in the problem set, a clarification will be issued to all teams.

Scoring

Teams are ranked according to:

i. Most number of problems solved,

if (i) ties, then:

ii. Least TOTAL TIME,

if (i) and (ii) tie, then:

iii. Earliest time of submittal of the last accepted problem.

TOTAL TIME is the sum of the time consumed for each solved problem.

The time consumed for a solved problem is:
- the time elapsed from the beginning of the contest to the submittal of the first accepted solution.
- 20 penalty minutes for every previously rejected solution (except COMPILER-ERROR) for that problem.

There is no time consumed for a problem that is not solved.

Scoreboard

Scoreboard is available in DOMjudge by clicking the "Scoreboard" tab.
- The secondary workstation is also allowed to view the scoreboard.

Scoreboard <u>will not be updated in the last 30 mins of the practice session</u>
- All teams still get responses from judges.

Scoreboard <u>will not be updated in the last hour of the contest</u>
- All teams still get responses from judges.

Public scoreboard
http://competition.binus.ac.id/contest/

Fair Play

You might be disqualified for any activity that jeopardised the contest, including (but not limited to):

- ❖ hacking attempt,
- ❖ cheating,
- ❖ distracting behaviours,
- ❖ etc.

Questions?

Good Luck

and

Have Fun!

May the CORRECTs be with you