How to Use the System

When Getting in Trouble with the System

Raise your hand to call a staff member and tell them about your trouble. Here are a few phrases that may be useful in typical situations:

- "We printed _____ (source code, debug output, ...) about _____ minutes ago but have not received the printout yet."
- "_____ (browser, editor, ...) does not start."
- "Our _____ (computer, keyboard, mouse, ...) stopped working."

Contest staff will help you resolve the issue.

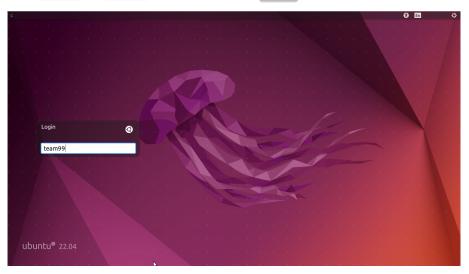
Do not use the Clarification in DOMjudge for system troubles. Use the Clarification only for questions about contest problems.

Logging In to Your Computer

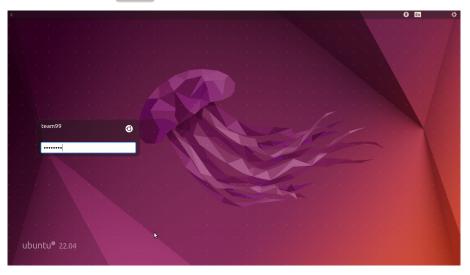
Your team ID and password are provided in a document in an envelope.

Note: You will use *the same team ID* but *different passwords* in the practice session (Nov. 25) and the main contest (Nov. 26). You will receive a document of login information each day.

1. Type your team ID (team01 or team02 or ...) and press an Enter key.



2. Type your password and press an Enter key.



3. You should see a screen like this.



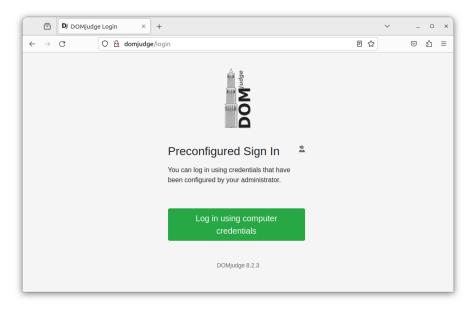
Logging In to the Contest System

We use DOMjudge 8.2.3 for the contest system this year.

1. Double-click the DOMjudge shortcut on the desktop. It will open a new Firefox tab.



2. Click the [Log in using computer credentials] button. It will automatically log in as your team.



3. Once you get logged in, you will see a page like this.

Dj Sample Team - DOMjudg ×	+		✓ _ □ X
\leftarrow \rightarrow C O $\textcircled{2}$ domjudge	☆ ♡ ☆ ≡		
DOMjudge 🔒 Home 💷 Problem			Submit
	RANK TEAM	SCORE A B C	
	1 Sample Team	SCORE A B C 0 0	_
Submissions	S		Clarifications
No submissions		No clarifications.	
		Cla No clarification reques	rification Requests
		request clarification	st.

4. You can check the time to end at the upper-right corner.

Dj Sample Team - DOMjudg ×	+		× – D	×
\leftarrow \rightarrow C O $\$ domjudge/	/team		☆ ♡ 원	≡
DOMjudge 🏫 Home 💵 Problems		•	Submit C+ Logout (4:58:4	
	RANK TEAM SC	DRE A B C		
	1 Sample Team 0	0		
Submissions	5	Clari	fications	
No submissions		No clarifications.		
		Clarificat	ion Requests	
		No clarification request.		
		request clarification		

Submitting Your Code

1. Click the [Submit] button near the upper-right corner. It will open the Submit dialog.

Dj Sample Team - DOMjudge ×	+								~		-		×
\leftarrow \rightarrow C \bigcirc $\textcircled{2}$ domjudge	/team								☆		⊘	ර	=
DOMjudge 🛧 Home 🖩 Problem	iset ½	∃ Scoreboard						Submit	€ L•	gout	() 4	:58:4	47
	RANK	ТЕАМ	sc	ORE	A	B	C						
	1	Sample Team	0	0				_					
								_					
Submissions	5							Clarificatio	ons				
No submissions				Ν	o clarii	ications	5.						
							Cla	rification Re	equests				
				N	o clarii	ication	reque	st.					
					request	clarifica	tion						
													_

2. Choose your source files, problem, and language, then click the [Submit] button in the dialog.

🗇 Dj sa	ample Team - DOMjudgi × +	~	- • ×
$\leftarrow \rightarrow C$	O ∆ domjudge/team	۲	ල
DOMjudge	Submit) (×	0 4:58:04
	Source files		
	hello.py	Browse	
	Problem		
	A - Hello World	\$	
No submis	Language		
	Python 3	\$	
	Cancel	🔁 Submit	

Your submission results show up in the Submission section. You can see the details of each submission by clicking the corresponding row.

The Submission section also shows the submissions from your teammates. You can download the submitted code as a zip file there.

You can submit multiple source files: hold a Ctrl key down when choosing files.

Filenames may contain only alphabets (A-Z, a-z), digits (0-9), and a few symbols (+._-). They must start with an alphabet or a digit. In other words, they may not start with a symbol.

Downloading Sample Input/Output

1. Click [Problemset] in the top navigation. It will open the Contest problems page.

Dj Sample Team - DOMjudg ×	+	✓ _ □ X
\leftarrow \rightarrow C O $\&$ domjudge	/team	ය 🛛 🖓 ≡
DOMjudge 🔒 Home 💷 Problem	set }≘ Scoreboard	Submit F+ Logout 4:58:47
	RANK TEAM SCORE A B C	
	1 Sample Team 0 0	_
Submission	5	Clarifications
No submissions	No clarifications.	arification Requests
	No clarification reque	· · · · · · · · · · · · · · · · · · ·
	request clarification	

2. Click the button of what you want to download.

Dj Contest problems demo -× +		~ _ D X					
$\leftarrow \rightarrow C$ \bigcirc $\textcircled{2}$ domjudge/team	→ C O A domjudge/team/problems						
DOMjudge 🔺 Home 🛄 Problemset		Submit C+ Logout © 4:57:50					
Den	no contest probl	ems					
Hello World Limits: 5 seconds / 2 GB	B Float special compare test Limits: 5 seconds / 2 GB	C Boolean switch search Limits: 5 seconds / 2 GB					
🛱 text 🛛 🛱 samples	🖆 text 🛛 🛱 samples	🛱 text 🛛 🚯 Submit					

Communicating with the Judge

On the right side is the only communication channel between you and the judge.

The Clarifications section shows messages from the judge. When the judge makes any announcements, they will show up in this section.

Dj Sample Team - DOMjudge×	+	✓ _ □ ×
\leftarrow \rightarrow C O $\&$ domjudge	•/team	ය ව =
DOMjudge 🔒 Home 💵 Problem	nset ≟≣ Scoreboard	Submit 🕞 Logout 🔮 4:58:47
	RANK TEAM SCORE A B C	
	1 Sample Team 0 0	-
Submissions	s	Clarifications
No submissions	No clarifications.	
		arification Requests
	No clarification reque	est.
	request clarification	

To ask a question to the judge:

- 1. Click the [request clarification] button. It will open the Send clarification request dialog.
- 2. Choose the Subject, write your question in the Message field, and click the [Send] button.

Your question will show up in the Clarification Requests section until it is answered. After you receive an answer, it will appear in the Clarifications section.

Be sure to write your question in English when you talk to the judge! Also, remember the judge **does not** answer system-related questions, such as a usage of DOMjudge or a trouble with your computer. If you have such questions, raise your hand and talk to the contest staff.

Printing Your Code and Debug Output

To print a text file, such as your code and debug output, open a terminal and run:

printfile \$FILENAME

This command outputs " Print request was sent. " on success.

Your printouts will be delivered to your seat by staff. **Do not** attempt to pick them up by yourself; the printers are located in the staff area, which you cannot enter.

Do not use other methods, especially printing features in applications.

Only plain text is supported. **Do not** print anything else (e.g. PDF, HTML).

We do not have many printers. **Do not** attempt to print many pages. Printing the whole content of an STL document or a Java API document is a bad idea, for example.

Viewing the Scoreboard

Click [Scoreboard] in the top navigation to show the current standings. Note the scoreboard will stop being updated (be "frozen") 60 minutes before the contest ends.

Dj Sample Team - DOMjudge X	+		~	_ 0 ×
\leftarrow \rightarrow C O $\&$ domjudge,	/team		☆	ල එ ≡
DOMjudge 🏫 Home 🔳 Problem	nset 👌 Scoreboard		쥼 Submit 🚺 🕻 + Logout	() 4:58:47
-	RANK TEAM SC	ORE A B C		
	1 Sample Team 0	0		
Submissions	S		Clarifications	
No submissions		No clarifications.		
		Clar No clarification request	fication Requests	
		request clarification	•	

Writing and Compiling Your Code

The system is set up with a number of IDEs and editors. Use your favorite. There is a shortcut on the desktop for each of them.

You can test your programs with the following commands. Just pass your source file(s) or Java class file(s) as the arguments. See <u>Appendix A</u> for more detailed instructions.

- C: compilegcc (then run ./a.out)
- C++: compileg++ (then run ./a.out)
- Java: compilejava / runjava
- Python 3: compilepython3 / runpython3
- Kotlin: compilekotlin / runkotlin

Customizing the System

We strongly discourage you from changing system settings of the computer. If you choose to do so, you are responsible for all troubles it could cause, i.e. you will be doing it at your own risk.

Also be advised the system will be reset to the original state between the practice and the main contest. All files and customizations made during the practice will be lost.

Taking Out Your Files after the Contest

If you would like to take your files out of the computer after the contest, please put them in:

~/takeout

We will pick up the files there and send them to you by email. We will give you some time to copy the files after the contest is over, so that you do not have to care about it during the contest.

See Appendix B if you need step-by-step instructions.

Logging Out from the Contest System

Click the [Logout] button at the upper-right corner of the page.

+		~	×
/team		☆	ල
aset ≟Ξ Scoreboard		📤 Submit 🕞 Logout	4:58:47
RANK TEAM SC	ORE A B C		
1 Sample Team 0	0		
5		Clarifications	
	No clarifications.		
	Cla	rification Requests	
	No clarification reques	t.	
	request clarification		
	/team Iset }Ξ Scoreboard RANK TEAM SC	/team Iset := Scoreboard RANK TEAM SCORE A B C 1 Sample Team 0 0 S No clarifications. Clai No clarification reques	/team

Logging Out from Your Computer

- 1. Click a power-icon button at the upper-right corner of the screen.
- 2. Click your team name to open the submenu.

		Φ	J
(1)	Balanced	>	
Ø	Settings		
	Lock		
U	Power Off / Log Out	>	

3. Select [Log Out] from the shown menu.

			Φ
ſ	Φ	Balanced	>
	Ô	Settings	
		Lock	
	U	Power Off / Log Out	~
		Restart	
		Power Off	
		Log Out	
	-		

Appendix A: How to Compile and Run Your Code

C/C++

We assume that you save your source file as A.c or A.cpp and an input file as sample-A.1.in in your home folder (teamXX). Do not create them on the desktop; we do not expect them to be saved there.

1. Double-click the Terminal shortcut on the desktop.



2. Type as follows in the Terminal window (- denotes an Enter key), depending on whether you are using C or C++. It compiles your code and generates a binary named a.out.

• C: compilegcc A.c.

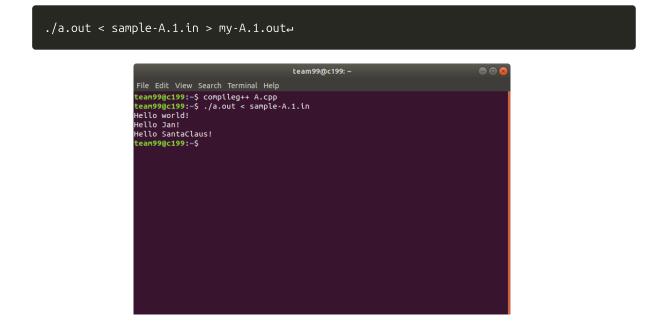
• C++:

compileg++ A.cpp↩

3. Type as follows to run your program:

./a.out < sample-A.1.in،

If you would like to save the output into a file named my-A.1.out :



Java

We assume that you save your source file as A.java and an input file as sample-A.1.in in your home folder (teamXX). Do not create them on the desktop; we do not expect them to be saved there.

1. Double-click the Terminal shortcut on the desktop.



2. Type as follows in the Terminal window (- denotes an Enter key). It compiles your code into Java class files (e.g. A.class).

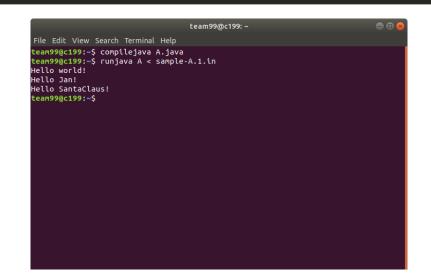
compilejava A.java⊷

3. Type as follows to run your program:

runjava A < sample-A.1.in↔

If you would like to save the output into a file named my-A.1.out :

runjava A < sample-A.1.in > my-A.1.out↩



Python

We assume that you save your source file as A.py and an input file as sample-A.1.in in your home folder (teamXX). Do not create them on the desktop; we do not expect them to be saved there.

1. Double-click the Terminal shortcut on the desktop.



2. Type as follows in the Terminal window to run your program (- denotes an Enter key):

runpython3	А.ру	<	sample-A.1.in↩
------------	------	---	----------------

If you would like to save the output into a file named my-A.1.out :

runpython3 A.py	<	sample-A.1.in	>	my-A.1.out↩
-----------------	---	---------------	---	-------------

team99@c199: ~	
File Edit View Search Terminal Help	
File Edit View Search Terminal Help tean99@c199:~\$ runpython3 A.py < sample-A.1.in Hello world! Hello Jan! Hello SantaClaus! team99@c199:~\$	

Kotlin

We assume that you save your source file as A.kt and an input file as sample-A.1.in in your home folder (teamXX). Do not create them on the desktop; we do not expect them to be saved there.

1. Double-click the Terminal shortcut on the desktop.



2. Type as follows in the Terminal window (- denotes an Enter key). It compiles your code into Java class files (e.g. AKt.class).

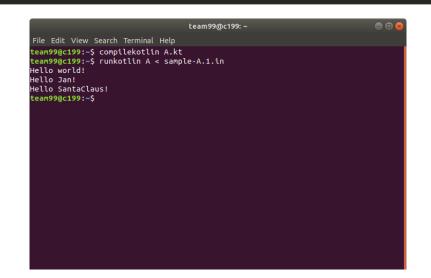
compilekotlin A.ktu

3. Type as follows to run your program:

runkotlin A < sample-A.1.in

If you would like to save the output into a file named my-A.1.out :

runkotlin A < sample-A.1.in > my-A.1.out

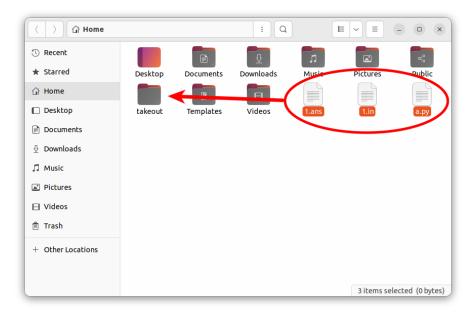


Appendix B: How to Move Your Files to Take Out

1. Click [Files] in the launcher (on the left side of the screen) to open your home folder.



- 2. Then, select your files to copy. You can use Shift and Ctrl keys as you do on Windows/Mac. \star1
- 3. Drag and drop them into the takeout folder.



Note: We will give you some time to copy the files after the contest is over, so that you do not have to care about it during the contest.

^{1.} For Mac users, Ctrl behaves like Command here.

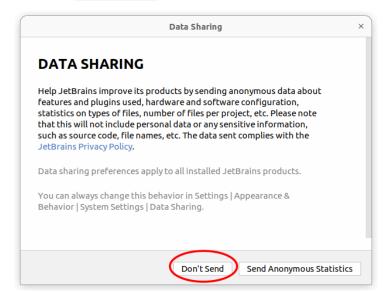
Appendix C: How to activate CLion

To use CLion IDE, you need to activate it. Follow the steps below. Note that you have to do this activation twice, in the practice session and in the main contest, because your system is reset before the main contest.

1. When you run CLion for the first time, you will see the CLion User Agreement dialog. Read the content carefully. Once you are done, check [I confirm ...] and click [Continue].

CLion User Agreement	×
JETBRAINS USER AGREEMENT	
Version 1.4, effective as of September 22, 2021	
IMPORTANT! READ CAREFULLY:	
THIS IS A LEGAL AGREEMENT. BY CLICKING ON THE "I AGREE" (OR SIMILAR) BUTTON THAT IS PRESENTED TO YOU AT THE TIME OF YOUR FIRST USE OF THE JETBRAINS SOFTWARE, SUPPORT, OR PRODUCTS, YOU BECOME A PARTY TO THIS AGREEMENT, YOU DECLARE YOU HAVE THE LEGAL CAPACITY TO ENTER INTO SUCH AGREEMENT, AND YOU CONSENT TO BE BOUND BY ALL THE TERMS AND CONDITIONS SET FORTH BELOW.	
1. PARTIES	
1.1. "JetBrains" or "we" means JetBrains s.r.o., having its principal place	
I confirm that I have read and accept the terms of this User Agreement Exit Conti	hue

2. On the Data Sharing dialog, click [Don't Send].*2



^{2.} In our use case, both buttons work in the same way. It is okay to choose [Send anonymous statistics], but the statistics will not be sent to JetBrains. Remember that your computer can access only to DOMjudge, nowhere else on the internet.

3. On the Licenses dialog, choose [Activation code].

·		Licenses	×
	CLion Activate	• Activate CLion O Start trial	
52	Plugins Code With Me Activate to enable	Get license from: • JetBrains Account Activation code License server Log In to JetBrains Account Register	
			Exit

4. On the desktop, find a file named clion-activation-code.txt. Double click to open it.



5. Copy-and-paste the file content into the CLion's dialog. Then click [Activate].

	Licenses	×
CLion Activate	Activate CLion	
Plugins Code With Me Activate to enable	Get license from:	
Log in	Activate	
Proxy settings		Exit

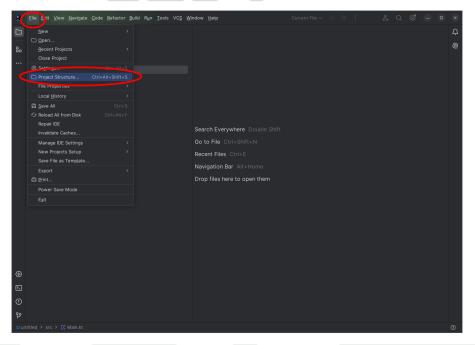
6. Now you should see "Licensed to International Collegiate Programming Contest" in the dialog. Click [Continue] to start using CLion.

	Licenses	×
Cion Active until February 24,2024 Plugins Code With Me Active until February 24,2024	Licensed to International Collegiate Programming Contest Subscription is active until February 24, 2024. Activate New License Remove License	
Proxy settings	Continue	

Appendix D: How to use Kotlin in IntelliJ IDEA

To use Kotlin's language features in IntelliJ IDEA (such as compiling, autocomplete, debugging, etc), you need to follow the steps below.

- 1. Open IntelliJ IDEA from the desktop icon, and create a new Kotlin project.
- 2. From the top right "Main menu" (hamburger menu), click the [Project Structure] option. You can alternatively open it by pressing Ctrl, Shift, Alt, and S.



3. Open Modules pane. From Dependencies tab, click [+] icon and click [1. JARs or Directories...].

		Project Structure	×
← → Pioject Settings Project Modules	+ — 🗊	Name: unitiled	
Librarios		Module SDK: Co Project CC Edit	
Facets Artifacts			Scope
Platform Settings		1 JARs or Directories	Scope
SDKs Global Libraries		3 Module Dependency	
Problems		M KotlinJavaRuntime	Compile 🗸
		Dependencies storage format: IntelliJ IDEA (.iml)	
?		ОК	Cancel Apply

4. Add /usr/local/lib to the dependencies, and click $\cite{OK}\c$

	Attach Files or Directories	×
Select files or directories in which library	classes, sources, documentation or native libraries are lo	cated
<u>ଜ ⊑ ା</u> ଜ ସ ସ ର		Hide path
/usr/local/lib		~
E libx32		
V Docal		
> 🗅 bin		
> 🗅 etc		
> 🗀 games		
> 🗀 include		
> 🗅 lib		
> 🗳 man		
> 🖿 py3-venv		
> 🗋 sbin		
> 🗈 share		
> 🗅 src		L L
?	Drag and drop a file into the space above to quickly locate it	OK Cancel