

# BlackBox (TechWeek 2021)

## What is it?

BlackBox is an esolang programming challenge. You will be given a strange programming language and some problems to solve in that language.

However, the competition is not supposed to be a programming contest. You won't feel like you are writing code. Instead, you will feel like you are solving a logical puzzle. So you can help your team win even if you have never done programming before.

## How will it be organised?

Esolang	<a href="http://bit.ly/2L5BA9M">http://bit.ly/2L5BA9M</a>
Problems	<a href="http://bit.ly/2XbxhMK">http://bit.ly/2XbxhMK</a>
Submission Form	<a href="https://forms.gle/pxer9KxrjnTTKCJs8">https://forms.gle/pxer9KxrjnTTKCJs8</a> The submission deadline is 6:15 PM IST on January 5, 2021.
Scoresheet	Check back at 12:00 PM IST on January 6, 2021

We will update the table above with the corresponding links at the times specified. You are required to check this document at those times to get those links.

We will give you a link to the documentation of the esolang. You should read it and try to understand how the esolang works. Some examples will be present in the documentation to help you better understand the language. You will also be given access to a compiler (which may be an online compiler or a downloadable executable).

We will also give you a document containing all the problems. The problems will NOT be sorted in the order of difficulty. You are advised to read all of them.

Finally, we will give you the link for a Google form. You are supposed to upload a ZIP file of all your solutions in that Google form. Also, note that you are supposed to fill the form only once. If we receive multiple submissions from your team, we will choose the one which leads to a lower score. You are supposed to submit the form at 6:00 PM IST. The strict deadline for submitting the form is 6:15 PM IST on January 5, 2021. Any submissions made after that will not be accepted.

# Solving the problems

Since we will be providing you with a compiler, and the problems will be really simple, you will know if your solution is correct or not. Therefore, we expect that all the code that you submit must be correct. There will be no partial marks for an incorrect solution. Further, you are supposed to submit a solution only if you know that the solution is correct. Any bogus submissions that are obviously incorrect will entail a penalty.

You are supposed to write the code for each problem in a different file. You will then put all the solutions in a ZIP file and upload that ZIP file to the google form.

All the files in your ZIP archive must be .txt files. The name of the file should be `X.txt` if it contains the solution of problem number X.

The name of your ZIP file should be `YOUR\_TEAM\_NAME.zip` (replace YOUR\_TEAM\_NAME with the name of your team)

## Example

Suppose your team's name is LoLSedLyf, and the contest has 2 problems:

1. Write a program to print "MEOW"
2. Write a program to print "BHOW"

Now suppose that the code to solve problem 1 is:

```
THIS_CODE_PRINTS_MEOW
```

And the code to solve problem 2 is:

```
THIS_CODE_PRINTS_BHOW
```

Then you should create two files:

File Name	1.txt
File Contents	THIS_CODE_PRINTS_MEOW

File Name	2.txt
File Contents	THIS_CODE_PRINTS_BHOW

Then you should put these 2 files in a ZIP file named LoLSedLyf.zip and then submit this zip file to the google form. If your team name contains some special characters that are not allowed in the file name, then contact us (details are specified below).

Please ensure that the names of your ZIP file and the individual solution files are exactly as specified as above, otherwise you will not receive any points for your submissions.

## Scoring

We will follow a dynamic scoring system. In plain terms, it means that for any problem, the higher the number of teams that solve it, the lesser its score. The scores will be calculated according to the following table:

Number of teams that solve the problem	Score of the problem
1	100
2-3	90
4-5	80
6-10	70
11-20	60
21-30	50
31-40	40
41-50	30
51-200	25

The total score of your team will be the sum of scores of all the problems that you solve.

So for example, if 4 teams solve Problem 1, each team will get 80 points for that problem.

## Plagiarism Policy

- You are allowed to use any already existing resources on the internet.
- You are NOT allowed to ask help from others on the internet. This means that you are not allowed to post the questions on any internet forum. Your team will be disqualified if we find any violations of this rule.
- You are NOT allowed to ask help from other teams or share your code with them. If a member of another team asks you for help, do inform us about it. We will give bonus points to the informant team, and we will subtract those points from the offending team's score.

- You are NOT allowed to seek help from your seniors (not even the secretaries of the Programming Club). If you have any queries, you must contact us ONLY at the points of contact specified below. Your team will be disqualified if we find any violations of this rule.

## Points of Contact

If you have any queries (before, during, or after the contest), you are supposed to contact us through any of the following ways:

- Post your query on the #y20 channel on our Slack Workspace.
- Message @dryairship on our Slack Workspace.
- Message Deepankur Kansal, Nirmal Suthar, Nilay Majorwar or Priydarshi Singh on Messenger.

Do not try to contact us through any other method, or you may not receive a response.

Link to the #y20 channel on our Slack workspace:

<https://pclubiitk.slack.com/archives/C01GDE8VCQG>