eLab Student Manual

Pre-process:

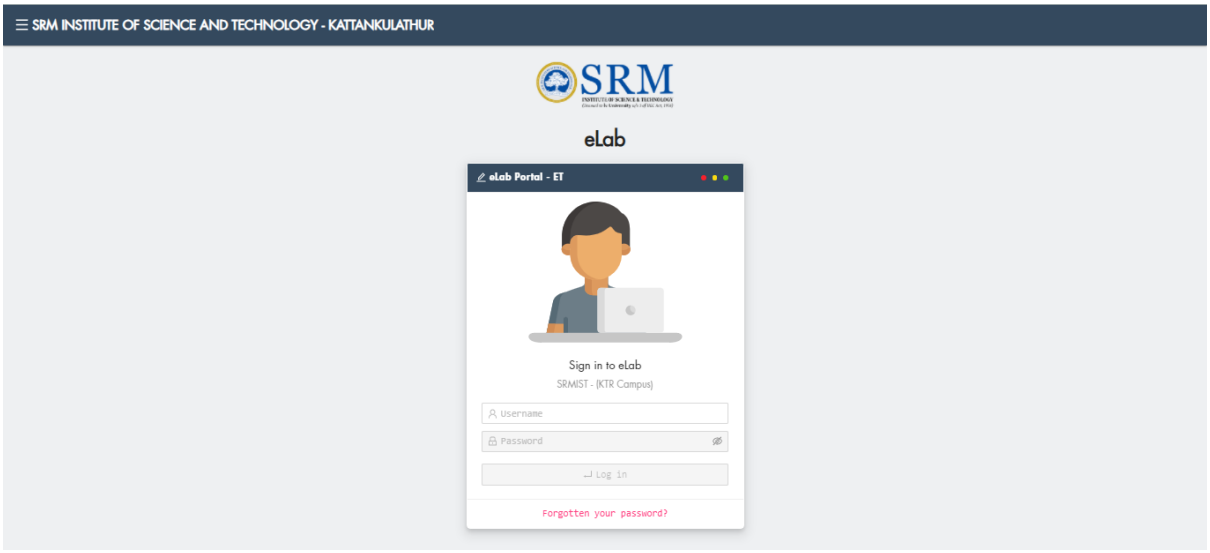
You have to share your **Aadhar ID** with Faculty In-charge for student's login registration

Step 1: Login Page

Go to the URL given by your Faculty Member, you will be directed to the eLab login page of Your Campus similar to the one shown below:

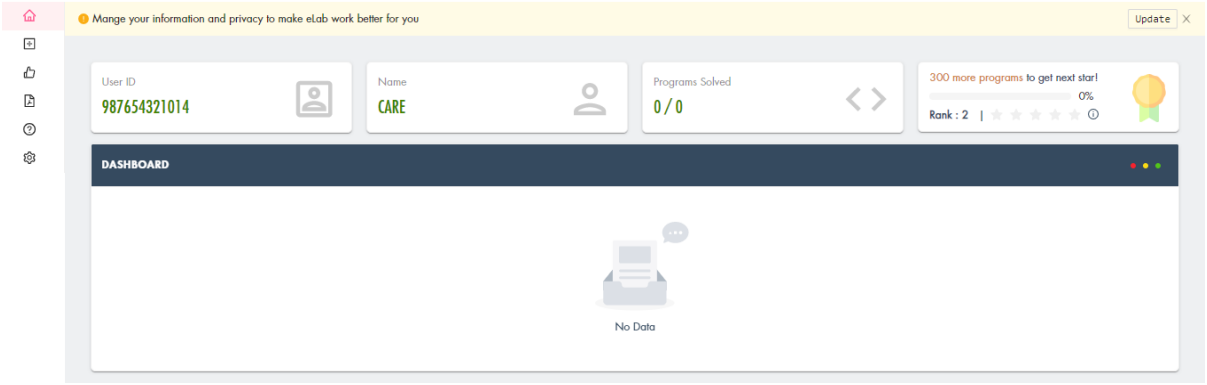
Note:

- Your Aadhar ID will be a USERNAME and your default PASSWORD.



Step 2: Student Portal

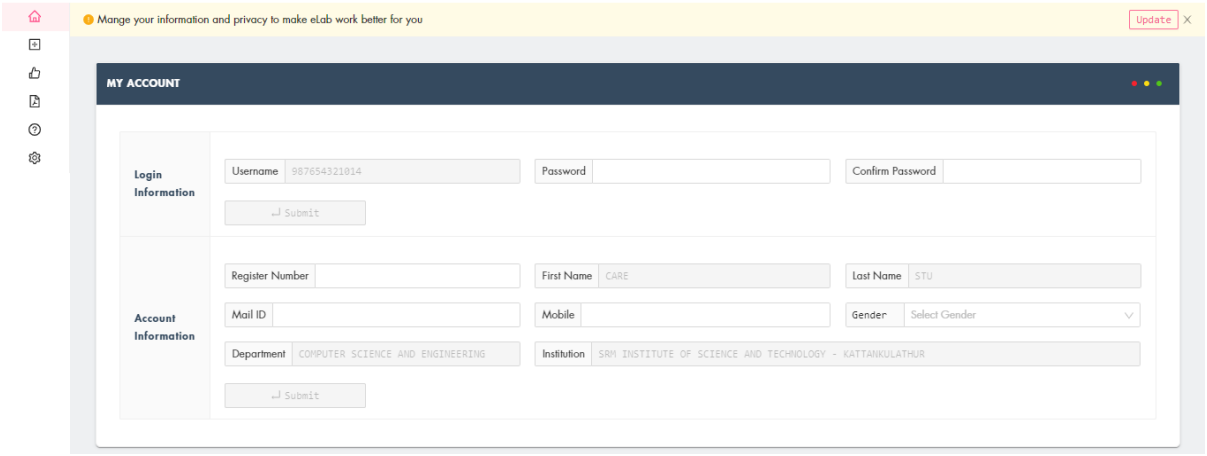
Once logged into the student portal, you will get the page like below:



Now bu clicking **Update** button in the Notification You SHOULD UPDATE

- Your 15 digit Register number in the following format "RAXXXXXXXXXXXXX"

- Your Mail ID, Mobile Number, and Gender in Account Information Option without fail.



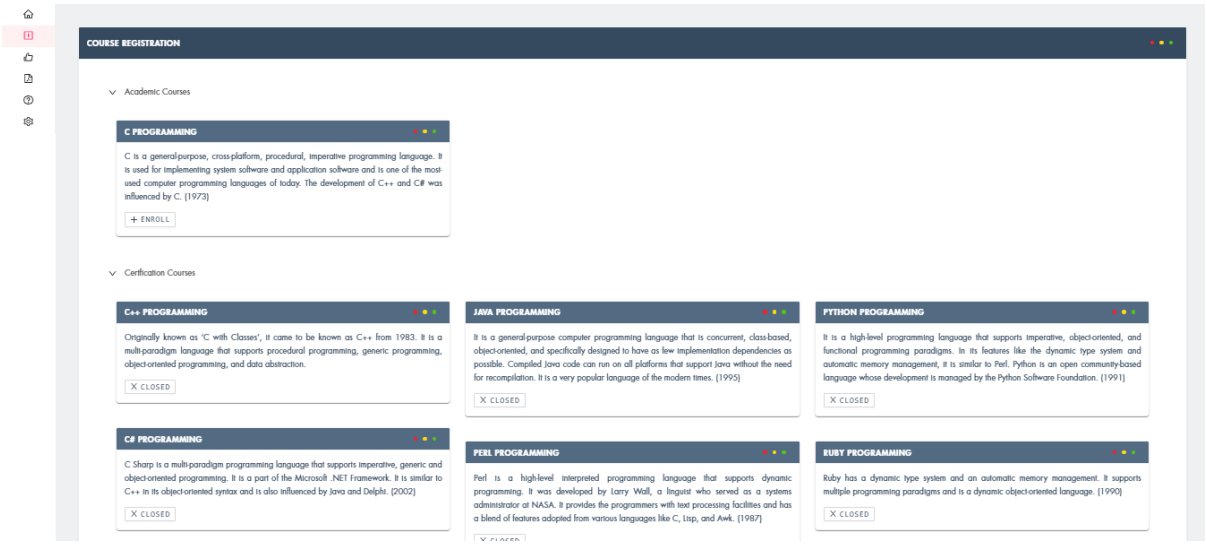
- You can change your default password in Login Information Option in My Account.

Note: The Forgot Password option will be **enabled only after updating the My Account Details.**

Step 3: New Course Registration

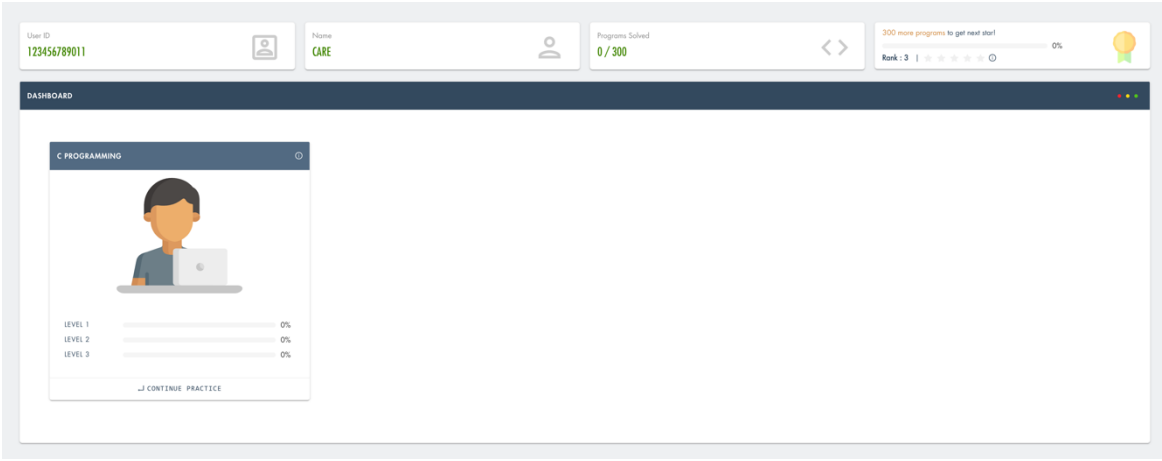
- Students need to give course request by using the course request option Button (+) on the top left corner.

- Once request is given by the student then the request will be automatically approved and the course dashboard is reflected in respective Students Login Home page.



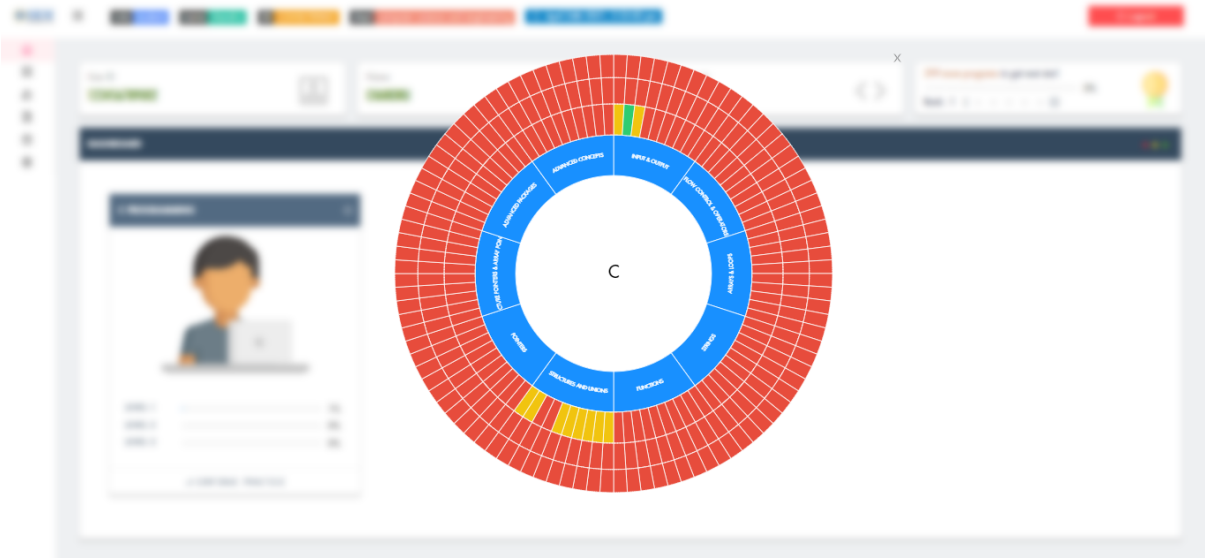
Step 4: After Course registration

The requested course dashboard will be enabled in the student home page for academic practice.



Step 5: Three Levels of question (Level 1 -Easy, Level 2- Medium, Level 3-Hard)

- Click the accepted course, then you will get the Circle with three levels. (Refer to below image)



- Inner Circle indicates Level 1, Middle Circle indicates Level 2, and Outer Circle indicates Level 3 question respectively.

- Every small sector indicates one question.
- Red colour in the sector indicates that the question is not attempted.
- Yellow colour indicates, the question has been attempted or viewed by the user.
- Green colour indicates the Successful compilation.
- In the question Part, there are two visible test cases and it has more than one hidden test case for checking the dynamic performance of a program.
- Mandatory test cases and complexity test cases are visible.
- Completed program status will be reflected on the home page.

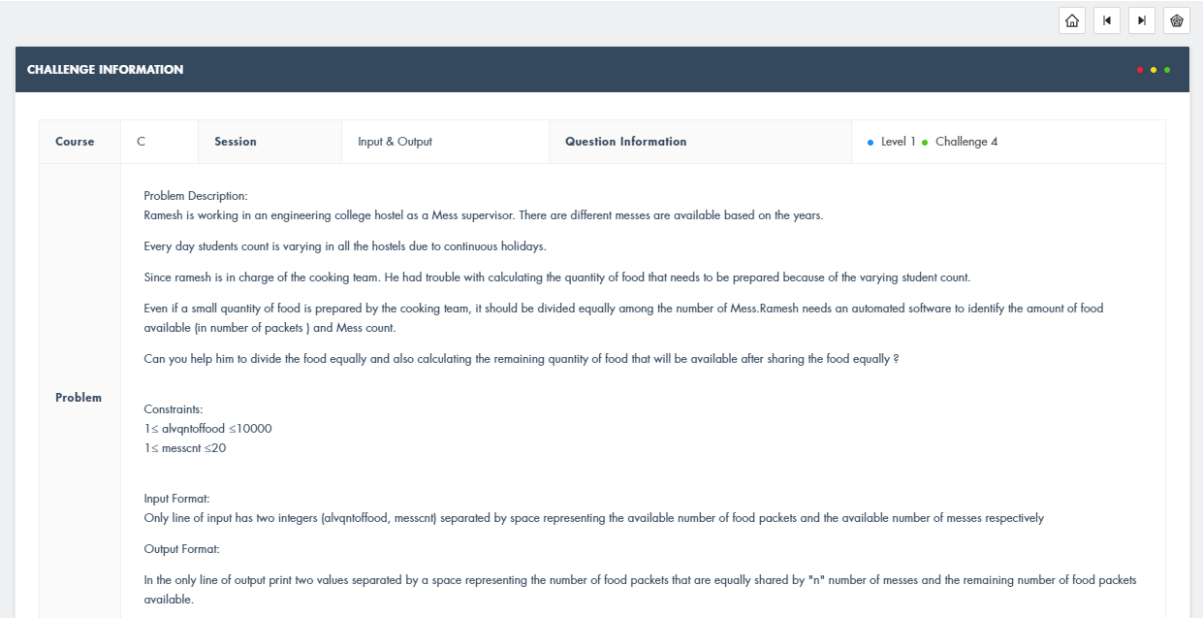
Once the particular sector is clicked you will get the **Question Information Page**

On the Top Right Corner of the page you have four Options for Navigating to **Homepage, Go to Previous Question, Go to Next Question, View Question Circle.**

Basically the Question Information Page is divided into Three Sections namely:

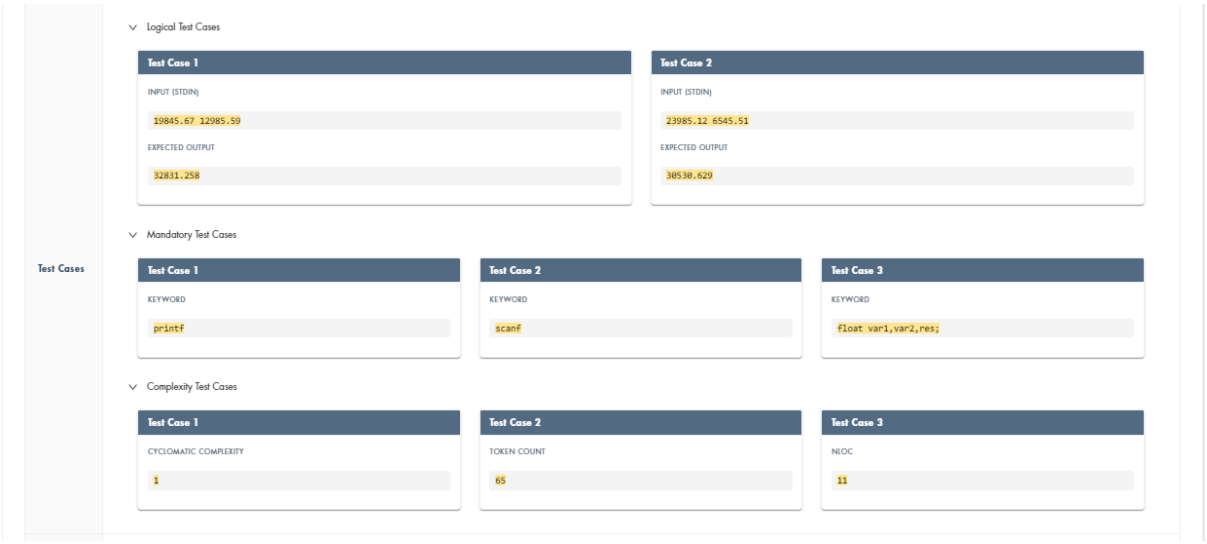
Problem Section:

In the Problem Division you will have all the necessary information about the particular problem like Problem Scenario, Constraints, Input Format and Output Format as shown in the below image:



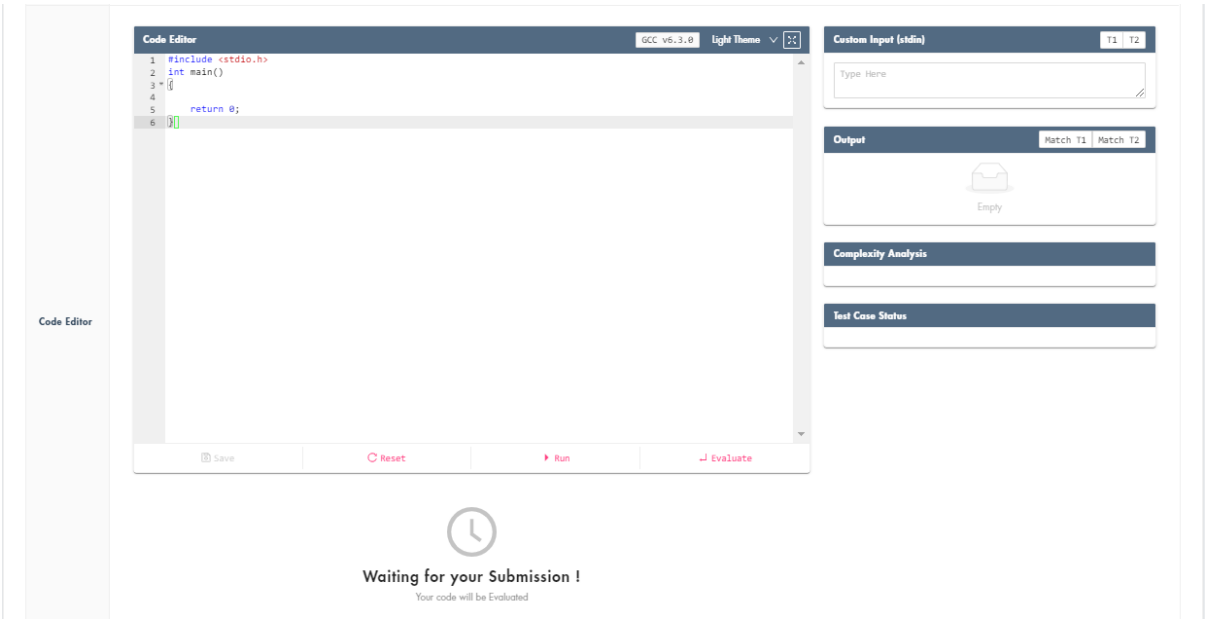
Test Case Section:

In this section you will have 2 Logical Test cases, 1 – 4 Mandatory Test cases and 3 Complexity Test cases as shown in the below image:



Code Editor Section:

The Default Code Editor when clicked for the first time will be as shown in below image:



In the coding area you can type the code for the problem given to you.
On the Top Right Corner under **custom input section** by clicking **T1** and **T2** buttons you can copy the Test case 1 Input and Test case 2 Input respectively.

Similarly under **output section** by clicking **Match T1** and **Match T2** you can check if **Case and Space** of your codes output matches with the expected test case output.

At the Bottom of the Code editor you have Buttons namely:
Save – to save the code you have typed before it is being evaluated.

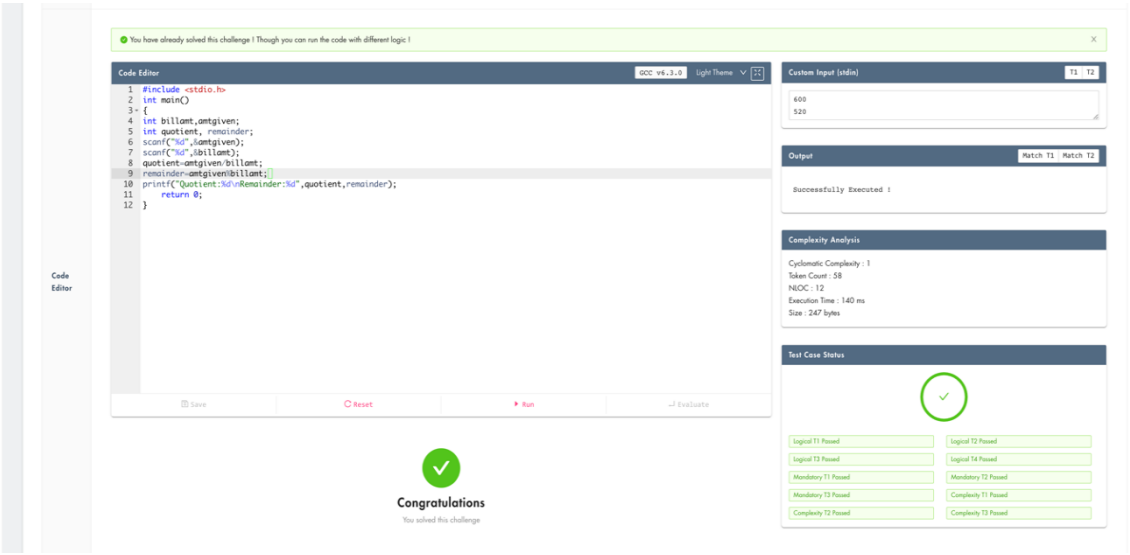
Reset – to reset the code editor to default screen

Run – to run your code and to check for errors in the code. If you have errors in your code it will be displayed in the **Test Case Analysis Section**

Evaluate – to check if your code passes all the Logical, Mandatory and Complexity test cases of the problem. If the test case is passed successfully you will get the Test cases passing status in Green or else in Red.

Apart from this you will get the **Complexity Analysis information** of that problem under **Complexity Analysis Section**

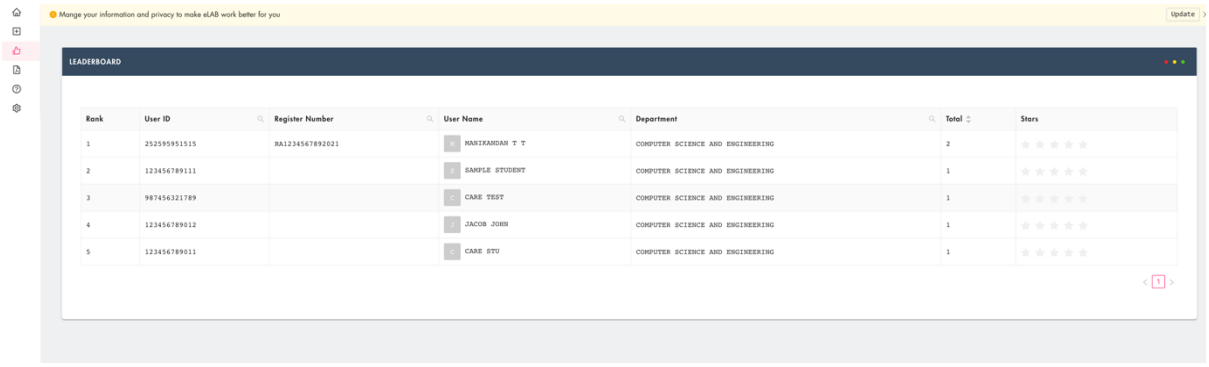
Note:
All these test cases need to be passed by your code for the particular problem to get 100% EVALUATION as shown in the below image:



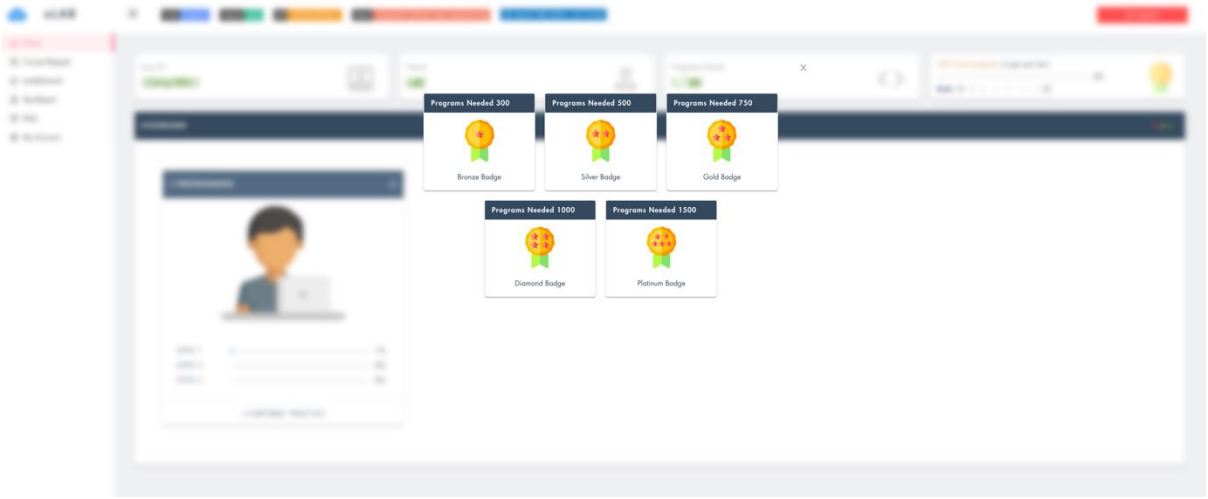
Once you have successfully evaluated the question then **Evaluate Button witll be Disabled. You can Only Run your problem afterwards.**

Leaderboard

Under Leaderboard Section you can see your **RANK** and **STARS** attained by you among all other users.



On Completion of 300, 500, 750, 1000 and 1500 questions you will attain the Bronze, Silver, Gold, Diamond and Platinum Badges respectively.



FAQ (Frequently Asked Questions):

This section gives information regarding the basic details such as Cyclomatic Complexity, Tokens, Number of lines count and other information about eLab tool.

FREQUENTLY ASKED QUESTIONS

1 **What Is eLab?**

eLab is an Auto Evaluation Tool for Programming Courses

2 **Compilers Used In eLab?**

As with C/C++, make sure you are using a standard compiler/interpreter. The exact ones that eLab uses are listed next to the language when submitting the program.

C =GCC v6.3.0
CPP =G++ v6.3.0
JAVA=JAVA SE v1.8.0
PYTHON =PYTHON v3.5
CSHARP =MONO JIT v6.4.0
RUBY =RUBY v2.3.3
PERL =PERL 5 v2.4.1
MATHS LAB =GNU OCTAVE v4.0.2
SWIFT =SWIFT v4.2.1
LUA =LUA v5.1.5
GO =GO v1.13
HASKELL =GHC v8.0.1
R =R v3.3.3
RUST =RUST v1.24.1
JULIA =JULIA v0.4.7
VERILOG= IVERILOG v10.1

3 **How Do I Write My Code?**

Each challenge page has an online editor embedded in the page for you to write and test your code in.

4 **Why Should I Solve Challenges?**

For Fun. What's more exciting than solving challenging problems? We're constantly adding helpful features to make our platform the best possible experience, such as boilerplate code and animations that display when you're running code.
Glory. As you solve more challenges, you will get more stars and move up in the eLab Leaderboard.
Learning . Expand your knowledge by learning new programming topics and techniques by going through our challenges and editorial solutions. We believe the best way to learn something is by doing it!
And More!