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BENCHMARKING SERVICE  
USER MANUAL

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ProCODERS

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# Contents

<b>Table Of Contents</b>	<b>1</b>
<b>1 System overview</b>	<b>2</b>
1.1 Users of the system . . . . .	2
<b>2 System Summary</b>	<b>2</b>
2.1 Modules of the System . . . . .	2
2.1.1 Authentication . . . . .	2
2.1.2 Access . . . . .	2
2.1.3 Result Display . . . . .	2
2.1.4 VM . . . . .	2
2.2 Data Flow . . . . .	2
2.3 User Level . . . . .	2
2.3.1 Registered User . . . . .	2
2.3.2 Guest User . . . . .	3
<b>3 Getting Started</b>	<b>3</b>
3.1 Registering . . . . .	3
3.2 Log in . . . . .	3
3.3 System Menu . . . . .	3
3.4 Result . . . . .	3
3.5 System Requirements . . . . .	4
3.6 Exit the System . . . . .	4
<b>4 Conclusion</b>	<b>4</b>

# 1 System overview

Benchmarking is a very common and useful service, and yet few benchmarking tools or services are easily available. Those that are available may require intricate configuration that is beyond the reach of the budding developers, researchers, teachers and students who would like to use them. The development of a benchmarking service which can be used in a simple and generic way would therefore be welcomed by a large potential user base.

## 1.1 Users of the system

The system has about 2 user which are Guest user and Registered user. The different between the 2 user is that the Registered user is a user who has an account with the system and have privileges of saving their records and the Guest user does not have the account but can still use the system but cannot record.

## 2 System Summary

This section explain the layout and how the system interact as subsystem

### 2.1 Modules of the System

This System has about 4 modules which are: Authentication, Access, Result Display and VM.

#### 2.1.1 Authentication

The Authentication module is the one in which the user can register with into the system. It basically validate the user's information as they log in or register into the system.

#### 2.1.2 Access

The Access module is the one that interact with the user both registered and non-registered where the user upload their code into the system and compilation and validation of the input files.

#### 2.1.3 Result Display

The Result Display works in just displaying the result in graphical representation and export the result into a json or pdf file.

#### 2.1.4 VM

the VM module is the subsystem where the bench marking take place. That is where the code is benched marked in a virtual machine.

### 2.2 Data Flow

The user access the system through the Access module. The user has to upload the Algorithm and Tester files they want to bench mark through the Access module. Access module take the files from the user into the VM module to run the test. The VM takes the result to the Result Display to commune the result to the user in a graphical representation.

### 2.3 User Level

As explain in the above section that the system has 2 user: Registered and Guest User

#### 2.3.1 Registered User

This user have a complete access to the services provided by the system. which are the user can bench mark and store the result in the system for future reference.

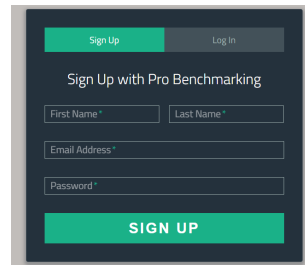
### 2.3.2 Guest User

This user can only bench mark and export the result into a file but cannot store the result in the system.

## 3 Getting Started

### 3.1 Registering

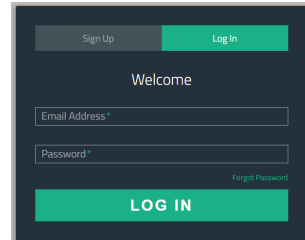
The user will have to provide personal details as shown in the figure 1 that Name, Lastname, Email and password is required. The user has to provide a unique email because the system will not allow the user to use an email that have already to being used by other user.

A registration form with a dark background. At the top, there are two buttons: 'Sign Up' (highlighted in green) and 'Log In' (grey). Below them is the text 'Sign Up with Pro Benchmarking'. The form contains four input fields: 'First Name \*', 'Last Name \*', 'Email Address \*', and 'Password \*'. At the bottom is a large green button labeled 'SIGN UP'.

**Figure 1:** Registered

### 3.2 Log in

Only the Registered user can log in into the system. The email and the password of the user has to be the same provided when registering else the system will not allow the user to proceed until the required information is given.

A login form with a dark background. At the top, there are two buttons: 'Sign Up' (grey) and 'Log In' (highlighted in green). Below them is the text 'Welcome'. The form contains two input fields: 'Email Address \*' and 'Password \*'. There is a link 'Forgot Password' in green text to the right of the password field. At the bottom is a large green button labeled 'LOG IN'.

**Figure 2:** Log In

### 3.3 System Menu

The menu of the system only has few requirement to use the system to both Registered and Guest. The following are the Guideline to be followed:

Make sure you upload Algorithms together with their Tester main.

Do not upload .class or makefile only .java and .txt files

No files with errors will be allowed

Name your testers in the same name with a number at the end. example Test1.java, Test2.java, Test2.java...

Make sure that testers interact with the appropriate algorithm

Your can name the algorithm many thing you want.

Check out figure 3

### 3.4 Result

The result will be in a table and graph. The user can shows which graphical representation do they want to see. Figure 4

## Benchmarking Services for RAM Usage,CPU Time,Heat Generation,Power Consumption.

Home / Benchmark

Chose the files that you want to benchmark. The service will provide you with RAM usage,CUP Time,Power Consumption and Heat generator graphical representation.

Rules:

- Make sure you upload Algorithms together with their Tester main.
- Do not upload .class or makefile only java files
- No files with errors will be allowed
- Name your testers in the same name with a numberat the end. example Test1.java, Test2.java, Test2.java...
- Make sure that testers interact with the appropriate algorithm
- Your can name the algorithm anything you want.

Choose a Java Code from your machine.

No file chosen

Figure 3: Menu

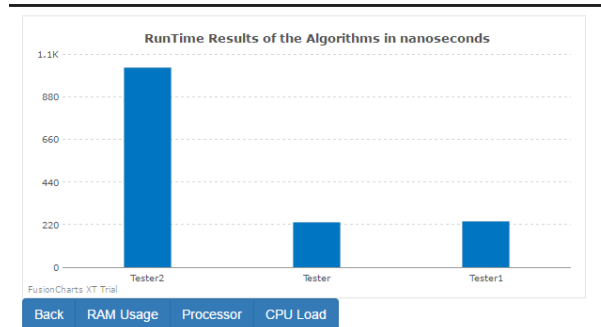


Figure 4: Result

### 3.5 System Requirements

Internet Browser (Chrome/Firefox/Opera) and a working internet connection.

### 3.6 Exit the System

To exit the system is simple. since this is an online service the user can either log out if the have log in then close the tab on their browser or just close the browser to exit the system.

## 4 Conclusion

To use this service the user has to follow the procedure provided then the system will comply and provide you with the required result.