Welcome to CS0.101 Lab 0

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Introduction

Coding can be learnt only by solving programming problems!

80% of wieghtage of evaluations is on programming problems.

> **Goal**: Solve 8-9 programming problems every week.
> (3 in lab, 2 in tutorial, 2 in practice, 1-2 in > assignment)
> Solve 100 over the entire course.

Lab sessions are evaluated (2% marks per lab, 20% for 10 labs).

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Whats the plan for Lab 0?

- Help you setup the coding environment.

- Downloading problems and learn basic tools required for coding.

- Submiting solutions and seeing the score.

- Solve a hello world problem.

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Some Buzz Words!

AutoLab: where all labs/assignments problems are set. You can download handouts, and upload solutions (or handins). Autolab will automatically grade your solutions and give you a score. You will also get feedback on code from TAs here. You can access autolab in 2 ways.
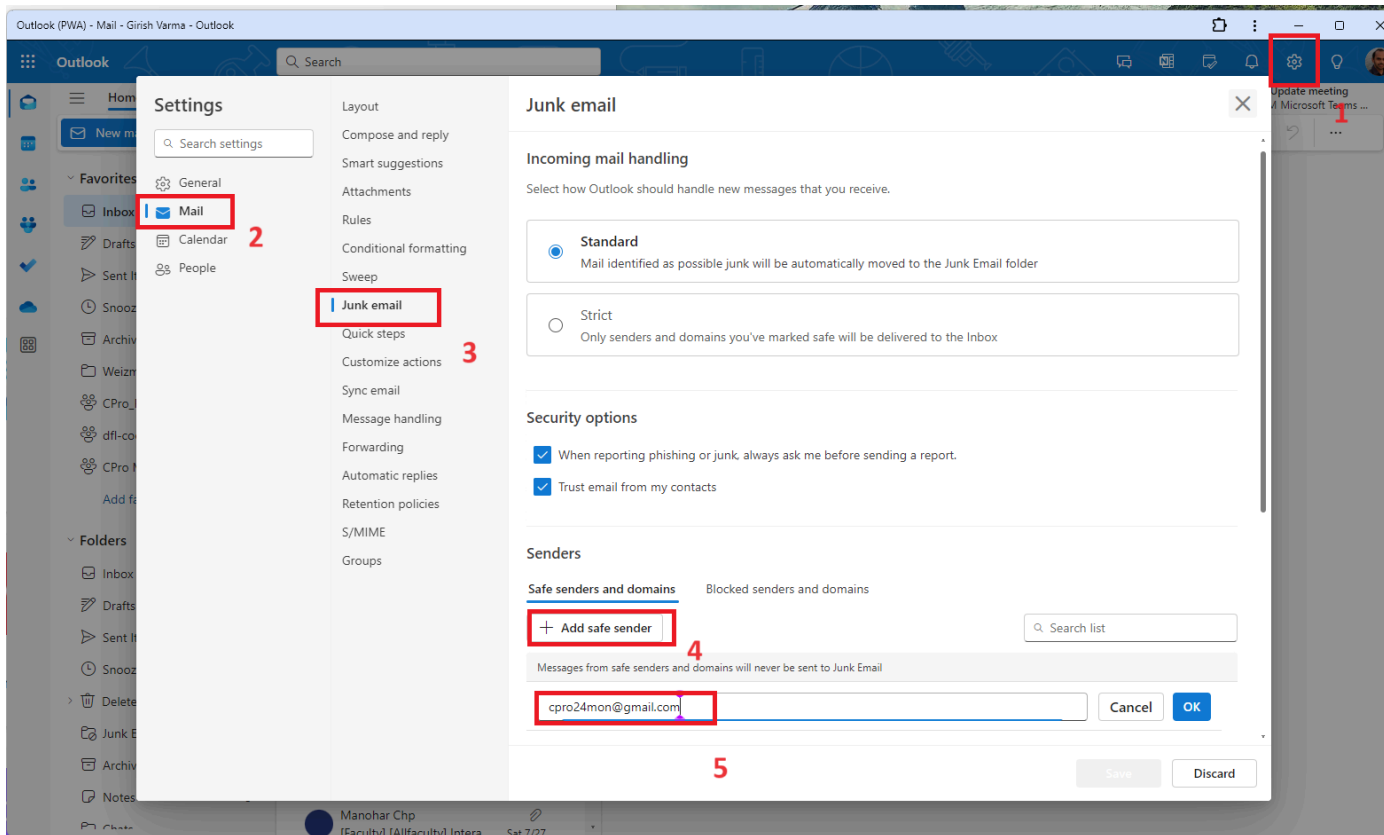
1. Through the website https://pingala.iiit.ac.in

2. Through autolab commands in the *pingala shell*.

Pingala Shell: where you will do all the coding. The *pingala shell* a standard ubuntu linux shell which has all the programs required for this course. This also ensures that the outputs/error that you encounter is similar for the entire batch.

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1. Basic Setup

1.1 Setting Up Outlook to recieve AutoLab Mails

Goto 1.) Settings > 2.) Mail > 3.) Junk Mail > 4.) Add Safe Sender > 5.) add

cpro24mon@gmail.com

1.2 Reseting Password for AutoLab:

Open a browser and go to https://pingala.iiit.ac.in (which is the web interface for autolab). Reset your password using forgot password. Username is IIIT email id.

Remember this password as it will be used for all labs, assignmnets and exams.

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1.2 Open pingala shell:

Open Terminal in lab machines and run the command

```
ssh <your_iiit_username>@pingala.iiit.ac.in
```

Enter your IIIT CAS password to open the *pingala shell. pingala shell* a standard ubuntu linux shell which has all the programs required for this course.

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1.3 Setup AutoLab in shell:

Run the following command for setting up autolab in *pingala shell*

```
autolab setup
```

Copy the 6 character access code and paste it at https://pingala.iiit.ac.in/activate

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2. Download Problems/Basic Tools for Coding

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2.1 Download Problems

Run the bellow command to list the courses

```
autolab courses
```

Run the bellow command to list the assesments under the courses

```
autolab asmt <course_id>
```

<course_id> is "cs0-101-m24" for this course (as shown by previous command).

Run the bellow command to download the handout for Lab 0

```
autolab download <course_id>:<asmt_id>
```

<asmt_id> is "lab0" for Lab 0 (as shown by previous command).

More Info: https://docs.autolabproject.com/command-line-interface/

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2.2 Navigate folders and edit code in pingala shell

- use `ls` command to list folders and files in current directory
- use `cd` to change the directory
- use `nano <file_name>` to edit `<file_name>` as a text file.

More Info: https://missing.csail.mit.edu/2020/course-shell/

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2.3 Test your solutions locally

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3. Submitting Solutions/Seeing Score

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3.1 Submit solutions

3.2 See your score

4. Solve Lab 0

Questions

Can I use my computer/editor for coding?

Yes. You can access Autolab either through the website or through Terminal as long as you are connected to IIIT network directly or indirectly through VPN.

However its reccomended to use the **pingala shell**. This ensures that you can get help from your colleages and TAs easily.

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Thanks