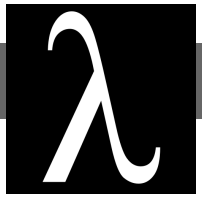

Contents

1 Setup Lab

1.1 Introduction

Welcome to your first lab!

Well, not really... Unlike other labs, `setup_lab` is not accompanied by a lab session with TAs and classmates that is engaging, collaborative, and amazing.

We **strongly recommend** completeing this lab before the first ***real*** lab, so that we can jump right into the content. Completing all lab tasks will ensure you are prepared for your first lab and homework.

Please follow all instructions carefully, and post on Piazza in advance if you encounter any issues.

1.2 The 15-150 Setup Reference

The 15-150 Setup Reference is extremely important as it will guide you through all the necessary steps that you need for your 15-150 environment setup.

Task 1.1.

Read through the entirety of the 15-150 Setup Reference, following the instructions detailed throughout the document.

A stable setup—from having a working AFS environment, to using a graphical editor—can save a lot of time throughout the semester so don't skip out on any section!

Do ***not*** continue further in this lab until you have completed the instructions in the 15-150 Setup Reference.

1.3 Downloading a Lab from Canvas

We will use Canvas to distribute various files to you this semester. Under "Assignments", you can access the writeups and code handouts for both labs and homeworks.

Before or during each lab, you will need to access the `.pdf` (writeup) and `.tar` (code handout) files from Canvas.

Task 1.2.

1. Navigate to the "Setup Lab" assignment on Canvas, download the `setup_lab.tar` file, and copy the file to your AFS `15150` directory.
2. Navigate to your AFS `15150` directory and untar `setup_lab.tar` by running:

   ```
   tar -xvf setup_lab.tar
   ```

   Note: Avoid untarring handouts locally, as this may mess with the permissions and lead to issues with checkins, running your code, and more.
3. Navigate into your new `setup_lab` directory and confirm that it contains the following. You may find the `tree` command helpful.

   Below is what should appear in your terminal when running `tree`

```
setup_lab
├── code
│   └── sources.mlb
├── lib
│   ├── 150basis
│   │   └── (omitted)
│   ├── libmap
│   └── pathconfig
├── Makefile
├── millet.toml
└── README.md
```

1.4 Using the `smlnj` REPL

Now it's time to make sure your REPL is working!

Task 1.3.

Log on to AFS and open the REPL using `smlnj`.

Run:

```
- "Hello, " ^ "world!";
val it = "Hello, world!" : string
```

Exit the REPL once you're done.

1.5 Completing Lab Check-in

At the end of each lab, after completing all required sections, your lab TAs will review your work and give you credit for the lab via the lab check-in procedure.

1.5.1 In-Person Lab Check-In Procedure

The check-in procedure for **in-person labs** is as follows:

1. First, make sure you are logged onto AFS.
2. In the `<topic>_lab` directory, type `make checkin`.
3. After running `make checkin`, a QR code should be generated.
4. Wait until a TA reviews your work.
5. Once the TA has reviewed your work, they will scan your QR code, giving you credit for the lab.

You do not need to be checked in for Setup Lab, but you should run `make checkin` in the `setup_lab` directory to ensure that the QR code is generated correctly (and to get some practice with running the command).