

Assignment 1

due Wednesday, August 31, 2022

Homework is generally due at 6pm on the due date. In this case, the due date is only meant to scare you. The assignment is not graded and there is nothing you need to turn in.

Required

Make sure you can find all the web pages associated with this course:

- The course home page:

<https://www.cs.cmu.edu/~mheule/15217-f22>

- The course textbook:

<https://avigad.github.io/lamr>

- A PDF version of the course textbook:

https://avigad.github.io/lamr/logic_and_mechanized_reasoning.pdf

- The course repository:

<https://github.com/avigad/lamr>

Follow the instructions in the course repository to make sure you have at least one way of running Lean with the relevant software and libraries. Let us know if you have trouble; we will be happy to help you debug.

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Recommended

We recommend that you join the Lean Zulip channel:

<https://leanprover.zulipchat.com/>

If you introduce yourself in the public `#new_members` stream, people will welcome you, and members of the Lean community are generally happy to answer questions.

You can turn in handwritten homework if you would like, but in the long run it will help you to learn to use \LaTeX . There are easy-to-install versions for all the major platforms and lots of tutorials online. Carnegie Mellon has a subscription to Overleaf:

<https://www.overleaf.com/edu/cmu>

That will let you run Latex from your browser if you would like. There is a template on the course page that you can use to turn in solutions to the homework. We will not grade you on your typesetting skills; even a badly typeset homework assignment is generally easier to read than a handwritten one, and we will be happy to answer questions and provide L^AT_EX tips and advice.

The textbook lists some additional resources, including:

- The Lean 4 manual: <https://leanprover.github.io/lean4/doc/>
- Theorem Proving in Lean 4: https://leanprover.github.io/theorem_proving_in_lean4/
- The Lean community web pages: <https://leanprover-community.github.io/>

Finally, although you will not need Git and Github for this class, they are powerful tools for collaboration. There is plenty of online documentation, for example, here:

<https://docs.github.com/en>

We'd be happy to talk to you about Git and Github and answer questions.