Assignment 1 – CS 4536/536: Programming Language Design   
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# Overview

The primary goal of this assignment is to install and gain proficiency with Rust, the programming language that will be used in this course.

## How Long Will This Take?

My goal is that most students will spend at most 13 hours/week on this course and that few will spend more than 15 hours/week, in total.

If you have spent more than eight hours on this assignment and are not done, you are **expected** to reach out to the course staff for help (office hours, chat, or email). It is our job to help you and your job to seek help when appropriate.

## Grading

This assignment will also get you used to the basic structure of assignments in this course. Most of the assignments are divided into a programming part, which is autograded, and a written part, which is evaluated by your peers. The written problems are graded by effort: full credit is given for each problem where an honest effort is made. However, students are expected to take all problems seriously and to keep in mind that your fellow students will read your work: write the kind of answers you would want to read.

This assignment is worth 100 points. 75 points are for the programming part and 25 points for the written part. Your grade for the programming part is 75 \* the fraction of test cases that pass. Your grade for the written part is 25 \* the fraction of problems for which you submit an honest attempt at a solution.

## What to Read While Working on This Assignment

In addition to the lecture readings about Rust, you should refer to the official Rust learning resources as-needed: <https://www.rust-lang.org/learn>

## Setup

If you do not have VSCode installed, install it from <https://code.visualstudio.com/>  
Follow these instructions to install **both** Rust and the rust-visualizer extension for VSCode, which adds support for Rust.

<https://code.visualstudio.com/docs/languages/rust>

## Programming Assignment

Download and extract the programming assignment from Canvas. Your assignment is to implement all the unimplemented functions to meet their specifications as given in the comments.

The point breakdown is as follows:

* 10pts – Hello World
* 10pts – I/O
* 15pts – Lists
* 20pts – Loops
* 20pts – Recursion

## Written Assignment

10pts In 2-4 sentences, summarize your personal learning objectives for this course. Of the objectives listed in the syllabus, which are most important to you? Are there any topics you’d like to learn about which are not on the syllabus? If so, which? (If so, you are encouraged to reach out to the instructor for supplemental material)

10pts In 2-4 sentences, summarize your prior experiences of programming languages by comparing yourself to the different personas discussed in the first lecture.

5pts What are your favorite and least favorite programming languages? Share your favorite and least favorite experiences using those languages.

(Bonus) 5pts Students are encouraged to keep a personal glossary of key vocabulary terms that are introduced during the lectures. This should be a simple Word document with a bullet list of each key term and its definition. For extra credit, you can submit this glossary with each week’s assignment.

## Submission

Submit both your programming problems and written problems on Gradescope. Gradescope will give you an automatic grade when you submit.