



IO

CS128 Honors Rust 101 Module

Slides by Matt Geimer (FA21)
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What is IO?

IO

- IO is short for **input/output**
- IO is the interaction between the computer and an external source, where some data is **input** and the computer **outputs** data
- IO doesn't always have to be a human either. It can be a file or a network



Reading from the command line

Rust IO

```
use std::io;
use std::io::Write;

fn main() {
    let mut input = String::new();

    print!("Enter your name: ");
    io::stdout().flush().unwrap();

    io::stdin().read_line(&mut input).unwrap();

    println!("Howdy, {}", input.trim());
}
```





Reading from the command line

Rust IO

```
use std::io; ←
use std::io::Write; ←

fn main() {
    let mut input = String::new();

    print!("Enter your name: ");
    io::stdout().flush().unwrap();

    io::stdin().read_line(&mut input).unwrap();

    println!("Howdy, {}", input.trim());
}
```





Reading from a file

Rust IO

```
use std::io::prelude::*;
use std::io::BufReader;
use std::fs::File;

fn main() {
    let f = File::open("src/main.rs").unwrap();
    let reader = BufReader::new(f);


    for line in reader.lines() {
        println!("{}", line.unwrap());
    }
}
```



Reading from a file

Rust IO

```
fn main() {  
    let f = File::open("src/main.rs").unwrap();  
    let reader = BufReader::new(f);  
  
    for line in reader.lines() {  
        println!("{}", line.unwrap());  
    }  
}
```





Summary

Rust IO

- IO allows the program to send/receive data
- Typically either to a human/file
- Learned about
 - `flush`
 - `read_line`
 - `lines`
 - `unwrap`



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Sources Used

- Rust Crate Documentation
 - <https://doc.rust-lang.org/std/io/index.html>