APPS@UCU

Rust #4: Smart pointers, Concurrency and Async

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Contents

Smart pointers

List slide

Rust standard library has a few useful smart pointers:

- Box<T>
- Rc<T>
- Cell<T>
- RefCell<T>

Concurrency

Concurrency

TODO: Talk about Arc, Mutex, mspc, and the way Rust's system prevents data races at compile time.

Async

Async

Rust has, relatively recently, finally settled with its asynchronous implementation. We do not have the time to cover all the details of its implementation, and therefore its history and efficiency, however, we will see the ease with which your Rust programs can become asynchronous.
TODO: talk about runtimes, executors, reactors, libraries, futures, async, await, closures etc.

Looking back

Looking back

TODO: Having learned these powerful abstractions and techniques blah blah blah

And ahead...

Looking back

TODO: We haven’t covered quite a lot of important stuff in Rust. Here are some pointers on what you could do and where you should probably look

Thank you!