COMP6991 23T1

Getting started with Rust

let statements

> BINDINGS

> MUTABILITY

> SHADOWING

> ASIDE: CONSTANTS

Basic types

> INTEGER TYPES (FIXED, ARCH)

> FLOATING POINT TYPES

> BOOLEAN

> CHARACTER

Compound types

> TUPLES, ARRAYS

> STRUCTS, ENUMS

> ASIDE: PERVASIVE MUTABILITY

> ASIDE: UNIT

Expression vs Statement

> VALUE PRODUCTION

> IMPLICATIONS ON NESTING

> ITEM DECLARATIONS

> LET STATEMENTS

> EXPRESSION STATEMENTS

Functions

> PARAMETERS

> RETURN VALUES

> EARLY-RETURN

> EXPRESSION-RETURN

If expressions

> BRANCHING

> WHAT IS A VALID CONDITION?

> AS AN EXPRESSION

> TERNARY IF?

Looping

> LOOP

> WHILE

> FOR

> EARLY TERMINATION

> LOOP BREAK VALUE

Match

> PATTERN MATCHING

> EXHAUSTIVENESS

> CATCH-ALL

> EXAMPLE: MATCH OPTION<T>

> EXAMPLE: MATCH RESULT<T, E>

Ownership

e.g. String, Vec

> ONE OWNER

- > TRANSFER OF OWNERSHIP (MOVE)
- > DROP (VS GC? RC?)

> ESCAPE HATCH: CLONE

Copy

e.g. i32, bool, char

> DOES NOT FOLLOW OWNERSHIP

> VALUE SEMANTICS

> SIMPLE SCALAR TYPES

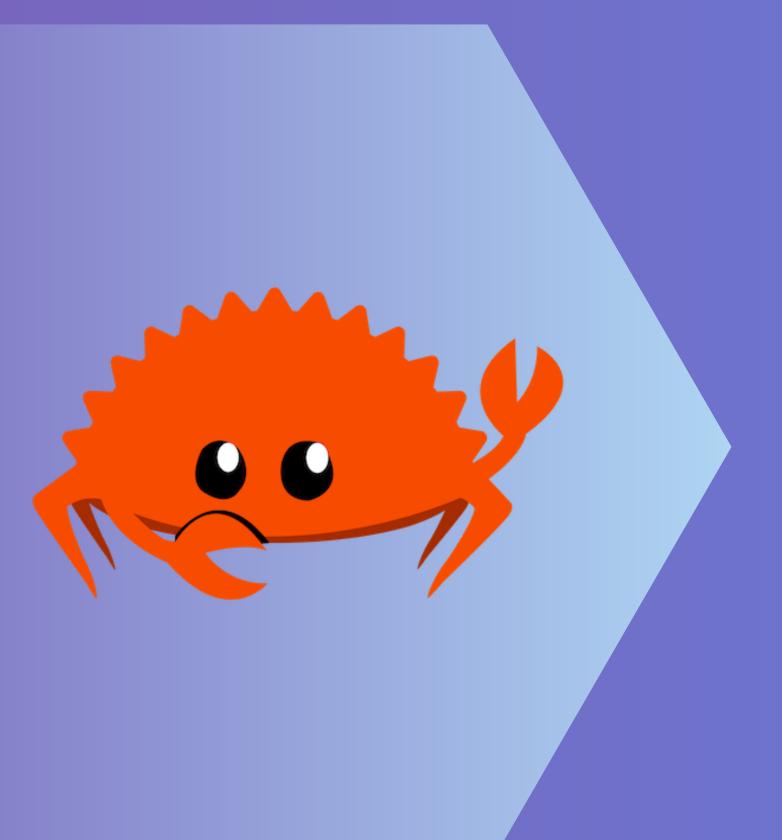
> TUPLES? ARRAYS?

> STRUCTS? ENUMS?

Ownership x fn

> PASSING OWNERSHIP INTO A FN

> OWNERSHIP OUT OF A FN



Get excited for workshop 1!

See you next week!