# Lesson 5

**Reading:**

* The Rust Programming Language Introduction, Chapter 4.2
  + https://doc.rust-lang.org/book/

**Assignments:**

* Lesson 4 Lab Due

**Preflight**:

* Review the handout prior to class

**Lesson Goals**:

* Understand & apply references
* Know common instances of errors when using references & borrowing

**Motivation:**

* Although students may be familiar with pointers (from languages like C), they likely are not as familiar with references
* Borrowing in Rust is one of its many “safety nets” and is important for a memory-safe developer to understand

**Lecture**:

* Overview of the primary differences between pointers & references
* Emphasize the important differences between mutable references & immutable references
* Give examples of valid & invalid references

**Lab:**

* Complete References Lab