5a. Overview and Goals

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Thus far, we've laid the groundwork by introducing the fundamentals of Julia. We've covered in particular variables (single-element and collections) and core programming tools (functions, conditions, and for-loops). At this initial stage, our emphasis was primarily on helping you familiarize with the core approaches and their syntax. However, we didn't delve into any of these concepts, nor did we explore how the tools can be applied and combined.

Equipped now with a foundational knowledge of the concepts, we're ready to explore each in greater depth. **Chapter 5 in particular focuses on mutable collections**, using vectors as their primary example. As we begin to integrate these tools, it may take some time to get fully comfortable with their usage. In fact, you may occasionally need to revisit the sections on functions, conditions, and for-loops.

Despite that our focus is on vectors, many of the lessons we'll learn are applicable across all mutable collections. For instance, this is the case for concepts such as indexing and in-place operations. Other techniques presented extend even further, making their application universal across programming languages. Examples of this include the notion of mutability, along with the distinction between assignments and mutations.