Handout 6 CSCI 334: Spring 2024

Pattern Matching

Pattern matching is a functional programming technique for conditional logic. It is often used when one wants to *test* that a data structure matches a given case and then *extract* data from it.

Pattern matching works by testing a value against a sequence of patterns. The first pattern that matches *binds* parts of the value to variables in the pattern. Those variables can then be used in an expression to the left.

<u>Problem statement:</u> Write a function listOfInts that returns a list of integers from zero to n. Use pattern matching to solve this problem.

To make it easier to start, here is the start of a function definition. Finish writing the definition.

```
let rec listOfInts (n: int) : int list =
```