Pattern matching

Pattern matching functions

Pattern matching is a technique for elegantly handling cases in code. It is an alternative to conditionals, which are hard to read when there are more than two cases. Pattern matching also deconstructs and binds values to variables.

<u>Problem statement</u>: Write a function get_nth that takes a list of strings and an integer n and returns the n^{th} element of the list where the head of the list is defined as the 1^{st} element.

<u>The potential error</u>: What happens when the list is empty or when n is greater than the length of the list? As a practical matter we need to address these cases. Use the option type to handle this case. The type is defined as:

type option<'a> = None | Some of 'a

Your solution: