CSCI 485 Programming Languages
Assignment 6

Due Friday, March 25

1. (60 points) Using the constructs in SML, design a `stack` abstract data type for `String` elements in SML. Include operations for `push`, `pop`, `top`, and `empty`.

   - `pop`: the `pop` operation removes the element at the top of the stack and returns the new stack.
   - `push`: the `push` operation adds a new element to the top of the stack.
   - `empty`: the `empty` operation returns a `Boolean` value indicating whether the stack is empty.
   - `top`: the `top` operation returns the top value of the stack without removing it.

   (40 points) In addition, provide *at least one non-trivial* unit test case in SML for each operations above.

   Submit the source code in a zip file package in Blackboard.