Question 5 (20 points): Write RISC-V assembly for the function `reverseString` that reverses the order of characters in a null terminated string. For example, `reverseString` changes the string `RISC` into the string `CSIR` or the string `ISA` into the string `ASI`. The resulting string is also null terminated. These are only examples, `reverseString` must work for strings with any number of characters, including an empty string. The parameters for `reverseString` are as follows:

- `a0`: the address of the first character of a null-terminates string.

- `a1`: the number of characters in the string.

`reverseString` has no return value.

The assembly code that you write must follow all the register saving/restoring conventions for RISC-V.

RISC-V code for `reverseString`