[hidelinks,12pt]article amsmath graphicx [english]babel [utf8]inputenc fancyhdr tabularx hyperref float subcaption listings xcolor

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fancy Postfix Evaluator in MIPS

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tabularc c Harsh Agrawal 2019CS10431

Approach We implemented a stack based algorithm to evaluate the input postfix expression. The algorithm is as follows

Algorithm The algorithm iterates over the input string character by character enumerate

W hen the current character is an operand $(0 - 9)$ the character is pushed to the program stack.

W hen the current character is an operator $(+| - |*)$ the top two entries in the stack are popped and the corresponding operation is performed. The result of the operation is pushed back to the stack.

W hen the current character is either a newline $(92n)$ or the null character $(92x00)$ the topmost entry is popped from the stack and printed.