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Professor Monshi

CMSC 204

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**Assignment 2 Design Document**

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| Notation |
| infixToPostfix(String infix)  Declare a string called postfix  Declare a char called c  Declare a NotationStack called stack  For int x = 0; x < infix length; x+1  c = infix char at x  Switch c  Case number  Add c to postfix  Break  Case ‘+’ ‘-’ ‘\*’ ‘/’  While stack is not empty and precedence of c is <= precedence of stack’s top entry  Add stack’s top entry to postfix  Pop stack  Push c in stack  Break  While stack in not empty  Add pop stack to postfix  Return postfix  postfixTiInfix(String postfix)  Declare a string called infix  Declare three chars called c, op1, op2  Declare a NotationStack called stack  For int x = 0; x < postfix length; x+1  c = postfix char at x  Switch c  Case number  Push c to stack  Break  Case ‘+’ ‘-’ ‘\*’ ‘/’  op2 = pop stack  op1 = pop stack  Add “op1 + c + op2” to postfix  Break  Return postfix  evaluatePostfix(String postfixExpr)  Declare a double called answer  Declare 3 chars called c, op1, and op2  Declare a NotationStack called stack  For int x = 0; x < postfixExpr length; x+1  c = infix char at x  Switch c  Case number  Push c in stack  Break  Case ‘+’ ‘-’ ‘\*’ ‘/’  op1 = pop stack  op2 = pop stack  Declare a double called result and initialize to result of the operation  Pust result to stack  Break  answer = stack peek  Return answer |