|  |
| --- |
| //Calculator java |
|  | import java.util.Scanner; |
|  | //Numbers with Decimals |
|  | // addition, subtraction, multiplication, division, exponenets |
|  | //Modulus |
|  | //error messages when something is wrong |
|  | // keeps running until told to quit |
|  |  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |  |
|  | public class Calculator{ |
|  |  |
|  | //MAIN PROGRAM |
|  | public static void main(String[] args){ |
|  | Scanner keyboard = new Scanner(System.in); |
|  |  |
|  | double num1, num2, ans; |
|  | String oper; |
|  |  |
|  | System.out.println("NAGMA's SIMPLE CALCULATOR PROGRAM"); |
|  |  |
|  | do{ |
|  | System.out.println("Please enter your calculation (number 1 [operation] number 2: "); |
|  | System.out.print("> "); |
|  | num1 = keyboard.nextDouble(); |
|  | oper = keyboard.next(); |
|  | num2 = keyboard.nextDouble(); |
|  |  |
|  | if (oper.equals("+")){ |
|  | ans = num1 + num2; |
|  | } |
|  | else if (oper.equals("-")){ |
|  | ans = num1 - num2; |
|  | } |
|  | else if (oper.equals("\*")){ |
|  | ans = num1 \* num2; |
|  | } |
|  | else if (oper.equals("/")){ |
|  | ans = num1/num2; |
|  | } |
|  | else if (oper.equals("^")){ |
|  | ans = Math.pow(num1, num2); |
|  | } |
|  | else if (oper.equals("%")){ |
|  | //converting double to long to do modulus |
|  | long n1 = Math.round(num1); |
|  | long n2 = Math.round(num2); |
|  | ans = is\_Mod(n1, n2); |
|  | } |
|  | else{ |
|  | System.out.println("Undefined operator: '" + oper + "'."); |
|  | ans = 0; |
|  | } |
|  |  |
|  | System.out.println("Result: " + ans); |
|  | } |
|  | while(num1!=0); |
|  | System.out.println("CALCULATION OVER. Bye."); |
|  | } |
|  |  |
|  | //Calculates Modulus |
|  | public static double is\_Mod(long num1, long num2){ |
|  | double ans; |
|  | if (num1%num2 == 0){ |
|  | System.out.println("\n" + num1 + " is fully divisible by " + num2); |
|  | return ans = num1%num2; |
|  | } |
|  | else { |
|  | System.out.println("\n" + num1 + " returns a remainder when divided by " + num2); |
|  | return ans = num1%num2; |
|  | } |
|  | } |
|  | } |