

### 0.0.1 Constructor and the Class as a whole

The constructor for the Function class will be quite simple. We take an expression as an input and:

1. Remove Whitespace from the expression
2. Standardize the expression (using the RegEx rules)
3. Create the Binary Tree
4. Create the Post-Fix Stack from the Binary Tree

Algorithm 1: Function Class Constructor	
1	<b>function</b> <i>Function</i> ( <b>String</b> <i>expression</i> ):
2	<i>expression</i> = <i>expression</i> .strip()
3	<i>expression</i> = standardize( <i>expression</i> )
4	this. <i>expression</i> = <i>expression</i> this. <i>binaryTree</i> = createTree(this. <i>expression</i> )
5	this. <i>postFixStack</i> = this. <i>binaryTree</i> .traverse()
6	<b>end</b>

The class as a whole will look something like the diagram below.

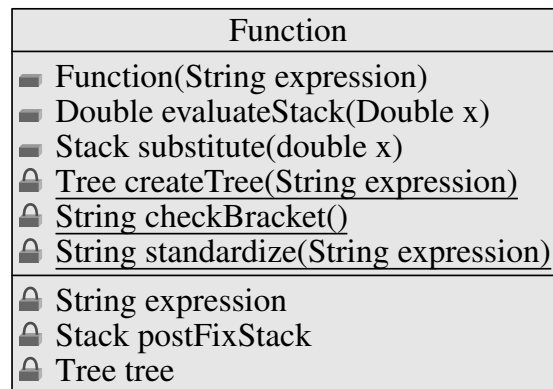


Figure 1: Function Class