**Input:**

[node declaration]

…

[operation] [node\_index]

…

**Output:**

// if [operation] is “checkType”

VariableRefNode // if node [node\_index] is a VariableRefNode

AssignmentNode // if node [node\_index] is a AssignmentNode

// if [operation] is “generateCode”

[code]

// if [operation] is “print”

[node\_declaration]

**Comment:**

The node index starts from 0.

The code generation follows the following rules:

AssignmentNode(x, constant) turns into “x = constant”

AssignmentNode(x, VariableRefNode(y)) turns into “x = y”

You are asked to write a main function in Class Main.

We'll test your program through "java Main inputFile",

e.g java Main sampleInput

You should read input from file.

And show output to standard output.

Sample input and output are in the folder.

**Upload:**

Please push your source code to the master branch of your team’s homework Gitlab repository.

The folder structure should be:

[dir] AST

=> [dir] Team7

=> Main.java

=> \*.java (optional)

=> [name of test case].in

=> [name of test case].out

**You won’t receive any point if you didn’t follow the directory structure or main class name or compressed format!**

**Sample Input**

AssignmentNode(x, 10)

AssignmentNode(y, VariableRefNode(x))

checkType 0

generateCode 0

generateCode 1

print 1

**Sample Output**

AssignmentNode

x = 10

y = x

AssignmentNode(y, VariableRefNode(x))