

CSC402 - Assignment #5

Due Sunday 10/30

Version 1.0

Problems:

The aim of this assignment is to write a tree walker that dumps the AST generated by the Cuppa1 frontend in a similar format as the `grammar_stuff.dump_AST` function.

One way to approach this is to replace the pretty printer tree walkers with a new tree walker that generates the AST dump.

Given this kind of input:

```
get x
x = x + 1
put x
```

Your program should generate something like this:

```
(Seq
  (GetStmt x)
  (Seq
    (AssignStmt x
      (Expr +
        (ID x)
        (INTEGER 1)))
    (Seq
      (PutStmt
        (ID x))
      (Nil))))
```

Demonstrate that your program works by processing the following program:

```
// list of integers
get x;
while (1 <= x)
{
  put x;
  x = x - 1;
}
```

Hand in your source code together with a Jupyter Notebook that shows that your program works. To submit your work create a zip file of your sources and the notebook and submit it through Sakai. Assignments submitted in formats other than Jupyter Notebooks will not be graded and a failing grade will be recorded.