# Compilers Milestone 1

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#### **Compiler Specifications**

 $\bullet$  Source Language : ADA

• Implementation Language : Python

• Target Language : MIPS

 $Python\ PLY$  is used to build lexer and parser  $Graphviz\ dot$  is used to construct the graphical form of the Abstract Syntax Tree

### Abstract Syntax Tree

#### Node class parameters:

- visited: bool which keeps track of visited nodes while doing DFS
- $\bullet$  typ: the LHS of the production rule
- $\bullet$  desig: A string type in which we store the terminals of the RHS of corrosponding production rule
- $\bullet \ \ children$  : non terminals on the RHS

## Command for Running:

python3 parser.py ../tests/input/fibonacci.adb –out=fibonacci.dot