Interpretation

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Theory of Compilation
Laboratory 5

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```
class Interpreter(object):

    @on('node')
    def visit(self, node):
        pass

    @when(AST.BinOp)
    def visit(self, node):
        r1 = self.visit(node.left)
        r2 = self.visit(node.right)
        # try sth smarter than:
        # if(node.op=='+') return r1+r2
        # elsif(node.op=='-') ...
        # but do not use python eval
```

Memory

```
class Memory:

    def __init__(self, name): # memory name

    def has_key(self, name):  # variable name

    def get(self, name):          # gets from memory
    current value of variable <name>

    def put(self, name, value):  # puts into memory
    current value of variable <name>
```

Control flow

```
class ReturnValueException(Exception):

    def __init__(self,value):
        self.value = value

class BreakException(Exception):
    pass

class ContinueException(Exception):
    pass
```

References

1. https://sly.readthedocs.io/en/latest/sly.html