

# Assignment 3

## Programming Languages

1. [100 pts, top down parser] Utilizing cells from the Jupyter notebook provided in lecture modules, write a top-down parser than can parse the following:

```
alist = [1, 3, 4]
sum = 0
for a in alist:
    sum = sum + a
```

Your solution might include only the necessary cells and the output should be at least similar to the following:

```
(= (name alist) ([ [(literal 1), (literal 3), (literal 4)]])
(= (name sum) (literal 0))
(for [(name a)] (name alist))
(= (name sum) (+ (name sum) (name a)))
```

2. [50 pts bonus] Comment about how would you modify your parser program to make "+=" work and comment about adding functionality which checks the Python indentation syntax.

