

Write two regular expressions that can be applied to Python code and match:

1. Each variable, and nothing else.
2. Each line containing a variable assignment, but no other lines.

Assume that the input contains only valid Python syntax. You may also assume that there are no strings.

For example,

```
1    a = 2
2    if a == 2:
3        b=3
4        a+=1
5    c = (a,b)
6    def d(x):
7        return x-1
8    a2,B_2 = (3,4)
9    (g, [h, i]) = [5,[6,7]]
```

In this test case, your first expression should match `a`, `b`, `c`, `d`, `x`, `a2`, `B_2`, `g`, `h`, and `i`. Your second expression should match lines 1, 3, 5, 6, 8, 9.

Write your pattern strings in files titled `solution1.txt` and `solution2.txt`.

Run `hw02_evaluate.py`, making sure that your solution file is on the Python path. If you're unsure whether the result is satisfactory, ask the instructor or TA.

Extra credit

Match the variables themselves in each assignment (and only the assignments); i.e. match `a` in line 1, `b` in line 3, `c` in line 5, `d` in line 6, `a2` and `B_2` in line 8, and `g`, `h`, and `i` in line 9.