For

Pass

```
In [7]: animalLookup = {
    'a': ['aardvark', 'antelope'],
    'b': ['bear'],
    'c': ['cat'],
    'd': ['dog'],
}

for letter, animals in animalLookup.items():
    pass
```

Continue

```
In [8]: for letter, animals in animalLookup.items():
    if len(animals) > 1:
        continue
    print(f'Only one animal! {animals[0]}')

Only one animal! bear
    Only one animal! cat
    Only one animal! dog
```

Break

```
In [9]: for letter, animals in animalLookup.items():
    if len(animals) > 1:
        print(f'Found {len(animals)} animals: {animals}')
        break
```

Found 2 animals: ['aardvark', 'antelope']

For / Else

```
In [10]: for number in range(2, 100):
              for factor in range(2, int(number ** 0.5) + 1):
                  if number % factor == 0:
                      break
             else:
                  print(f'{number} is prime!')
         2 is prime!
         3 is prime!
         5 is prime!
         7 is prime!
         11 is prime!
         13 is prime!
         17 is prime!
         19 is prime!
         23 is prime!
         29 is prime!
         31 is prime!
         37 is prime!
         41 is prime!
         43 is prime!
         47 is prime!
         53 is prime!
         59 is prime!
         61 is prime!
         67 is prime!
         71 is prime!
         73 is prime!
         79 is prime!
         83 is prime!
         89 is prime!
         97 is prime!
```

```
In [11]: for number in range(2, 100):
    found_factors = False
    for factor in range(2, int(number ** 0.5) + 1):
        if number % factor == 0:
            found_factor = True
    if not found_factors:
        print(f'{number} is prime!')
```

- 2 is prime!
- 3 is prime!
- 4 is prime!
- 5 is prime!
- 6 is prime!
- 7 is prime!
- 8 is prime!
- 9 is prime!
- 2 2 2 P. III.C.
- 10 is prime!
- 11 is prime!
- 12 is prime!
- 13 is prime!
- 14 is prime!
- 15 is prime!
- 16 is prime!
- 17 is prime!
- 18 is prime!
- 19 is prime!
- 20 is prime!
- 21 is prime!
- 22 is prime!
- 23 is prime!
- 24 is prime!
- 25 is prime!
- 26 is prime!
- 27 is prime!
- 28 is prime!
- 29 is prime!
- 30 is prime!
- 31 is prime!
- 32 is prime!
- 33 is prime!
- 34 is prime!
- 35 is prime!
- 36 is prime!
- 37 is prime!
- 38 is prime!
- 39 is prime!
- 40 is prime!
- 41 is prime!
- 42 is prime!
- 43 is prime!
- 44 is prime!
- 45 is prime!
- 46 is prime!
- 47 is prime!
- 48 is prime!
- 49 is prime!
- 50 is prime!
- 51 is prime!
- 52 is prime!
- 53 is prime!
- 54 is prime! 55 is prime!
- 56 is prime!
- 57 is prime!
- 58 is prime!

```
59 is prime!
60 is prime!
61 is prime!
62 is prime!
63 is prime!
64 is prime!
65 is prime!
66 is prime!
67 is prime!
68 is prime!
69 is prime!
70 is prime!
71 is prime!
72 is prime!
73 is prime!
74 is prime!
75 is prime!
76 is prime!
77 is prime!
78 is prime!
79 is prime!
80 is prime!
81 is prime!
82 is prime!
83 is prime!
84 is prime!
85 is prime!
86 is prime!
87 is prime!
88 is prime!
89 is prime!
90 is prime!
91 is prime!
92 is prime!
93 is prime!
94 is prime!
95 is prime!
96 is prime!
97 is prime!
98 is prime!
99 is prime!
```

In []: