2.3: VARIABLE NAMES AND KEYWORDS

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Programmers generally choose names for their variables that are meaningful and document what the variable is used for.

Variable names can be arbitrarily long. They can contain both letters and numbers, but they cannot start with a number. It is legal to use uppercase letters, but it is a good idea to begin variable names with a lowercase letter (you'll see why later).

The underscore character (`_`) can appear in a name. It is often used in names with multiple words, such as `my_name` or `airspeed_of_unladen_swallow` . Variable names can start with an underscore character, but we generally avoid doing this unless we are writing library code for others to use.

If you give a variable an illegal name, you get a syntax error:

```
>>> 76trombones = 'big parade'
SyntaxError: invalid syntax
>>> more@ = 1000000
SyntaxError: invalid syntax
>>> class = 'Advanced Theoretical Zymurgy'
SyntaxError: invalid syntax
```

`76trombones` is illegal because it begins with a number. `more@` is illegal because it contains an illegal character, `@` . But what's wrong with `class` ?

It turns out that `class` is one of Python's *keywords*. The interpreter uses keywords to recognize the structure of the program, and they cannot be used as variable names.

Python reserves 33 keywords:

```
and       del       from      None      True
as        elif      global    nonlocal  try
assert    else      if        not       while
break     except    import    or        with
class     False     in        pass      yield
continue  finally   is        raise
def       for       lambda    return
```

You might want to keep this list handy. If the interpreter complains about one of your variable names and you don't know why, see if it is on this list.