Python Typing Exercises

In this exercise, you'll take a simple [7-way rock paper scissors] game which was written without types. You'll see that the editor cannot help you with writing code or errors when it does not know the types.

Steps

Open the folder `rocks-game` and open `rpsgame.py`. Go through each **variable**, **function parameter**, and **function return value**. See if your editor can understand what they are or detect errors (for example, return a string where a number is expected or visa versa).

You will need to use nested types for certain containers, such as:

```
thing: dict[str, list[str]]
```

(that's not an actual example, but something to use as a hint, it's a dictionary like `{"key": ["val1", "val2"]}`)

Solutions

The solution (*a solution*) is in the `./solution` folder.

Motivation

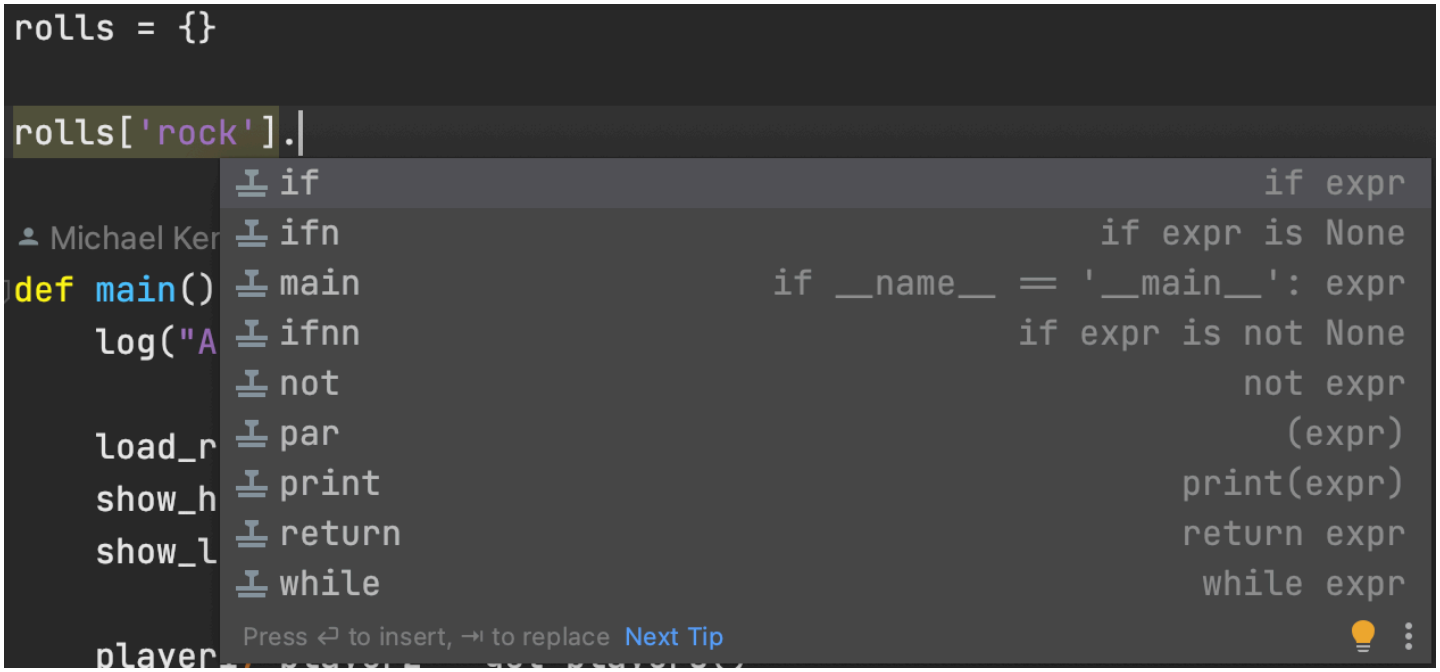
Here are some examples of the benefits:

Catching **invalid return types**:

```
def get_players() → tuple[int, str]:
    p1 = input("Player 1, what is your name? ")
    p2 = "Computer"

    return p1, p2
```

No autocomplete:



Now **with autocomplete**: