

INPUT AND OUTPUT

There will be situations where your program has to interact with the user. For example, you would want to take input from the user and then print some results back. We can achieve this using the `raw_input()` function and `print` statement respectively.

For output, we can also use the various methods of the `str` (string) class. For example, you can use the `rjust` method to get a string which is right justified to a specified width. See `help(str)` for more details.

Another common type of input/output is dealing with files. The ability to create, read and write files is essential to many programs and we will explore this aspect in this chapter.

Input from user

Save this program as `io_input.py`:

```
def reverse(text):  
  
    return text[::-1]
```

```
def is_palindrome(text):  
    return text == reverse(text)  
  
something = raw_input("Enter text: ")  
  
if is_palindrome(something):  
    print "Yes, it is a palindrome"  
else:  
    print "No, it is not a palindrome"
```

Output:

```
$ python io_input.py  
Enter text: sir  
No, it is not a palindrome  
  
$ python io_input.py  
Enter text: madam  
Yes, it is a palindrome  
  
$ python io_input.py  
Enter text: racecar
```

Yes, it is a palindrome

How It Works

We use the slicing feature to reverse the text. We've already seen how we can make slices from sequences using the `seq[a:b]` code starting from position `a` to position `b`. We can also provide a third argument that determines the *step* by which the slicing is done. The default step is `1` because of which it returns a continuous part of the text. Giving a negative step, i.e., `-1` will return the text in reverse.

The `raw_input()` function takes a string as argument and displays it to the user. Then it waits for the user to type something and press the return key. Once the user has entered and pressed the return key, the `raw_input()` function will then return that text the user has entered.

We take that text and reverse it. If the original text and reversed text are equal, then the text is a palindrome.

Source: <http://www.swaroopch.com/notes/python/>