Assignment #14

Dictionaries

This assignment uses a Python dictionary to implement a regular language-to-language dictionary. For example, a (very short) English-to-Irish dictionary could be implemented in Python as:

```
{ "sun" : "grian", "water" : "uisce", "horse" : "capall", "tree" : "crann" }
```

Write definitions for each of the following Python functions, and for each function, include a clear and concise comment to describe its purpose.

1. `ReadDictionary( filename )`
   Read the file '`filename`', which should contain two words per line, and return a dictionary with the first words as keys and the corresponding second words as values; if the file cannot be read, issue an error message and return the empty dictionary

2. `PrintDictionary( d )`
   Output the dictionary '`d`', sorted alphabetically by keys, with one key-value pair per line, formatted as left-justified columns of width 10.
   For example, the above dictionary should be output as:

```
horse      : capall
sun        : grian
tree       : crann
water      : uisce
```

3. `Inverse( d )`
   A copy of the dictionary '`d`' but with keys and values interchanged. Assume that all values in '`d`' are distinct.
   For example, calling '`Inverse`' on the above English-to-Irish dictionary should produce the equivalent Irish-to-English dictionary:

```
{ "uisce" : "water", "crann" : "tree", "grian" : "sun", "capall" : "horse" }
```

Program Submission:

Store the function definitions in a file named '`a14.py`', and turn it in for grading by typing:

```
submit-cs1117 a14.py
```

Due Date: Fri Jan 29, 10:30am