

# CS160 Computer Science I

## Lab 10

### Objective:

Work with dictionaries  
Work with strings  
Work with files

### Assignment:

This program will read a file of English words and their Spanish translation. It then asks the user for an English word. If it exists in your dictionary the Spanish translation is displayed. If the English word does not exist in the dictionary the program states that the word does not exist in its list of words.

### Specifics

Create a text file, with one English word and a Spanish word per line, separated by a colon. You can create the language file using a text editor, you do not need to write a program to create this file. An example of the file might be:

```
one:uno  
two:dos  
three:tres  
four:cuatro  
five:cinco  
six:seis  
seven:siete  
eight:ocho  
nine:nueve  
ten:diez
```

After reading the text file, using it to fill up a dictionary, ask the user for an English word. If the word exists, print out the Spanish version. If the word does not exist state that the word is not in your list. Continue this process of asking for a word until the user does not enter a word (just pressed Enter).

As you might have noticed, there is nothing in the program that limits this Spanish words. This program can be written to work with any translation, so feel free to make it be French, or German or any other language where you can come up with a list of translated words. You also are not limited to 10 words, that is just the list I came up with for the example. The number of key/values pairs that you have in your dictionary is basically limited by the memory in your computer.

### Hints

You will need to determine if the key (the English word) exists in the dictionary. Use the `in` operator with the dictionary, or the `get()` method. Either can be used to avoid crashing the program, which happens if you attempt to use a key that does not exist.

### **An example of running the program might be:**

Enter the translation file name: oneToTen.txt  
<<the file is read and the information is entered into the dictionary>>

Enter an English word to receive the Spanish translation.  
Press ENTER to quit.

Enter an English word: one  
The Spanish translation is uno

Enter an English word: ten  
The Spanish word is diez

Enter an English word: 5  
I don't have that word in my list.

Enter an English word: three  
The Spanish word is tres

Enter an English word: <<user pressed ENTER>>

<<program ends>>

### **Challenges – no extra points, just extra knowledge**

Make it work such that the words do not need to be case specific

If the word entered is not an English word, check and see if it is a word in your “other” language, Spanish in this example. If it is, display the English translation. An example of that might be:

Enter an English word: quatro  
That is a Spanish word. Its English translation is four