

Guide: How to make a language.

Introduction

This guide will explain how to make a language for the search engine.

This doesn't have to be an existing language. You can make a language like Klingon (Star Trek), Vogon (Hitchhiker's Guide to the Galaxy), or a new language we can use for Peter's world domination plan, "Peter-Language" for example. (... I really didn't think this through.)

Anyway, let's begin.

Make a Class/Language

An uncovered mechanism in CS101, are the 'classes'. [1]

I used those to make the languages as extendable as possible. To make a new language, simply copy this code to a new file (let's say 'dummy.py') in the map './src/Languages/' and follow the instructions below the code.

```
# Start Code =====  
  
from language import Language  
  
class Dummy_Class(Language):          # (1)  
  
    def __init__(self):  
        Language.__init__(self, dummy_name)    # (2)  
        f = open(dummy_file_path)              # (3)  
        self.generate_table(f.read())  
        f.close()  
  
# End Code =====
```

(1) Replace 'Dummy_Class' with an appropriate class name. This might be the name of the language.

(2) Replace 'dummy_name' by the name of the language (type = string).

(3) Replace 'dummy_file_path' by the relative file path of the file you want to use to generate the language (type = string). For example, if you want to use the file 'dummy.txt' in the ./res folder, the relative path from the file with the class to the resource file will be "../res/dummy.txt".

Read the next paragraph on how to make a resource file for your language.

[1]: <http://docs.python.org/tutorial/classes.html>

Resource Files:

To make a new resource file, you need to have a large text with a lot of words in the language you want. I used the script of the first act of Romeo and Juliet for the languages I've made so far.

(I just inserted the English script in the Google translator. There are some grammatical errors in them, but it should do the job.)

Add a language to the Search Engine:

To add the language to the engine, add this line to the import sequence in the file './src/Language/languages.py':

```
from dummy import Dummy_Class
```

('dummy' is the python file-name of your self-made class without the extension.)

The last thing you need to do, is adding your language to the list of languages at line 26 in 'languages.py'. For example: '[English(), ..., Portuguese(), Dummy_Class()]'

Play with it!:

Use 'main.py' and 'cache.py' to play with your language. Have fun.

Notes:

- For those who are more interested, can look deeper into the code and can also play with the 'shrink_table'-function in 'languages.py' at line 30.
- Be aware that in this case, a language is only defined by its syntax and not by its grammatical structure.
So you can't define the language that Yoda speaks. It will be plain English.