

Baby Name Generator using a simple Markov Chain

This is a python code for generating baby names (boys and girls) using Hidden Markov Model (HMM). There are two text files "namesBoys.txt and namesGirls.txt that contain names for boys and girls. The program uses these two files to find patterns and generate new names based on the length of the name that the user enters

It's basically just one file currently that's about 40 lines long. There is only one feature available from the command line currently: generate a single random full name. There's a few more features if importing as a Python package: generate random last name or generate random first name (with or without specifying gender), generate random full name (also without or without gender). The random name picker relies on the cumulative frequencies listed in the included Census data files. Here's the steps that are taken: 1. A random floating point number is chosen between 0.0 and 90.0 2. Name file lines are iterated through until a cumulative frequency is found that is less than the randomly generated number 3. The name on that line is chosen and returned (or printed out)

Below is the code :

```
__author__ = 'himanabdollahpouri'

import NameGenerator as ng
import InputValidator as iv

gender = raw_input("Do you want boys names or girls names? b for boys and g for girls
")

# Validating the entered gender in order to only accept 'g' or 'b'
while iv.validateGender(gender):
    gender = raw_input("Wrong input! Please either enter b or g")

minL = input('Enter minimum Length for the names: ')
while iv.validateMinimumLength(minL):
    minL = input('Min length should be at least 1. Enter minimum Length for the names:
')

maxL = input('Enter maximum Length for the names: ')
while iv.validateMaximumLength(maxL):
    maxL = input('Too big! Enter smaller length! less than 20! Enter maximum Length
for the names: ')

order = input('Enter the markove model order: ')
while iv.validateOrder(order):
    order = input('Please set the order higher than zero. Enter the markove model
```

```
order: ')\n\ncount = input('how many names you want? ')\nwhile iv.validateCount(count):\n    count = input('Are you kidding me?! I am too tired to generate all of these names!\nselect a smaller number. how many names you want? ')\n\n# Calling the generateNewNames of NameGenerator\nng.generateNewNames(minL,maxL,order,count,str(gender))
```

Here's how you use it from the command line:

```
$ names\nKara Lopes
```

Here's how you use it as a Python package:

```
>>> import names\n>>> names.get_full_name()\nu'Patricia Halford'\n>>> names.get_full_name(gender='male')\nu'Patrick Keating'\n>>> names.get_first_name()\n'Bernard'\n>>> names.get_first_name(gender='female')\n'Christina'\n>>> names.get_last_name()\n'Szczepanek'
```

Here is the output:

```
Run: main main
C:\Python27\python.exe C:/Users/AnkitaW/Downloads/Baby-name-generator-master/main.py
Do you want boys names or girls names? b for boys and g for girls g
Enter minimum Length for the names: 5
Enter maximum Length for the names: 8
Enter the markove model order: 6
how many names you want? 6
*****
*****
Here are generated names. Hope you like them! :)
shelby
kamora
cassidy
lorena
dayanara
meghan

Process finished with exit code 0
```