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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| hello  helllo  helo  hello  hello  helo  hello  hello  hello  ello  elo  hello  hello  helo  heloo  hello  hello  ello  heloo  heloo  hello  ello  hello  hello  ello  heloo  hello  helloo  hello  helllo  hello  hello  ello  heloo  hello  ello  heloo  helloo  hello  helllo  hello  hello  Hàng 43: rỗng. end of string: eos | |  | | --- | | 98 | | 39 | | 4 | | 1. 93 – e | | 22 – h | | 12 – h | | 22- h | | 6 – h | | 80 – h | | 68 – h | | 1. 52 - h | | 73 – h | | 66 – h | | 15 - h | | 35 – h | | 43 – h | | 97 – e | | 70 – h | | 43 - h | | 1. 57 - h | | 69 – h | | 85 – e | | 15 – h | | 97 – e | | 57 – h | | 63 – h | | 10 – h | | 24 – h | | 32 – h | | 100 – eos | | 47 – h | | 9 – h | | 66 – h | | 99 - e | |

h: 35/43 = 81.4% (đếm tay, có tổng cộng 35 mẫu chữ h đầu tiên/tổng 43 mẫu)

e: 7/43 = 16.2%

l: 0

o: 0

eos: 1/43 = 2.32%

---

random từ 1-100, nếu rời vào 0-81 là h, 82 -> 98 là e, 99-100 là eos

→

E

p(?|e) = Nếu biết ký tự đầu tiên là chữ e, cho biết xác suất

char[0] = e

char[1]

h: 0

e: 0

l: 7/7

o: 0

eos: 0

---

el

p(?|”el”)

h: 0

e: 0

l: 6/7

o: 1/7

eos: 0

---

ell

p(?|”ell”)

h: 0

e: 0

l: 0

o: 6/6

eos: 0

===

Lần 1: 93 22 12 22 6

e

el

ell p( l | el) = 85.71%

ello p( o | ell) = 100%

ello<eos> p(<eos> | ello) = 100%

**Output: ello**

Lần 2: 52 73 66 15 35 43

h p( h | null) = 83.33%

e p( e | h) = 100%

l p( l | he) = 100%

l p( l | hel) = 61.9% (26/42)

o p(o | hell) = 88.46% (23/26)

<eos> p(<eos> | hello) = 91.3% (21/23)

**Output: hello**

Lần 3: 57 69 85 15 97 57

h p( h | null) = 83.33%

e

l

l p( l | hel) = 61.9%

l p( l | hell) = 11.54% (3/26) do 97 > 88.46

o p( o | helll) = 100% (3/3)

<eos> p(<eos> | helllo) = 100%

**Output: helllo**

-> p(n? | n-1 - gram)

“o”

h: 0%

e: 0%

l: 0%

o: 0%