

## Lm + perplexity score

Lm\_1 train perplexity= 7.4742  
Lm\_1 test perplexity= 237.4017  
lm\_2 train perplexity= 1.47930  
lm\_2 test perplexity= 4.4854  
lm\_3 train perplexity= 6.8926444  
lm\_3 test perplexity= 135.9790  
lm\_4 train perplexity= 1.45187  
lm\_4 test perplexity= 6.2937

note:-

- Lm\_1= 4 gram + kneser\_ney  
smoothing +( Ulysses - James Joyce)
- Lm\_2= 4 gram + written\_bell  
smoothing + (Ulysses - James Joyce)

- $lm\_3 = 4 \text{ gram} + \text{kneser\_ney smoothing} + (\text{Pride and Prejudice} - \text{Jane Austen})$
- $lm\_4 = 4 \text{ gram} + \text{written\_bell smoothing} + (\text{Pride and Prejudice} - \text{Jane Austen})$