Grammatically Correct Gibberish

Ramin Ebrahimi
Peter Kotik
Shrey Valia
Jordan Zalaha

Our Goals

Randomly generate grammatically correct sentences

    Simple sentences

Output the sentences one word at a time

    Done through keyboard mashing.

Compare the differences and similarities of each implementation

Link to the video: https://youtu.be/7fchIJHu_R0

Process

1. Design algorithm

   a. Design a CFG for the grammar

   b. Can be imperative and functional

2. Build a word base

   a. Create maps of different types of words

   b. Populate the word types with a set of words

3. Get Codin'

   a. Python, Java, Haskell.

Peter's Pick: "There is that airport pollution that is being relatively environmental."

```
/*NEW - Sentence Variable - This is where we start
*/
Sentence    →    Subject+Verb+[Object] | PlSubject+PlVerb+[Object]
                 | ExSubject+Verb+[Object] | PlExSubject+PlVerb+[Object]
                 // brackets indicate conditionality

/*Object Fragment*/
Object      →    Subject | PlSubject

/*NEW - Singular Verb Fragment*/
Verb        →    TVerb | IVerb | LVerb | hverb+TVerb | hverb+IVerb

/*NEW - Plural Verb Fragment*/
PlVerb      →    PlTVerb | PlIVerb | PlLverb | phverb+PlTVerb | phverb+PlIVerb
```

Python

Pros of using this language:

- **Efficient and compact**

- **High level syntax**

- **Easy to input files**

- **Good readability**

Shrey's Selection: "Failures can initially emerge without such actually full whole law analyst."

Cons of using this language:

- **Hard to use global variables**

- **New to Python**

- **Hard to limit what shows up to stdout.**

Java

Pros of using this language:

- **High Level**

- **Easy to debug**

- **OOP**

- **Simple input**

Cons of using this language:

- **Output**

- **File size**

- **Repetitive code**

Ramin's Rhetoric: "Here are likely exam law that tell two never personal dad potatoes."

Haskell

Pros of using this language:

- **Concise**

- **Fun**

- **No null exceptions**

Cons of using this language:

- **IO Monad**

- **Scope Issues**

  - **No global variables**

Jordan's Jumble: "There is his hopefully good legal ladder that necessarily makes against hopefully whole women."