

Basic-interpreter

Author: Kendrick Zhou

ID: 519021911217

SJTU/SE2019/DS/Proj1

Intro

This is a simple Basic-interpreter. You can run your Basic code by this!

Manual

1. Browsers

- Code: Contains your code.
- Result: Contains run results, such as the output in PRINT expression.
- LAST: **Language And Syntax Trees**. Your code is parsed into a syntax tree here.
- Input: Input a **Expression** or **Command** here, and press **Enter** when you finish inputing.

Your code should be typed in one of the following ways:

- **LineNumber + Statement:**

```
10 LET a = 10
```

- **Command**

You can get details about command in Part 3.

- **Statement**

Specifically, you can input a statement without linenumber. But it only supports **{LET, INPUT, PRINT}**.

It may help you to debug more easily.

2. Button

- LOAD: You can load a file to be executed through LOAD button.
 - Attention:** The code in file **MUST** be in the form of **LineNumber + Statement**.
- RUN: Starts program execution beginning at the lowest-numbered line, Execution ends when the program hits the END statement or continues past the last statement in the program. By the way, **The syntax tree** will be displayed.
- CLEAR: Clears the content of all three windows, and your **Context** will also be cleared.

Attention: You can **ONLY** clear the Context by clicking **CLEAR** button.

3. Command

- LOAD: Just equal to press LOAD button.
- RUN: Just equal to press RUN button.
- CLEAR: Just equal to press CLEAR button.
- HELP: Get help information.
- QUIT: Exit the interpreter.

4. Error

When you RUN a wrong program, the interpreter will behave as follows:

- The interpreter will stop on the **First Error Line**.
- An Error message window will pop up, you can get some **Error Information** by reading this.
- The interpreter will still try to build the syntax tree. If the interpreter encounters an instruction with a syntax error, it will print (LineNumber + Error).

10 Error

- **Logical error** do not affect the construction of the syntax tree.

Get more details by reading [Basic-doc.pdf](#)

Hope you can get started really soon!

Kendrick

2021/4/11