Build Your Own Lisp

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Write an abstract

Contents

Prompt

1a   ⟨*Print version and exit information.* 1a⟩≡
```
puts("Lispy v0.0.1");
puts("Press ctrl-c to exit\n");
```
This code is used in chunk 2b.

Declare a buffer for user input of size 2048.

1b   ⟨*Declare a buffer for user input.* 1b⟩≡
```
#define INPUT_SIZE 2048

static char input[INPUT_SIZE];
```
Defines:
   input, used in chunks 1d and 2a.
This code is used in chunk 1c.

1c   ⟨*prompt.c* 1c⟩≡
   ⟨*Include the standard I/O functions.* 2c⟩

   ⟨*Declare a buffer for user input.* 1b⟩

This definition is continued in chunks 1 and 2.
Root chunk (not used in this document).

Given a `prompt` string, `read` user input.

1d   ⟨*prompt.c* 1c⟩+≡
```
char *read(const char *prompt)
{
  fputs(prompt, stdout);
  return fgets(input, INPUT_SIZE, stdin);
}
```
Defines:
   read, used in chunks 1d and 2b.
Uses input 1b.

2a   ⟨*prompt.c* 1c⟩+≡
```c
void eval()
{
  printf("< %s", input);
}
```
Uses input 1b.

2b   ⟨*prompt.c* 1c⟩+≡
```c
int main(int argc, char *argv[])
{
  ⟨Print version and exit information. 1a⟩

  while (read("> ") ≠ NULL) {
    eval();
  }


  return 0;
}
```
Uses read 1d.

Common Headers

2c   ⟨*Include the standard I/O functions.* 2c⟩≡
```c
#include <stdio.h>
```
This code is used in chunk 1c.

Chunks

⟨*Declare a buffer for user input.* 1b⟩   <u>1b</u>, 1c
⟨*Include the standard I/O functions.* 2c⟩   1c, <u>2c</u>
⟨*Print version and exit information.* 1a⟩   <u>1a</u>, 2b
⟨*prompt.c* 1c⟩   <u>1c</u>, <u>1d</u>, <u>2a</u>, <u>2b</u>

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Todo list

To-Do