3/7/2018

Begin by Initializing the Stack

Now we can rewrite our code
(**new parts in blue**).

```
int main ()
{
    char buf[200];
    struct stack_t stack;


    init_stack (&stack);
```

Read from Keyboard Until Stack Full or Input Ends

Check to avoid **fgets** with a full stack.

```
while (!stack_full (&stack) &&
    NULL != fgets
        (buf, 200, stdin)) {
    if (!stack_push (&stack, buf)) {
        break;
    }
}
```

If push fails, stop reading input.

Print a Line, Pop, and Repeat Until Stack is Empty

Stack not empty?

```
while (!stack_empty (&stack)) {
    if (!stack_pop (&stack, buf,
                    200)) {
        break;
    }
    printf ("%s", buf);
}
return 0;
} // end of main
```

If stack pop fails, give up.

Print one line (includes LF).