

top Field Indicates Which Elements Are Meaningful

```
struct stack_t {
    // 500 lines of up to 200 chars
    char data[500][200];
    int32_t top;
};
```

- top** holds index of data element on **top of the stack**, so
- when stack is **empty**, **top** is **500**, and
 - when stack is **full**, **top** is **0**.

The fgets Function Reads a Line from a Stream

- To read lines from the keyboard,
- we will **use an input routine**
 - **from C's standard library**:

```
char* fgets (char* s, int size,
             FILE* stream);
```

The **fgets** function

- **reads** up to (**size - 1**) characters or **until the end of a line** (whichever comes first)
- **into array s** and
- **returns s on success, or NULL on failure.**

Use fgets to Read from the Keyboard

```
char* fgets (char* s, int size,
             FILE* stream);
```

For now,*

- ignore the **stream** argument, for which
- we use **stdin** to read from the keyboard.

*We will study I/O in a few weeks.

The strcpy Function Copies a String

We will also use a **standard C library function that copies strings**:

```
char* strcpy (char* dest,
              const char* src);
```

strcpy

- **copies the string from src**
- **into the array at dest.**
- The destination must have enough space!
(No checking can be done by the function.)