

Princeton University

COS 217: Introduction to Programming Systems

C Program Structure (Version 1)

In file testmystring.c:

```
/*-----*/
/* testmystring.c */
/*-----*/

#include <stdio.h>
#include <stddef.h>

size_t mystrlen(const char *pcString)
/* Return the length of string pcString. */
{
    const char *pcStringEnd = pcString;
    while (*pcStringEnd)
        ++pcStringEnd;
    return pcStringEnd - pcString;
}

/* Define other functions here. */

int main(int argc, char *argv[])
/* Test my string functions. */
{
    printf("%d\n", mystrlen("Hello"));
    return 0;
}
```

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C Program Structure (Version 2)

In file testmystring.c:

```
/*-----*/
/* testmystring.c */
/*-----*/

#include <stdio.h>
#include <stddef.h>

size_t mystrlen(const char *pcString);

/* Declare other functions here. */

int main(int argc, char *argv[])
/* Test my string functions */
{
    printf("%d\n", mystrlen("Hello"));
    return 0;
}

size_t mystrlen(const char *pcString)
/* Return the length of string pcString. */
{
    const char *pcStringEnd = pcString;
    while (*pcStringEnd)
        ++pcStringEnd;
    return pcStringEnd - pcString;
}

/* Define other functions here. */
```

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C Program Structure (Version 3)

In file mystring.h:

```
/*-----*/
/* mystring.h */
/*-----*/

#ifndef MYSTRING_INCLUDED
#define MYSTRING_INCLUDED

#include <stddef.h>

size_t mystrlen(const char *pcString);
/* Return the length of string pcString. */

/* Declare other functions here. */

#endif
```

In file mystring.c:

```
/*-----*/
/* mystring.c */
/*-----*/

#include "mystring.h"

size_t mystrlen(const char *pcString)
/* Return the length of string pcString. */
{
    const char *pcStringEnd = pcString;
    while (*pcStringEnd)
        ++pcStringEnd;
    return pcStringEnd - pcString;
}

/* Define other functions here. */
```

In file testmystring.c:

```
/*-----*/
/* testmystring.c */
/*-----*/

#include "mystring.h"
#include <stdio.h>

int main(int argc, char *argv[])
/* Test my string functions. */
{
    printf("%d\n", mystrlen("Hello"));
    return 0;
}
```