Princeton University
COS 217: Introduction to Programming Systems
C Program Structure

Version 1

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 != '\0')
      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;
}
```

Version 2

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 != '\0')
      pcStringEnd++;
   return pcStringEnd - pcString;
}


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

Version 3

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
```

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 != '\0')
      pcStringEnd++;
   return pcStringEnd - pcString;
}

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

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;
}
```