

# Coding Standard for Systems Programming

```
/**
 * Authors      : Michael Chua
 *              : William Yu
 * Class        : CS 159.3 A
 * Description: a program that sorts data
 **/
```

```
#include <stdio.h>
#include <stdlib.h>
```

```
typedef struct {
  int key;
  int data;
} Record;
```

*-tab-*

← Capitalize structure names

```
/**
 * Arguments    : two numeric constants
 * Return value: difference of the numeric constants
 * Global variables used: none
 **/
```

```
int compare (const void *a, const void *b)
{
    return (((Record *)a)->key) - (((Record *)b)->key));
} /* compare() */
```

← Place a comment after the last curly brace

```
int main (int argc, char *argv[])
{
```

← Place opening curly brace of a function in a new line

```
    Record temp[10];
    int loop;
```

```
    srand (48758134);
```

```
    printf ("Unsorted Version:\n");
    for (loop =0; loop < 10; loop++) {
        temp[loop].key = rand();
        printf ("%d\n", temp[loop].key);
    }
```

← Place opening curly brace on the same line as the complex statement

```
    /* this is a single line comment */
    qsort (temp, 10, sizeof (Record), compare);
```

```
    printf ("Sorted Version:\n");
    for (loop =0; loop < 10; loop++) {
        printf ("%d\n", temp[loop].key);
    }
```

← Put a space before a parenthesis of a function call

```
} /* main() */
```