

/* File copy program. Error checking and reporting is minimal. */

```
#include <sys/types.h>                /* include necessary header files */
#include <fcntl.h>
#include <stdlib.h>
#include <unistd.h>
```

```
int main(int argc, char *argv[]);     /* ANSI prototype */

#define BUF_SIZE 4096                 /* use a buffer size of 4096 bytes */
#define OUTPUT_MODE 0700             /* protection bits for output file */
```

```
int main(int argc, char *argv[])
{
    int in_fd, out_fd, rd_count, wt_count;
    char buffer[BUF_SIZE];

    if (argc != 3) exit(1);           /* syntax error if argc is not 3 */

    /* Open the input file and create the output file */
    in_fd = open(argv[1], O_RDONLY);  /* open the source file */
    if (in_fd < 0) exit(2);           /* if it cannot be opened, exit */
    out_fd = creat(argv[2], OUTPUT_MODE); /* create the destination file */
    if (out_fd < 0) exit(3);         /* if it cannot be created, exit */

    /* Copy loop */
    while (TRUE) {
        rd_count = read(in_fd, buffer, BUF_SIZE); /* read a block of data */
        if (rd_count <= 0) break;       /* if end of file or error, exit loop */
        wt_count = write(out_fd, buffer, rd_count); /* write data */
        if (wt_count <= 0) exit(4);     /* wt_count <= 0 is an error */
    }

    /* Close the files */
    close(in_fd);
    close(out_fd);
    if (rd_count == 0)                 /* no error on last read */
        exit(0);
    else
        exit(5);                       /* error on last read */
}
```