Recently a student asked:
> i’m trying to use realloc in my program and i can’t seem to get it to
> work. i’m trying to expand an ever growing array of pointer to char
>>
> char** out;
> out=(char**)realloc(out,1);
>
I haven’t ever used realloc (before just now), but essentially what you have worked for me:
(Notice that I didn’t have to copy in the old locations.)

runner% cat realloct.c
#include <stdio.h>
#include <stdlib.h>

void main(void)
{
    char **out;
    char **p;
    out = (char **) malloc(4*sizeof(char*));
    out[0] = "Now";
    out[1] = "is";
    out[2] = "the time";
    out[3] = NULL;
    p = out;
    while (*p != NULL)
        printf("%s
", *(p++));
    out = (char **) realloc(out, 7*sizeof(char *));
    out[3] = "for all good";
    out[4] = "to come to the aid";
    out[5] = "of their party";
    out[6] = NULL;
    p = out;
    while (*p != NULL)
        printf("%s
", *(p++));
}

runner% lint -m -u realloct.c

function returns value which is always ignored
    printf

runner% cc -o realloct realloct.c

runner% realloct

Now
is
the time
Now
is
the time
for all good
to come to the aid
of their party