

**Coding Errors:**

- 1) In line 1 assert was used incorrectly, halting the program when malloc succeeds and not vice versa as required.
- 2) In line 4 function Sizeof was not used inside the malloc which is needed .
- 3) In line 5 assert was used to detect memory allocation which is incorrect way of using assert, Malloc failure should be checked with if.
- 4) In line 6 instead of < that should be used, was used <= inside of the for loop condition which causes the program to go beyond the arrays boundaries.
- 5) switching The lines 7 and 8 can fix this error, This placement causes the program to skip over the first "len" char places and causes the program to go beyond the allocated space for the string.
- 6) using another temporary can fix this error, The pointer out is moved in every iteration of the for loop without being returned to the start of the needed string, which causes the function to return pointer to an empty string.

**Convention Errors:**

- 1) In line 3 the variable was named with capital letters which is wrong according to the convention 2.1.
- 2) In line 5 Space indentation was not used in the for loop.

```
char* stringDuplicator(char*s, int times)
{
    assert(!s);
    assert(times > 0);
    int len = strlen(s);
    char* out = malloc(len*times*sizeof(char));
    if(!out)
    {
        return NULL;
    }
    for(int block=0; block<times; block++)
    {
        for(index=0; index<len; index++)
        {
            out[block*len + index] = s[index]; //here we copy the string block by
                                                //block
        }
        out[block*times +index] = '\\0';
    }
    return out;
}
```