

מת"מ

HW 1DRY

סעיף 2.1

```
#include "stdlib.h"
#include "string.h"
#include "assert.h" 1) The library name have to be between <>
char* stringDuplicator(char* s, int times){
    assert(!s); 1) We want s!= ten we have to write assert(s)
    assert(times > 0);
    int LEN = strlen(s); 2) A variable name have to be written in small case (len)
    char* out = malloc(LEN*times); 2) We have to add a place for the null character for the end
                                   of the string
    assert(out);
    3) We have to create a pointer to the beginning of the string
    for (int i=0; i<=times; i++){ 4) the condition should be i<times instead of i<=times
                                   Otherwise, it will run one extra iteration and cause a buffer overflow.
        out = out + LEN;
        strcpy(out,s); 5) We first have to copy and then do out+=len
    }
    return out; 6) We have to return the beginning of the string but out is pointing on the end
}
```

```
#include <stdlib.h>
#include <string.h>
#include <assert.h>

char* stringDuplicator(char* s, int times){
    assert(s);
    assert(times > 0);
    int len = strlen(s);
    char* out = malloc((len*times)+1);
    assert(out);
    char* start = out;
    for (int i=0; i<times; i++){
        strcpy(out,s);
        out += len;
    }
    return start;
}
```