```
// ----------------------------------------------------------------------------
// bufferoverflow.c
//
// cmdline:
//          gcc bufferoverflow.c -o bufferoverflow.exe
//          bufferoverflow.exe
//
//
// in linux:
//               gcc -fno-stack-protector -z execstack -no-pie bufferoverflow.c -o bufferoverflow -m32
//         ./bufferoverflow
//
//
// ----------------------------------------------------------------------------
#include <stdio.h>
#include <stdlib.h>
#include <string.h>

void Hacked(void){
      int nbytes = 80;
      char *name = malloc(nbytes+1);
      printf("\n\n\n");
      printf("*******************************************************\n*\n");
      printf("*  Please enter your name and student ID\n");
      printf("*  Maximun %i characters\n", nbytes);
      printf("*\n*\n*  ");
      getline(&name, &nbytes ,stdin);
      printf("*\n*\n*");
      printf("*******************************************************\n*\n");
      printf("*\n*\t\tBuffer Overflow Attack\n");
      printf("*\t\t----------------------\n*\n");
      printf("*  %s",name);
      printf("*\n");
      printf("*  You have sucessfully completed this task\n");
      printf("*\n*\n");
      printf("*  Function Hacked at\t0x00%x\n",&Hacked);
      printf("*\n");
      printf("*  Stack contents\t0x%p --> Return 
address\n*\t\t\t0x%p\n*\t\t\t0x%p\n*\t\t\t0x%p\n*\t\t\t0x%p\n");
      printf("*\n*******************************************************\n\n");
}

void displayStack(const char input[]){
      char buf[8];
      printf("--------------------------------------\n");
      printf("Before attack stack 
looks\n\t\t\t0x%p\n\t\t\t0x%p\n\t\t\t0x%p\n\t\t\t0x%p\n\t\t\t0x%p\n\t\t\t0x%p\n\t\t\t0x%p\n\t\t\t0x%p\n\t\t\t0
x%p\n\t\t\t0x%p\n\t\t\t0x%p\n");
      strcpy(buf, input);
      printf("\nBuffer \n\t\t\t%s\n\n", buf);
      printf("After attack stack 
looks\n\t\t\t0x%p\n\t\t\t0x%p\n\t\t\t0x%p\n\t\t\t0x%p\n\t\t\t0x%p\n\t\t\t0x%p\n\t\t\t0x%p\n\t\t\t0x%p\n\t\t\t0
x%p\n\t\t\t0x%p\n\t\t\t0x%p\n");
      printf("--------------------------------------\n");
}

int main(int argc, char* argv[]){
      int tempVar=0;
      //Making life easie
      printf("There is a buffer overflow weakness in this function\n");
      printf("You are required to call the function at address 0x%x\n", &Hacked);
      if (argc != 2) {
            printf("Please supply a string as your attack argument!\n");
            return -1;
      }
      displayStack(argv[1]);
      return 0;
}
```