

# Department of Computer Science and Engineering

## Indian Institute of Technology, Kharagpur

Compiler Laboratory: CS39003  
3rd year CSE, 5th semester

Assignment - 2: Creating Library  
Assign Date: August 02, 2017

Marks: 50  
Submit Date: 23:55, August 08, 2017

1. Write a C program consisting of the following functions to create a library. You cannot use any standard library function.
  - **int printStr(char \*)** - prints a string of characters. The parameter is terminated by '\0'. The return value is the number of characters printed.
  - **int readInt(int \*n)** - reads a signed integer in '%d' format. Caller get the value through the pointer parameter. The return value is OK (for success) or ERR (on failure).
  - **int printInt(int n)** - prints the signed integer (n) with left-alignment. Printing sign for a negative number is mandatory while for a positive number it is not required. On success, function will return the number of characters printed and on failure it will return ERR.
  - **int readFlt(float \*f)** - reads a floating point number in '%f' format e.g. -123.456. Caller get the value through the pointer parameter. The return value is ERR or OK.
  - **int printFlt(float f)** - prints the floating point number (f) with left-alignment. Printing sign for a negative number is mandatory while for a positive number it is not required. However, decimal point should be printed to differentiate it from the integer number. Returns the number of characters printed (on success) or ERR (on failure).

The header file **myl.h** is as follows:

```
#ifndef _MYL_H
#define _MYL_H
#define ERR 1
#define OK 0
int printStr(char *);
int printInt(int);
int readInt(int *);
int readFlt(float *);
int printFlt(float);
#endif
```

2. Name of your .c file should be **ass2\_roll.c**. Only header file you include is supplied **#include "myl.h"**. It should not contain the function **main()**. Write your **main()** function in a separate file. Use *Makefile* to test your library. Upload your *Makefile* and **ass2\_roll.c** in the

moodle server.

**Marking scheme:** *Each functions will carry equal weight. There will be a penalty of 10 marks if Makefile is not uploaded.*