

# Assignment 12: File System Implementation

## What you will learn:

Some issues in file system design and implementation.

## Statement

Implement a file system on top of a file of 100KB called "xyzFS". (replace xyz by your login).

You have to develop a library of following functions.

- filehandler myfopen("filename"); - opens for read,write
- int myfread (void \*out, int howmanybytes, filehandler fh); --> out is expected to be preallocated
- int myfwrite (void \*in, int howmanybytes, filehandler fh); --> in is input buffer
- int myfseek (int pos, filehandler fh); --> current pointer placed at pos
- void myfclose (filehandler fh);

copy these 5 functions into a .h file, and develop a .c implementation of them.

Assume that there are no subdirectories.

Write a xyzFSformat.c program that creates your file system of 100KB size and formats it.

Test your file system library by using the calls in a separate test program.

The file system stays persistent.

You should be able test this through many invocations of such test programs.

## What to submit

your format utility + your C library for the FS + 3 testfiles