Lab Assignment 4: Print Metadata of a File in xv6 System

Task:Write user-level program for xv6 that creates a file of a given size and prints disk block numbers and i-node number and its contents of the file created

Implement a user-level program in C for xv6 that takes fileName and fileSize as arguments, creates a file with that name if it does not exist in the filesystem (by allocating necessary disk blocks and writing your rollNo in all the disk blocks) and prints out i-node number, its contents, and disk block numbers that get allocated for it by the file system in xv6.

Hint: Check fs.c and bio.c in the kernel folder of xv6 and go through bwrite(), bmap(), etc functions. Further, check the references given below.

Deliverables:

- **Submit a report with your solution methodology and screenshots of outputs. Also, answer the questions asked above.**
- **Submit the source codes of files written/modified with proper documentation.**

Zip all the files and name it as LA4-<rollno>.zip. Then, upload it on the Google Classroom.

Due by 11:59 PM today. Late submissions attract a penalty of 25% per day!

References:

- https://pdos.csail.mit.edu/6.828/2023/labs/fs.html
- https://pdos.csail.mit.edu/6.828/2023/lec/l-fs1.pdf