Congratulations on receiving our Capital One Technical Assessment Challenge! We're so excited to see your technical skills to the test. If you have any questions about the challenge, please reach out to the Campus Recruiter.

File System Manager

You have to design a simple file system manager to manage allocation for storing, retrieving and deleting files on the storage device.

Storage devices (e.g. hard drive, SSD drive, flash drive) have capacity/size of X (MB, GB) divided in blocks of Y (KB). You can only write or read a whole block. For example, if the hard disk has a size of 1 MB and block size of 1KB, it will have 1024 blocks total and a file that's 1200 bytes will take 2 blocks.

You have to design a file system manager that will enable you to save (given fileID and size in bytes), delete file (given fileID) and read file (given fileID). Save will return a list of blocks that OS can use to store the file to, delete will have to mark blocks free and read file will return list of blocks for a given file.

How to Submit your Code

Once you have completed your assessment, please zip file your code and send it as an attachment back to the Campus Recruiter within the given deadline.