**Assignment # 3**

**Create Hard Disk**

You have a consecutive memory in txt called HD.txt that act as a hard disk. Your consecutive memory is divided into N number of block size For example your memory size is 100 bytes and your block size is 20 bytes then you have 5 blocks in your memory

Now if I will create a folder “OS” in current directory (at root) then, red highlighted changes in table.

Starting block address Folder or file name FOL represents it is a folder Reaming root folder of Folder or file starts from here. And FIL represents File will be at block no 2

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Blk # | 0. |  |  |  |  |  |  |  |  |  |
| 0. | 1 |  | O | S |  | F | O | L |  | 2 |
|  | 5 |  | M | D |  | F | O | L |  | 6 |
|  | 3 |  | A | 4 |  | F | I | L |  | 4 |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |

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Now if I create a file “A4” in root directory then green highlighted changes in table

* Change directory to OS. Now current descriptor will be
  + Current = Starting block of OS \* block size
* Now create a “MD” folder in OS folder then blue highlighted changes in table.

Now for above program your directory structure will be.

Root

OS (FOL)

MD (FOL)

A4 (FIL)

For given task assume your HD.txt size is 100 bytes and block size is 20 bytes.

Your task is to read that HD.txt file. Your current directory will be root.

Input command from user, If user enter “list” then list the contents of current directory.

If user enter “cd <folder name>” then search that folder in current directory then get its block no and then point to its starting address.