Inode practice:

$\frac{1024B}{256B} = 4$ inodes/block

Assume we have a hard disk as below. Each block is 1KB. The block address is 4 Byte. The size of inode is 256 Byte. There is one block dedicated to store inodes. Use the diagram to demonstrate how files are stored in a Unix-based file system.

Instructions:
1) Divide the inode block into individual inode entrys so each inode is a row;
2) Further divide each inode (row) into columns to indicate the following information: file size, 2 direct block pointers, 1 indirect block pointer.
3) For the data blocks taken by a file, just put the file name into that block.

Question:
1) What is the maximal file size supported?

$1KB \times 2 + (1 \times \frac{1024B}{4B}) 1KB$

Tasks:
1) Store file0 with size of 2KB;
2) Store file1 with size of 4KB;

$= 2KB + 256KB$

$= 258KB$

Inode (Block_0)

2KB	1, 2	
4KB	3, 4	5

Block_1: file 0

Block_2: file 0

Block_3: file 1

Block_4: file 1

Block_5: 6, 7, file 1

Block_6: file 1

Block_7: file 1