

README

COSI 131A, PA3 File System

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Bitwise.java

This class manages bitwise operations in a byte or array of bytes.

MyFileSystem.java

```
private DirectBlock getDirectBlock(int fd, MODE mode)
```

This method evaluate the type of blocks(direct or singlyIndirect or doublyIndirect or triplyIndirect) and lead to the corresponding method below to get the direct blocks. The main idea is to read the indirect block(if any) and then locate the direct blocks pointed by the indirect block.

```
private DirectBlock getDirectBPointedBySinglyIndirectB(IndirectBlock indirectB,  
int indirectPointer, int blockOff, MODE mode, int diskPosition)
```

This method simply gets the direct blocks pointed by the singly indirect block. Doubly indirect block is just singly indirect block pointed by another indirect block. Therefore, when trying to get the direct block from doubly indirect block, we could call this method to get the direct blocks.

```
private DirectBlock getDirectBPointedByDoublyIndirectB (IndirectBlock indirectB,  
int indirectPointer1, int blockOff, MODE mode, int diskPosition, int indirectPointer2)
```

This method simply gets the direct blocks pointed by the doubly indirect block. Triply indirect block is just doubly indirect block pointed by another indirect block. Therefore, when trying to get the direct block from triply indirect block, we could call this method.

BUGS: none.