Introduction

This exercise follows on from Tutorial Exercise 7. **If you wait until the deadline to do this exercise it is unlikely that you will be able to finish assignment 4.**

You may work in pairs for this exercise, with your A4 partner, since some code will potentially be common with the assignment. MarkUs will only create the appropriate directory in your repository when you log into MarkUs and either create your group, or declare that you will work alone. The groups will get a new shared repository, and the students working solo may also get a new repository. Please log into MarkUs well before the deadline to take these steps. (If you create the directory in your repo yourself, then MarkUs won't know about it and we won't be able to see your work.)

It is your responsibility to log into MarkUs *before* the exercise deadline to ensure that you know where to commit your work, and so that MarkUs can connect your work to the grading system.

Requirements

Using the same code you wrote in exercise 7, add the code to print out the inode and block bitmaps, and the inodes. This will take a little more code writing than exercise 7.

For emptydisk.img your output should *exactly* match the following. In other words, we should be able to use diff to compare your output to this and see that it is identical (the indentation below uses 4 spaces).

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Inodes: 32

Blocks: 128

Block group:

block bitmap: 3

inode bitmap: 4

inode table: 5

free blocks: 105

free inodes: 21

used\_dirs: 2

Block bitmap: 11111111 11111111 11111100 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000001

Inode bitmap: 11111111 11100000 00000000 00000000

Inodes:

[2] type: d size: 1024 links: 3 blocks: 2

[2] Blocks: 9

For onefile.img your output should match the following:

Inodes: 32

Blocks: 128

Block group:

block bitmap: 3

inode bitmap: 4

inode table: 5

free blocks: 104

free inodes: 20

used\_dirs: 2

Block bitmap: 11111111 11111111 11111100 00000000 00100000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000001

Inode bitmap: 11111111 11110000 00000000 00000000

Inodes:

[2] type: d size: 1024 links: 3 blocks: 2

[2] Blocks: 9

[12] type: f size: 128 links: 1 blocks: 2

[12] Blocks: 35

Submission

Ensure that you have a repository directory created by MarkUs for this exercise (fs2), then add and commit readimage.c and ext2.h to this directory.