

1 PLAN

My plan was to first look at no-op to understand IO schedulers work. I looked at the modularization of the functions, and saw that dispatch executed the request while add managed putting the request in the correct place. I then drew out how the add and dispatch function should work on paper. Then using no-op as a reference, I used the correct struct, etc. to finish the implementation.

2 REFLECTIONS

1. I think the point of the assignment was to let us figure out how to use kernel modules, and figure out complex code ourselves.
2. I approached the problem in two parts. First, how did elevator work. Once I figured that out, I moved on to figuring out how to implement it and include it in the kernel.
3. I made sure it compiled, make sure the kernel used it as default by setting options, fixed many kernel panics, and used printk statements to show my code was actually running. Doing basic file operations worked.
4. I learned how Kernel modules work, and a lot about Disk I/O and kernel data structures.

Detail	Author	Description
337f55d	Taylor Fahlman	Added writeup file
16dfafe	Taylor Fahlman	Added debugging statements
4e313b0	Taylor Fahlman	Fixed init to match closer to noop, added printk for debugging
48b1e09	Taylor Fahlman	Initialized the queue going forward:
ee5d1be	Taylor Fahlman	Fixed make errors
19b5eed	Taylor Fahlman	Fixed prink
1b8337a	Taylor Fahlman	Add sorter to put request in correct place and add prink statement
0a48e33	Taylor Fahlman	Add sorter to put request in correct place
af1472c	Taylor Fahlman	Set request sector position
4e4e0d5	Taylor Fahlman	Added prev and next request definitions
264706d	Taylor Fahlman	Handled add request if the list was empty
96e8b13	Taylor Fahlman	Added variables to add request
09cf9a8	Taylor Fahlman	Actually process request
8fa1342	Taylor Fahlman	Added print statement for debugging/proff
2821d6c	Taylor Fahlman	Fixed makefile errors
e9341ba	Taylor Fahlman	Implemented backwards
fc70a2c	Taylor Fahlman	Handled going forward in requests
95ceb4f	Taylor Fahlman	Checked if previous and next request are the same
eea3138	Taylor Fahlman	Commented to add notes
a2427ea	Taylor Fahlman	If list is not empty, create next and previous request pointers
179f677	Taylor Fahlman	Added exit queue
ef0f078	Taylor Fahlman	Hopefully fixed strange differences between local and master
e465e8b	Taylor Fahlman	Fixed make errors
90fe379	Taylor Fahlman	Corrected typo fixes and makefile errors
474cbfd	Taylor Fahlman	Added struct and shell functions
9a276f2	Taylor Fahlman	added target to makefile
41cc4ba	Taylor Fahlman	Okay, really fixed formatting
f744814	Taylor Fahlman	fixed formattin?
3f40ac2	Taylor Fahlman	added look to default selection
b49de19	Taylor Fahlman	Added inital sstf-iosched file and module init/exit
1fd5567	Taylor Fahlman	Added LOOK as an option in the I/O scheduling config file
d9c6b45	Taylor Fahlman	Updated make clean
f93baa8	Taylor Fahlman	Removed all pthread conditions
2021542	Taylor Fahlman	Changed control construct to while instead of if
3a97f9d	Taylor Fahlman	Added prtnf statements
6ac82c3	Taylor Fahlman	Added print statements for plato and locke
55e26ff	Taylor Fahlman	Added marx thread
88de25a	Taylor Fahlman	Removed swp file
ec8a5fb	Taylor Fahlman	Added marx function
ba1a215	Taylor Fahlman	Added socrates thread
edb136f	Taylor Fahlman	Added socrates function
3cf1db8	Taylor Fahlman	Added pythag thread
d9a65ba	Taylor Fahlman	Added pythagorus function
8a6cceb	Taylor Fahlman	Added locke thread
58ca58d	Taylor Fahlman	Filled locke function
ebf0d4a	Taylor Fahlman	Cleaned up after signal catch
b48fefd	Taylor Fahlman	Added mt19937.h
5e17f74	Taylor Fahlman	Added random num generator, eat, and think functions
3426649	Taylor Fahlman	Added infinite for loop
f76dbb7	Taylor Fahlman	Added function pointer for proper pthread creation
51d58b7	Taylor Fahlman	Added plato thread
ffa8a6d	Taylor Fahlman	Added pthread condition signals
0b270f9	Taylor Fahlman	Added flag checking for forks
b2297cd	Taylor Fahlman	Restructed to use infinite loop
0773ca1	Taylor Fahlman	Changed mutex pairs to int flags, and initilized mutexs
1f5b835	Taylor Fahlman	Added mutex locks/unlocks to plato
5d024e0	Taylor Fahlman	added eat and think functions
4795184	Taylor Fahlman	Added pthread condition signals