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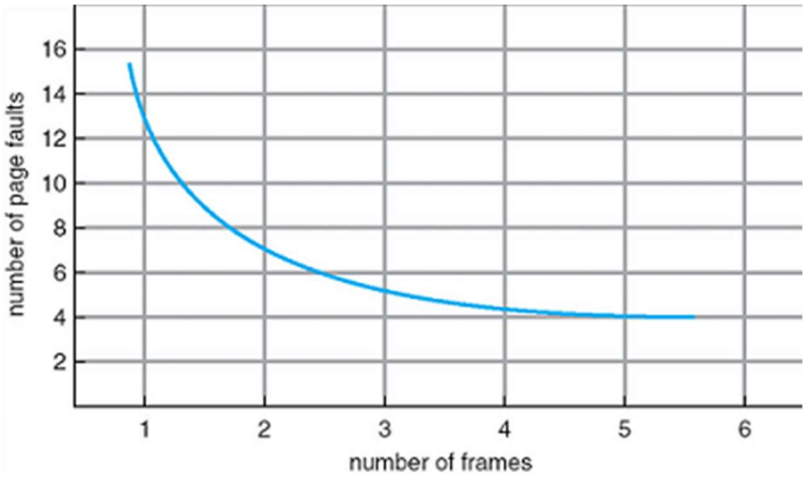
Well from my knowledge of how all of these algorithms work. I believe that the data given was suppose to produce a correlation of as there were more frames the number of page faults steadily decrease like it did from the charts in the readings. I didn't have a chance to create a thread that accessed this and create the 2D vector of an array. As we increase the number of frames there is a general decrease in page faults.



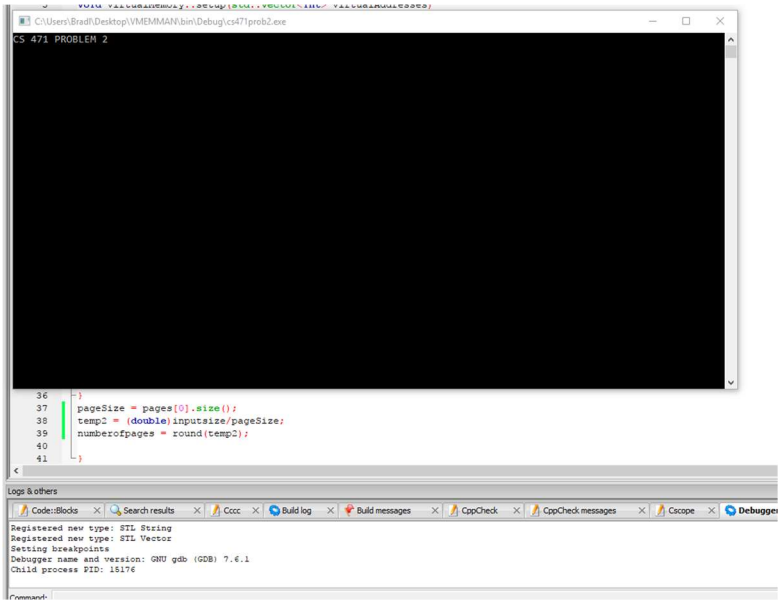
The algorithm goes as follows:

FIFO- First in First Out algorithm is what it means. The first index that is inputted into the frames is going to be the first one to be replaced by the pages address. So as it moves down from the frames it is going to take the oldest index and replace it.

LRU – Least Recently Used algorithm is when the least used out of the frames is going to be replaced. This is practically the same thing as FIFO but we are having a counter that keeps track of how many times a frame has been used. We generally see the page faults decrease as frames increase just like before. This algorithm keeps the frames that are counted most and replaces the ones that are the least.

MRU – Most RECENTLY USED algorithm will produce more page faults than the LRU because we are replacing the frame that has the highest count #. Although less page faults may occur as more frames are allowed, this is by far the least efficient algorithm from them all.

Optimal – Optimal uses a pointer of an address to count up how many times a number in the frame is used. Depending on the one that is used most within a page it will keep it or move past it. I had a lot of trouble producing this algorithm from logic to code mainly because the index that is being used is soo huge that it's hard to keep track if a number that is in the frame is used multiple times and the distance that it has until it is used again. As the pages and number of frames increases I can imagine that there is a massive change in indexing speeds and times.



From the figure above it shows that I ran it with a process and successfully got results back.