Lab4

1. Functionality:
   This lab focuses on displaying the starting address and ending address for virtual memory addressable space, then getting the page frame number for those address and displaying the physical address if the page frame is valid.

2. At first, I added extra code before printf() to check which printf() code prints the lines in the terminal. And it shows that it only prints out the address range and no execution happens in the loop for non-zero frame num. And then I checked out the value for frame number for every address pointer, each of them are 0. In the big “feof” loop, each time it goes through each virtual memory address in the same line and checks whether there is valid frame number for them to translate into physical address. In the “addr = start” loop, it gets the page number for the address by firstly getting the offset, then moving the file position to a SEEK_SET location within the file, and returning the number of elements read. As the result, page frame number here is always 0. File pointer “pagemap” shows that it always points the same address but the address is different every time we execute the program. So I think this programming has the good idea to translate the virtual memory address to physical address though page frame but the code needs to improve and use the inner loop to display the physical address instead of keeping getting 0 as frame number and skipping the inner loop.