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Program 3

The purpose of Program 3 is to write a simulator for a memory manager by taking in user file and sorting the file and coding algorithms for how much memory there is, what memory management policy and the fit algorithm for the data. The program will also give the turnaround time per process. I broke the code into different classes or parts one is the main which starts the code, the process which does most of the operations of getting the file and making the process objects, and the User which holds most of the printing statement the program will use. I use a method called getFileInfo() to use the Scanner and get the input values from the .dat file. The getFileInfo() uses variables with a counter value and assigns them in a do while loop. Inside the do while loop I use the counter to get the number of process since it is the first integer and to assign the value to an outer variable so it can be used in creating a process object to be stored. We use the counter to get the number of process and with that number create an array of objects of the number of process to the be stored into a queue. After each loop in reading the file a new person would be constructed then added to the array of objects. This is the setting to get all of the values from the input values. Then the user will then input the Memory size, memory management policy and fit algorithm if applicable there is a special case if PAG is selected which makes a default page size rather than needing a fit algorithm.