Taimoor Hafeez CISC 3320 ET6

Assignment 1

The allocate map method creates an array with an index of max pid minus min pid and assigns 0’s to all those values. It returns a value of 1 if the array was successfully initialized and a value of -1 if the array was not initialized.

The allocate pid method creates a pidNumber and initializes it to 0. This is the number that will be the pid. A for loop is used to see which pids are used and are not used. If a pid is not used, that is the pid that will be returned. The index of that 0 is added to minPid and returned to be used as the pid number. If pid number is unchanged after the for loop, that means all pids are in use.

The release pid method checks to see if the value of the pid that has to be released is within minPid and maxPid. If it is not, and error message is displayed. A new integer is created and initialized to the value of the pid in the function parameter minus minPid which gives us the index of the pid in the parameter to be released. The value in the array at that index is changed to 0 meaning that pid is released and ready top be used. If a pid value in the parameter is already released, an error message is displayed.