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//************************************  PROGRAM IDENTIFICATION  ***************************************
//*                                                                                                   *
//*   PROGRAM NAME: SIMULATION GROUP PROJECT                                        Grade: _________  *
//*                                                                                                   *
//*   PROGRAM AUTHORS:            NAMES                          SIGNATURES                         *
//*                                                                                                   *
//*                            JEREMY VINER              _____________________________              *
//*                                                                                                   *
//*                         FRANCESCO POLLIZI            _____________________________              *
//*                                                                                                   *
//*                            HEIN HTET ZAW             _____________________________              *
//*                                                                                                   *
//*                           KATIE SCHAFFER             _____________________________              *
//*                                                                                                   *
//*                                                                                                   *
//*   COURSE #:  CSC 40600 11                                                 DUE DATE: May 11, 2016  *
//*                                                                                                   *
//*****************************************************************************************************
//*****************************************************************************************************
//*                                                                                                   *
//*  PROGRAM DESCRIPTION: THIS PROGRAM IS TO SIMULATE THE OPERATIONS OF AN OPERATING SYSTEM AS IT     *
//*                       PROCESSES A STREAM OF INCOMING PROCESSES.                                   *
//*                       THE SIMULATION EMPLOYES: ONE PROCESSOR(CPU)                                 *
//*                                                ONE I/O DEVICE                                     *
//*                                                ONE LONG TERM QUEUE OF 60 SPACES                   *
//*                                                ONE SHORT TERM QUEUE OF 30 SPACES                  *
//*                                                ONE I/O QUEUE.                                     *
//*  THE INITIAL ALGORITHM WILL BE "FCFS" FOR SHORT TERM QUEUE.                                       *
//*                                                                                                   *
//*                                  EXTRA CREDIT OPPORTUNITY 1                                       *
//*                                  ==========================                                       *
//*  EMPLOYING EITHER ONE OF THESE ALGORITHMS WILL BE FOR 10 EXTRA CREDIT.                            *
//*  ROUND-ROBIN | SHORTEST REMAINING TIME NEXT | SHORTEST JOB FIRST | HIGHEST-RESPONSE-RATIO NEXT    *
//*                                                                                                   *
//*  OUTPUT SHOULD INCLUDE: CALCULATED AVERAGE                                                        *
//*                         VARIANCE                                                                  *
//*                         STANDARD DEVIATION OF THE INTER ARRIVAL TIMES                             *
//*                         THE JOB LENGTHS                                                           *
//*                         THE I/O BURST LENGTHS                                                     *
//*                         THE CPU BURST LENGTHS           (OF ALL JOBS)                             *
//*                                                                                                   *
//*                                  EXTRA CREDIT OPPORTUNITY 2                                       *
//*                                  ==========================                                       *
//*  SUBMITTING A WRITTEN REPORT WILL BE ANOTHER 10 POINTS EXTRA CREDIT. THE REPORT SHOULD INCLUDE:   *
//*                THE TITLE OF THE REPORT                                                            *
//*                THE NAMES OF THE TEAM MEMBERS                                                      *
//*                NUMBER OF JOBS PROCESSED                                                           *
//*                NUMBER OF MAJOR DEVISES (CPU, STQ, ETC.) USED                                      *
//*                TYPE OF SCHEDULING ALGORITHM(S) USED AND ON WHICH DEVICES (CPU, I/O, AND QUEUES)   *
//*                ANY OTHER INFORMATION THE TEAM MAY DEEM APPROPIATE                                 *
//*                IF THE PROGRAM EMPLYS A SECOND ALGORITHM, AN OUTLINE OF THE ALGORITHM (PSEUDOCODE) *
//*                       USED IN THE SIMULATION TO MANAGE THE SHORT TERM QUEUE                       *
//*                A MINIMUM OF (3) WAYS IN WHICH THE SIMULATION CAN BE ENHANCED (MAKE MORE REALISTIC)*
//*                                                                                                   *
//*****************************************************************************************************
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