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ITCS 3146

processes.c Documentation

1. Main Function
   1. This program is choice 1 of the two options.
   2. To begin, the pid variable is declared for later forking, and a simple int for storing the menu choice of the user. The menu is then listed in a do while loop that will loop back if the user chooses 1, 2, or 3. If 4 is chosen, the loop and program will end. On top of the menu is the process ID of the main process that will fork and create children.
   3. Choice 1
      1. For choice 1, a child process is created and the program checks to make sure the forking was successful. An if statement is then used to sync up the parent and child code. First, the child will list its process ID along with its parent’s ID. The system call “date” is then used to show the current date. The child process exits. Meanwhile, the parent process has been waiting for the child code’s completion. After waiting is complete, the code loops back to the menu.
      2. Choice 2 is identical in structure to choice 1, except the system call “cal” is used instead to show a calendar of the current month.
      3. Choice 3 is also identical to choice 1, except the system call “ls –l” is used to list the files located in the current directory.
      4. Choice 4 will print a statement alerting the user that they have chosen to terminate the program, and the program ends.