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Shell.java Report

2/25/2022

The implementation of this shell.java starts by separating the input string by the delimiter ‘;’, since that is what tells the program to execute sequentially. After this, it further separates the line by the delimiter ‘&’, and then executes every string in between the ‘&’ concurrently. As it is doing this, it puts the children’s id’s into an array, and then passes this array into the helper function findChild, which takes an int array as its argument and returns nothing. findChild takes the id returned by SysLib.join and checks to see if that id is present into the passed array of ids. If so, it passes that particular id into another array called checkIds, and will continue to loop until the checkIds and ids are equal (which means that all the child processes were joined). Once done, it exits. Shell then resets the id array for the next line of execution.

Ways to test this program include passing in the PingPong.java as the argument and making sure it executes either concurrently or sequentially depending on the input (& for concurrently, ; for sequential).

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