**CSE 3033 - OPERATING SYSTEMS**

**Programming Assignment 2**



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**Part A:**

Firstly we copy PATH variables into array , parse variables then search each directory in the PATH one by one to find the command . we find where the command thanks to Access method. Then we find command , fork child and run the execv(). According to background variable using wait() or waitpid() if command works background we insert linked list to using ps all command.

metin içeren bir resim

Açıklama otomatik olarak oluşturuldu

**PART B:**

This part we start ps\_all command , we print linked list that creating A part to store to background process , we create a struct as background , insertback() and printback().

We cant the list of background jobs that have finished execution since the last time the status is displayed.

Secondly, we create the search command , ıf user enter the search without r option Shell call find() method. In the find method search current working directory to find files like .c, .C, .h, and H.Also in find method we use removeChar() method which remove quotes from words. Then we constructed findinfile() method to open file and to search word in file. On the other hand if the user enter the search with r option Shell call findrecusive. In the findrecursive() method find files in current directory and subdirectory recursively.

Thirdly , we create the bookmark command. First we constructed struct named bookmark. If user enter bookmark we insert it to linked list . If user enters -d as a command we deleted index which user selected . If user enters -i as a command we run index whic user selected.If user enters -l as a command we listed the input list.

Finally , we create the exit command. This command works if there is only one child in the system . The command checks the child pid whether its 0 or not according to that it exits program.

metin içeren bir resim

Açıklama otomatik olarak oluşturuldu

metin içeren bir resim

Açıklama otomatik olarak oluşturuldu

metin içeren bir resim

Açıklama otomatik olarak oluşturuldu

metin, ekran görüntüsü, ekran, siyah içeren bir resim

Açıklama otomatik olarak oluşturuldu

**PART C:**

In this command, first we used a method named determine(). This method determines the redirection type whether it is input, output, error or output appends. We constructed redirectoutput, redirectinput, redirectoutputappend ,printerror methods.In this methods we use dup2 function to redirection.

metin, ekran görüntüsü, ekran içeren bir resim

Açıklama otomatik olarak oluşturuldu