CS450 Group 1

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Programmer's Manual

Serial.c

*polling(char * buffer, int * count):* This function calls the polling function from the Keyboard_polling.c file written as part of R1.

Keyboard_polling.c

*keyboard_polling(char * buffer, int * count):*This function that manages the input and output of the OS by reading and echoing the user's input in the terminal through the serial port.

Comhandle.c

comHand(): This function is used to display the menu to the user, then asks the user for his input using sys_req(Read…). Once the input is entered from polling(), it will then check the input at the first location inside of the userInput array and determine if it equals one of the options available. Each option is labeled within the menu for the user to choose from. After each execution except for shutdown will automatically return to comhandle to allow the user to make another selection. Shutdown asks the user if they want to shut down then either enters the shutdown protocol or returns to the comhandler.

help(): Writes each user function to screen along with an explanation on what they do using sys_req(WRITE,...).

clearInput(): Clears the user input from the buffer.

getTime(): This function writes the current value of time to the RTC index register, converts the result to decimal value and displays the decimal value of time to the user.

setTime(): Prompts the user to enter a time which is then stored in memory.

*getDate():*This function writes the current value of date to the RTC index register, converts the result to decimal value and displays the decimal value of date to the user.

setDate(): Prompts the user to enter a date which is then stored in memory.

version(): Displays current version of the operating system using sys_req(WRITE,...).

shutdown(): Begins the shutdown process, by prompting the user to confirm that they want to shutdown the system using sys_req(WRITE,...).

decToBCD(int num): converts a given integer (num) to binary coded decimal. Returns an unsigned integer.

BCDToDec(int num): converts a given integer to its corresponding character. Returns a character.

itoa(int num, char str):* Takes in an integer number and a character pointer as parameters. Then it gets the second number using modulo 10 and the first number by dividing by 10. Finally, it stores the characters in the character array.