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/*
c program to create new text file by taking i/p s from kboard.
command line args and sys calls have to be used wherever possible.
*/
#include<stdio.h> // perror
#include <unistd.h> // read, write, close
#include <stdlib.h> // exit()
#include <fcntl.h> // mode consts
#include <signal.h> // SIGTSTP; to catch ctrl + z kboard i/p
#include <sys/errno.h> //errno

int main(int argc, char **argv)
{

	int fd, msg;
	char read_byte;
	fd = open(argv[argc - 1], O_WRONLY | O_CREAT | O_EXCL, 0777);
	if (fd != -1)
	{

		while (read(STDIN_FILENO, &read_byte, sizeof(read_byte)) != SIGTSTP)
		{

			write(fd, &read_byte, sizeof(read_byte));
```

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                }
                close(fd);

        }
        else
        {

                write(STDOUT_FILENO, &errno, sizeof(errno));
                perror("File Open Error");
                exit(1);

        }

}

/*
c program to make a copy of the text file created in assignment-1-1.c.
system calls should be used.
*/
#include<fcntl.h>
#include<sys/errno.h>
#include<unistd.h>
#include<stdlib.h>
#include<stdio.h>
```

```
int main(){

   int fd1, fd2, check_read;
   char read_byte;
   fd1 = open("new-file.txt", O_RDONLY);
   fd2 = open("new-file-copy.txt", O_WRONLY | O_CREAT | O_EXCL, 0777);
   if (fd1 == -1 || fd2 == -1)
   {

      write(1, &errno, sizeof(errno));
                  perror("File Open Error");
                  exit(1);

   }
   else
   {

      while (read(fd1, &read_byte, sizeof(read_byte)) > 0)
      {

         write(fd2, &read_byte, sizeof(read_byte));

      }
      close(fd1);
      close(fd2);
```

```
    }
    return 0;

}

/*
c program to check whether the sizes of the two text files created by
assignment-1-1.c and assignment-1-2.c are same or not.
*/
#include<unistd.h>
#include<stdio.h>
#include<fcntl.h>
#include<sys/errno.h>
#include<stdlib.h>

int main(){

    int fd1, fd2, file_1_size = 0, file_2_size = 0;
    fd1 = open("new-file.txt", O_RDONLY);
    fd2 = open("new-file-copy.txt", O_RDONLY);
    char read_byte;
    if (fd1 == -1 || fd2 == -1)
    {
```

```
        write(1, &errno, sizeof(errno));
                        perror("File Open Error");
                        exit(1);

    }
    else
    {

        while (read(fd1, &read_byte, sizeof(read_byte)) > 0)
            file_1_size++;

        while (read(fd2, &read_byte, sizeof(read_byte)) > 0)
            file_2_size++;

        if (file_1_size == file_2_size)
            printf("They are of same sizes...");
        else
            printf("They are of different sizes...");

        close(fd1);
        close(fd2);

    }

}
```

```
/*
c program to display content of a file if it exists
else create a new file of 0 length.
*/
#include<stdio.h>
#include<fcntl.h>
#include<stdlib.h>
#include<unistd.h>

int main(int argc, char **argv){

        int fd;
        char read_byte;
        if(((fd = open(argv[1], O_RDONLY)) != -1)){

                while(read(fd, &read_byte, sizeof(read_byte)) > 0){

                        write(STDOUT_FILENO, &read_byte, sizeof(read_byte));

                }

        }
        else if(fd == -1)
                fd = open(argv[1], O_CREAT, 0777);
```

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        close(fd);

        return 0;


}
```