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#include "type.h"

/*
get ino of source
get parent minode of dest
make new entry in parent inode named the child of dest
set that dest dir entry's ino to source ino
*/

void my_link(char *path)
{
    int ino;
    int p_ino;
    char file1[64], file2[64], temp[64];
    char link_parent[64], link_child[64];

    MINODE *mip;
    MINODE *p_mip;
    INODE *ip;
    INODE *p_ip;

    if(!strcmp(path, ""))//checks to see if user entered a file to be linked
    {
        printf("error, no first file entered.\n");
        return;
    }

    if(!strcmp(third, ""))//checks to see if user entered a link name
    {
        printf("Error, no second file entered.\n");
        return;
    }

    strcpy(file1, path);//copies file that will be linked into file1
    strcpy(file2, third);//copies file2 link into file2

    ino = get_Inode(running->cwd, file1);//gets the inode of the file we want to
link to
    mip = iget(dev, ino);//gets the memory inode of the link file

    if(!mip)//checks to see if the file even exists
    {
        printf("Error, %s does not exist!\n", file1);
        return;
    }

    if(S_ISDIR(mip->INODE.i_mode))//checks to see whether or not we tried to link
to a directory
    {
        printf("ERROR: Can't link a directory!\n");
        return;
    }

    if(!strcmp(file2, "/"))//if the link name is root then copy that into link
parent
        strcpy(link_parent, "/");

    else//copy the dirname of file2 into link parent
    {
        strcpy(temp, file2);
        strcpy(link_parent, dirname(temp));
    }
}

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    strcpy(temp, file2);
    strcpy(link_child, basename(temp)); //copies the basename of the link name
into link child

    p_ino = get_Inode(running->cwd, link_parent); //get the parent inode
    p_mip = iget(dev, p_ino); //get the parent memory inode

    if(!p_mip) //checks to see whether or not the parent inode exists
    {
        printf("Error, no parent exists.\n");
        return;
    }

    if(!S_ISDIR(p_mip->INODE.i_mode)) //checks to see whether or not the parent is
a directory
    {
        printf("Error, not a directory.\n");
        return;
    }

    if(get_Inode(running->cwd, file2)) //checks to see whether or not the child
already exists
    {
        printf("Error, %s already exists.\n", file2);
        return;
    }

    enter_name(p_mip, ino, link_child); //enters the name of the link into the
parent memory inode

    ip = &mip->INODE; //points the inode pointer to the node that the memory inode
points at

    ip->i_links_count++; //updates the link count of the inode pointer
    mip->dirty = 1; //sets the memory inode dirty to 1
    p_ip = &p_mip->INODE; //points the parent inode pointer the parent memory
pointer
    p_ip->i_atime = time(0L); //updates the access time on the parent inode
    p_mip->dirty = 1; //sets the parent inoe dirty to 1

    iput(p_mip); //disuper_poses of parent memory pointer
    iput(mip); //disuper_poses of child memory inode pointer
    return;
}

```