吴老师，骆学长和孙学长好，以下是我的作业。

上机随堂作业

- *教材*

  P. 148-149 题 12、题 17

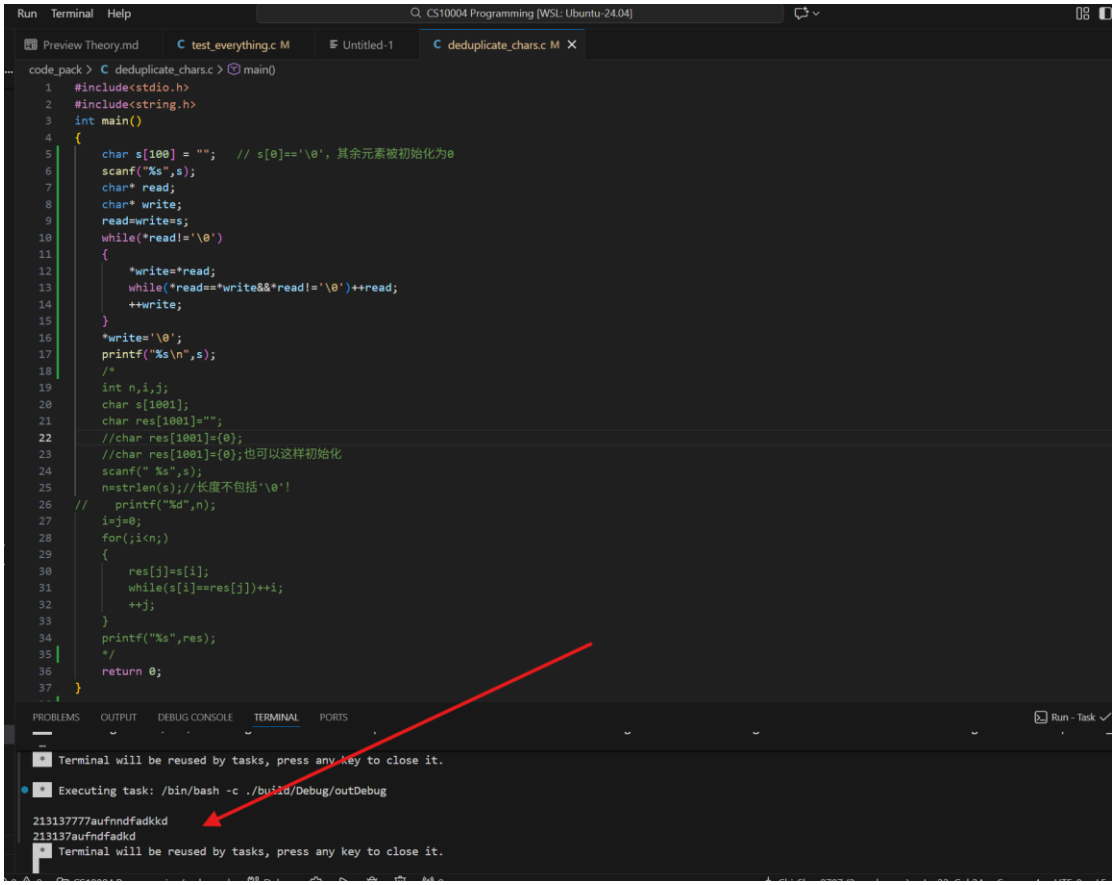
- *补充题 - 补充题*

  编写程序，递归判断回文字符串(使用指针实现。指定测试 1: s1='abcdef'; 指定测试 2: s1='abcdcba'。)

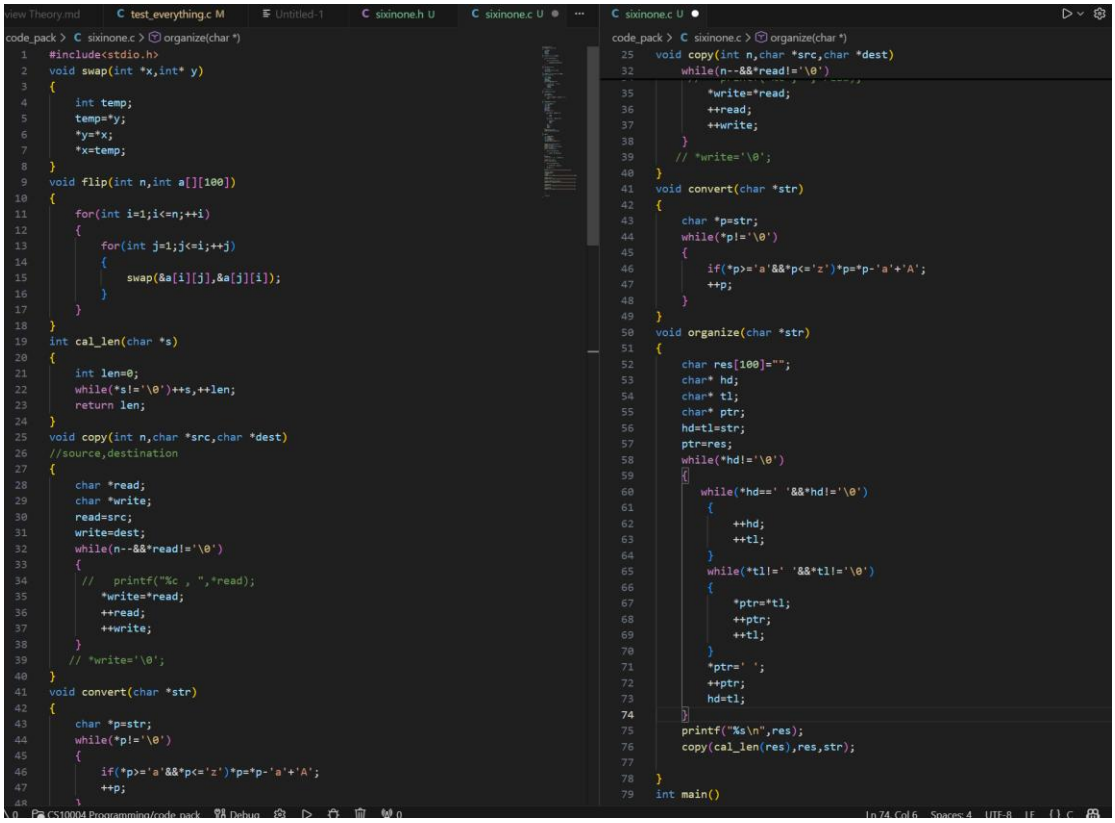
Chi-Shan0707/Homework-in-CS10004-Programming-by-yhchi

代码仓库↑

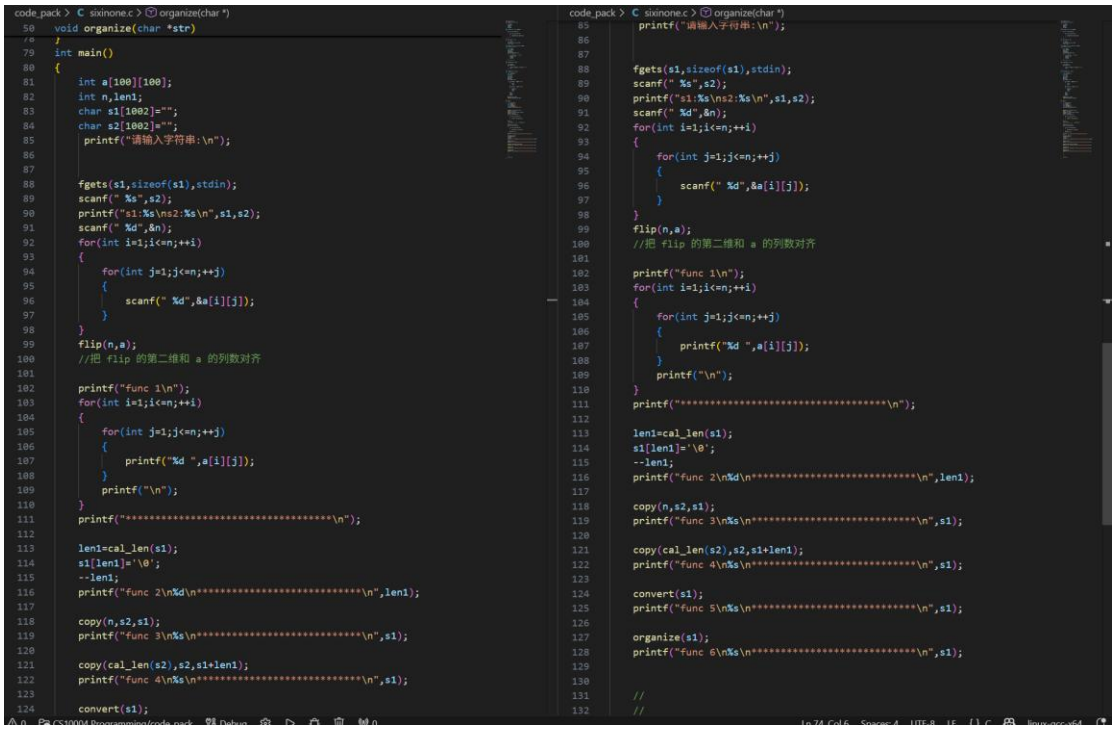
1



2



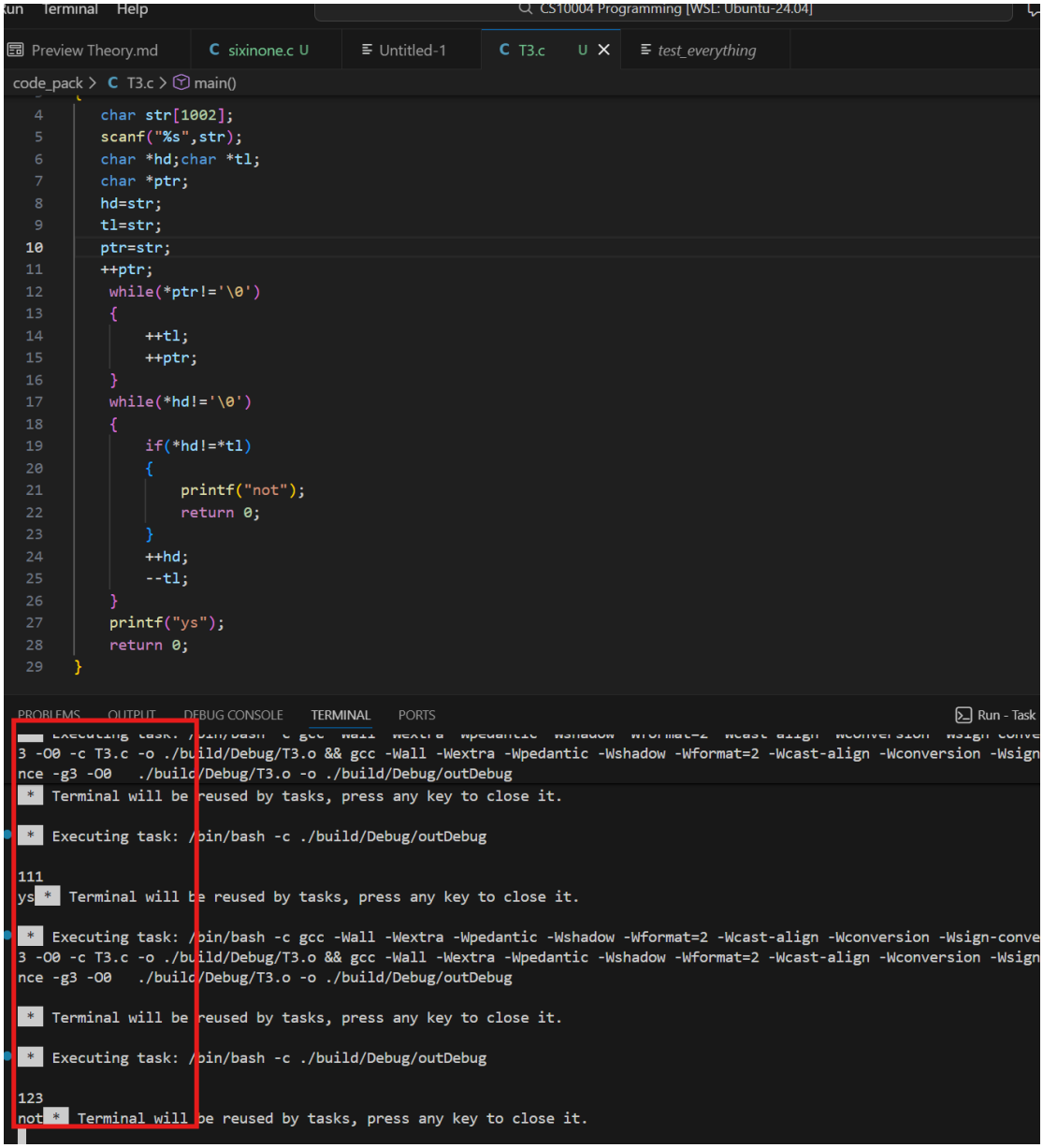
```c
#include<stdio.h>
void swap(int *x,int* y)
{
    int temp;
    temp=*y;
    *y=*x;
    *x=temp;
}
void flip(int n,int a[][100])
{
    for(int i=1;i<=n;++i)
    {
        for(int j=1;j<=i;++j)
        {
            swap(&a[i][j],&a[j][i]);
        }
    }
}
int cal_len(char *s)
{
    int len=0;
    while(*s!='\0')++s,++len;
    return len;
}
void copy(int n,char *src,char *dest)
//source,destination
{
    char *read;
    char *write;
    read=src;
    write=dest;
    while(n--&&*read!='\0')
    {
     //   printf("%c , ",*read);
        *write=*read;
        ++read;
        ++write;
    }
   // *write='\0';
}
void convert(char *str)
{
    char *p=str;
    while(*p!='\0')
    {
        if(*p>='a'&&*p<='z')*p=*p-'a'+'A';
        ++p;
    }
}
void organize(char *str)
{
    char res[100]="";
    char* hd;
    char* tl;
    char* ptr;
    hd=tl=str;
    ptr=res;
    while(*hd!='\0')
    {
       while(*hd==' '&&*hd!='\0')
        {
            ++hd;
            ++tl;
        }
        while(*tl!=' '&&*tl!='\0')
        {
            *ptr=*tl;
            ++ptr;
            ++tl;
        }
        *ptr=' ';
        ++ptr;
        hd=tl;
    }
    printf("%s\n",res);
    copy(cal_len(res),res,str);

}
int main()
```



```c
void organize(char *str)
}
int main()
{
    int a[100][100];
    int n,len1;
    char s1[1002]="";
    char s2[1002]="";
     printf("请输入字符串:\n");


    fgets(s1,sizeof(s1),stdin);
    scanf(" %s",s2);
    printf("s1:%s\ns2:%s\n",s1,s2);
    scanf(" %d",&n);
    for(int i=1;i<=n;++i)
    {
        for(int j=1;j<=n;++j)
        {
            scanf(" %d",&a[i][j]);
        }
    }
    flip(n,a);
    //把 flip 的第二维和 a 的列数对齐

    printf("func 1\n");
    for(int i=1;i<=n;++i)
    {
        for(int j=1;j<=n;++j)
        {
            printf("%d ",a[i][j]);
        }
        printf("\n");
    }
    printf("**********\n");

    len1=cal_len(s1);
    s1[len1]='\0';
    --len1;
    printf("func 2\n%d\n**********\n",len1);

    copy(n,s2,s1);
    printf("func 3\n%s\n**********\n",s1);

    copy(cal_len(s2),s2,s1+len1);
    printf("func 4\n%s\n**********\n",s1);

    convert(s1);
```

3.

```
请输入字符串:
   abcdef GH   IJK   LMN
1234
s1:   abcdef GH   IJK   LMN

s2:1234
3
1 2 3
4 5 6
7 8 9
func 1
1 4 7
2 5 8
3 6 9
**********************************
func 2
29
**************************
func 3
123abcdef GH   IJK   LMN

**************************
func 4
123abcdef GH   IJK   LMN     1234
**************************
func 5
123ABCDEF GH   IJK   LMN     1234
****************************
123ABCDEF GH IJK LMN 1234
func 6
123ABCDEF GH IJK LMN 1234    1234
**************************
```


Terminal Help
CS10004 Programming [WSL: Ubuntu-24.04]
Preview Theory.md
sixinone.c U
Untitled-1
T3.c U
test_everything
code_pack > T3.c > main()
char str[1002];
scanf("%s",str);
char *hd;char *tl;
char *ptr;
hd=str;
tl=str;
ptr=str;
++ptr;
while(*ptr!='\0')
{
++tl;
++ptr;
}
while(*hd!='\0')
{
if(*hd!=*tl)
{
printf("not");
return 0;
}
++hd;
--tl;
}
printf("ys");
return 0;
}
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
Run - Task
3 -O0 -c T3.c -o ./build/Debug/T3.o && gcc -Wall -Wextra -Wpedantic -Wshadow -Wformat=2 -Wcast-align -Wconversion -Wsign
nce -g3 -O0 ./build/Debug/T3.o -o ./build/Debug/outDebug
* Terminal will be reused by tasks, press any key to close it.
* Executing task: /bin/bash -c ./build/Debug/outDebug
111
ys* Terminal will be reused by tasks, press any key to close it.
* Executing task: /bin/bash -c gcc -Wall -Wextra -Wpedantic -Wshadow -Wformat=2 -Wcast-align -Wconversion -Wsign-conve
3 -O0 -c T3.c -o ./build/Debug/T3.o && gcc -Wall -Wextra -Wpedantic -Wshadow -Wformat=2 -Wcast-align -Wconversion -Wsign
nce -g3 -O0 ./build/Debug/T3.o -o ./build/Debug/outDebug
* Terminal will be reused by tasks, press any key to close it.
* Executing task: /bin/bash -c ./build/Debug/outDebug
123
not* Terminal will be reused by tasks, press any key to close it.