

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

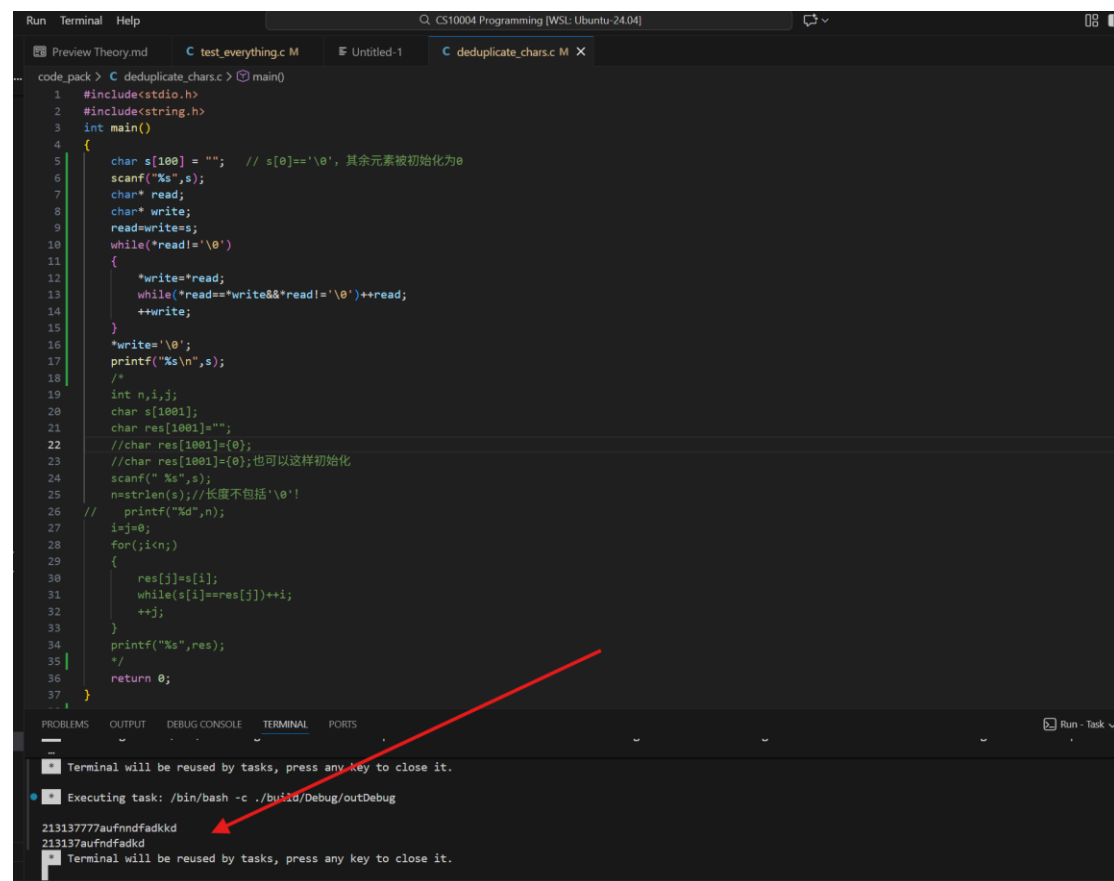
- 补充题 - 补充题

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



```
code_pack > C deduplicate_chars.c > main()
1 #include<stdio.h>
2 #include<string.h>
3 int main()
4 {
5     char s[100] = ""; // s[0]=='\0', 其余元素被初始化为0
6     scanf("%s",s);
7     char* read;
8     char* write;
9     read=write=s;
10    while(*read!='\0')
11    {
12        *write=*read;
13        while(*read==*write&&*read!='\0')++read;
14        ++write;
15    }
16    *write='\0';
17    printf("%s\n",s);
18    /*
19     int n,i,j;
20     char s[1001];
21     char res[1001]="";
22     //char res[1001]={0};
23     //char res[1001]={0};也可以这样初始化
24     scanf("%s",s);
25     n=strlen(s); //长度不包括'\0'!
26     // printf("%d",n);
27     i=j=0;
28     for(;i<n;)
29     {
30         res[j]=s[i];
31         while(s[i]==res[j])++i;
32         ++j;
33     }
34     printf("%s",res);
35     */
36    return 0;
37 }
```

Terminal will be reused by tasks, press any key to close it.

Executing task: /bin/bash -c ./build/Debug/outDebug

2113137777aufndfdadkdd
2113137aufndfdadkdd

Terminal will be reused by tasks, press any key to close it.

2

```
code_pack > C sixinone.c > organize(char *)
1 #include<stdio.h>
2 void swap(int *x,int* y)
3 {
4     int temp;
5     temp=*y;
6     *y=*x;
7     *x=temp;
8 }
9 void flip(int n,int a[][100])
10 {
11     for(int i=1;i<=n;++i)
12     {
13         for(int j=1;j<=i;++j)
14         {
15             swap(&a[i][j],&a[j][i]);
16         }
17     }
18 }
19 int cal_len(char *s)
20 {
21     int len=0;
22     while(*s!='\0')++s,++len;
23     return len;
24 }
25 void copy(int n,char *src,char *dest)
26 //source,destination
27 {
28     char *read;
29     char *write;
30     read=src;
31     write=dest;
32     while(n--&&*read!='\0')
33     {
34         // printf("%c ",*read);
35         *write=*read;
36         ++read;
37         ++write;
38     }
39     // *write='\0';
40 }
41 void convert(char *str)
42 {
43     char *pstr;
44     while(*p!='\0')
45     {
46         if(*p>='a'&&*p<='z')*p=*p-'a'+'A';
47         ++p;
48     }
49 }
50 void organize(char *str)
51 {
52     char res[100]="";
53     char* hd;
54     char* tl;
55     char* ptr;
56     hd=tl=str;
57     ptr=res;
58     while(*hd!='\0')
59     {
60         while(*hd==' ' &&*hd!='\0')
61         {
62             ++hd;
63             ++tl;
64         }
65         while(*tl==' ' &&*tl!='\0')
66         {
67             *ptr=*tl;
68             ++ptr;
69             ++tl;
70         }
71         *ptr=' ';
72         ++ptr;
73         hd=tl;
74     }
75     printf("%s\n",res);
76     copy(cal_len(res),res,str);
77 }
78
79 int main()
```

```
code_pack > C sixinone.c > organize(char *)
50 void organize(char *str)
51 {
52     printf("请输入字符串:\n");
53
54     int main()
55     {
56         int a[100][100];
57         int n,len1;
58         char s1[1002]="";
59         char s2[1002]="";
60         printf("请输入字符串:\n");
61
62         fgets(s1,sizeof(s1),stdin);
63         scanf("%s",s2);
64         printf("s1:%s\ns2:%s\n",s1,s2);
65         scanf("%d",&n);
66         for(int i=1;i<=n;++i)
67         {
68             for(int j=1;j<=n;++j)
69             {
70                 scanf("%d",&a[i][j]);
71             }
72         }
73         flip(n,a);
74         //把 flip 的第二维和 a 的列数对齐
75
76         printf("func 1\n");
77         for(int i=1;i<=n;++i)
78         {
79             for(int j=1;j<=n;++j)
80             {
81                 printf("%d ",a[i][j]);
82             }
83             printf("\n");
84         }
85         printf("*****\n");
86
87         len1=cal_len(s1);
88         s1[len1]='\0';
89         --len1;
90         printf("func 2\n%d\n*****\n",len1);
91
92         copy(n,s2,s1);
93         printf("func 3\n%s\n*****\n",s1);
94
95         copy(cal_len(s2),s2,s1+len1);
96         printf("func 4\n%s\n*****\n",s1);
97
98         convert(s1);
99         printf("func 5\n%s\n*****\n",s1);
100
101         organize(s1);
102         printf("func 6\n%s\n*****\n",s1);
103
104         //
105         //
106     }
107 }
```

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
*****
```

```
run Terminal Help CS10004 Programming [WSL: Ubuntu-24.04]
Preview Theory.md C sixinone.c U Untitled-1 C T3.c U X test_everything
code_pack > C T3.c > main()
4 char str[1002];
5 scanf("%s",str);
6 char *hd;char *tl;
7 char *ptr;
8 hd=str;
9 tl=str;
10 ptr=str;
11 ++ptr;
12 while(*ptr!='\0')
13 {
14     ++tl;
15     ++ptr;
16 }
17 while(*hd!='\0')
18 {
19     if(*hd!=*tl)
20     {
21         printf("not");
22         return 0;
23     }
24     ++hd;
25     --tl;
26 }
27 printf("ys");
28 return 0;
29 }

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS Run - Task
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
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.
```