Week2-Assignment-report

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1.
*(s+4)
p[4]

2.
sort.c:

```c
#include <stdio.h>
#include <malloc.h>
struct Student
{
    int number;
    int score;
};

int main()
{
    int n;
    scanf("%d", &n);
    struct Student *students = (struct Student *)malloc(n * sizeof(struct Student));
    for (int i = 0; i < n; i++)
    {
        scanf("%d %d", &(students + i)->number, &(students + i)->score);
    }
    for (int i = 0; i < n - 1; i++)
    {
        int min = 10000;
        int id = -1;
        for (int j = i; j < n; j++)
        {
            if (students[j].score < min)
            {
                min = students[j].score;
                id = j;
            }
        }
        if (id > 0)
        {
            struct Student tmp = students[i];
            students[i] = students[id];
            students[id] = tmp;
        }
    }
    printf("Output:\n");
    for (int i = 0; i < n; i++)
    {
        printf("%d %d\n", students[i].number, students[i].score);
    }
}
```

3.

ex3.c:

```c
#include <stdio.h>
#include <string.h>
struct AGE
{
    int year;
    int month;
    int day;
};
struct STUDENT
{
    char name[20];
    int num;
    struct AGE birthday;
    float score;
};
int main(void)
{
    struct STUDENT student1;
    struct STUDENT *p = NULL;
    p = &student1;
    // ----start----
    // 1. 填空，完成名字赋值(将下划线替换成你的代码)
    strcpy(p->name, "OS_Bob");
    // 2. 设置出生年月为2001-2-23
    p->birthday.year = 2001;
    p->birthday.month = 2;
    p->birthday.day = 23;

    // 3. 填空，学号和分数设置为12100001和100(将下划线替换成你的代码)
    p->num = 12100001;
    p->score = 100;

    // 4.请将相关信息打印到屏幕上，并截图
    printf("Student's name:%s sid:%d score:%.2f birthday:%d-%d-%d\n",
            p->name,
            p->num,
            p->score,
            p->birthday.year,
            p->birthday.month,
            p->birthday.day);

    // ----end----
    return 0;
}
```

result:

```
11911609JohnnyGe@johnny-Ge-WXX9:~/OS/lab2$ g++ ex3.c
11911609JohnnyGe@johnny-Ge-WXX9:~/OS/lab2$ ./a.out
Student's name:OS_Bob sid:12100001 score:100.00 birthday:2001-2-23
11911609JohnnyGe@johnny-Ge-WXX9:~/OS/lab2$ []
```

4.
linklist.c:

```c
#include <stdio.h>
#include <malloc.h>
#include <stdlib.h>

typedef struct Link {
    int  elem;
    struct Link *next;
}link;

int main()
{
    link p1;
    p1.elem = 0;
    p1.next = NULL;
    int n = 0;
    scanf("%d", &n);
    for (int i = 0; i < n; i++)
    {
        link *p2 = (link *)malloc(sizeof(link));
        int x = 0;
        scanf("%d", &x);
        p2->elem = x;
        p2->next = NULL;
        if (p1.next != NULL)
        {
            p2->next = p1.next;
        }
        p1.next = p2;
    }
    link *p = &p1;
    while (p->next != NULL)
    {
        printf("%d ", p->elem);
        p = p->next;
    }
    printf("%d ", p->elem);
}
```