

## LAB REPORT 实验报告

Lab Title	Pointers			Lab No.	06
Stud. Name		Major	CST	Class	
Student ID			Date		

**Lab description/objectives:**  
Write a function named `date( )` that accepts an integer of the form `yyyymmdd`, such as `20220412`; determines the corresponding month, day, and year; and returns these three values to the calling function. For example, if `date` is called using the statement `date(20220411, &month, &day, &year)`, the number 4 should be returned in month, the number 11 in day, and the number 2022 in year.

**Source code:**

```
#include <math.h>
#include <stdio.h>

void date(int input, int* month, int* day, int* year)
{
    int m = 0, d = 0, y = 0;
    for (int i = 0; i < 8; i++) {
        if (i < 2) {
            d += (input % 10) * pow(10, i);
        }
        else if (i < 4) {
            m += (input % 10) * pow(10, i - 2);
        }
        else {
            y += (input % 10) * pow(10, i - 4);
        }
        input /= 10;
    }
    *month = m;
    *day = d;
```

```
*year = y;

return;
}

int main()
{
    int input;

    int month, day, year;

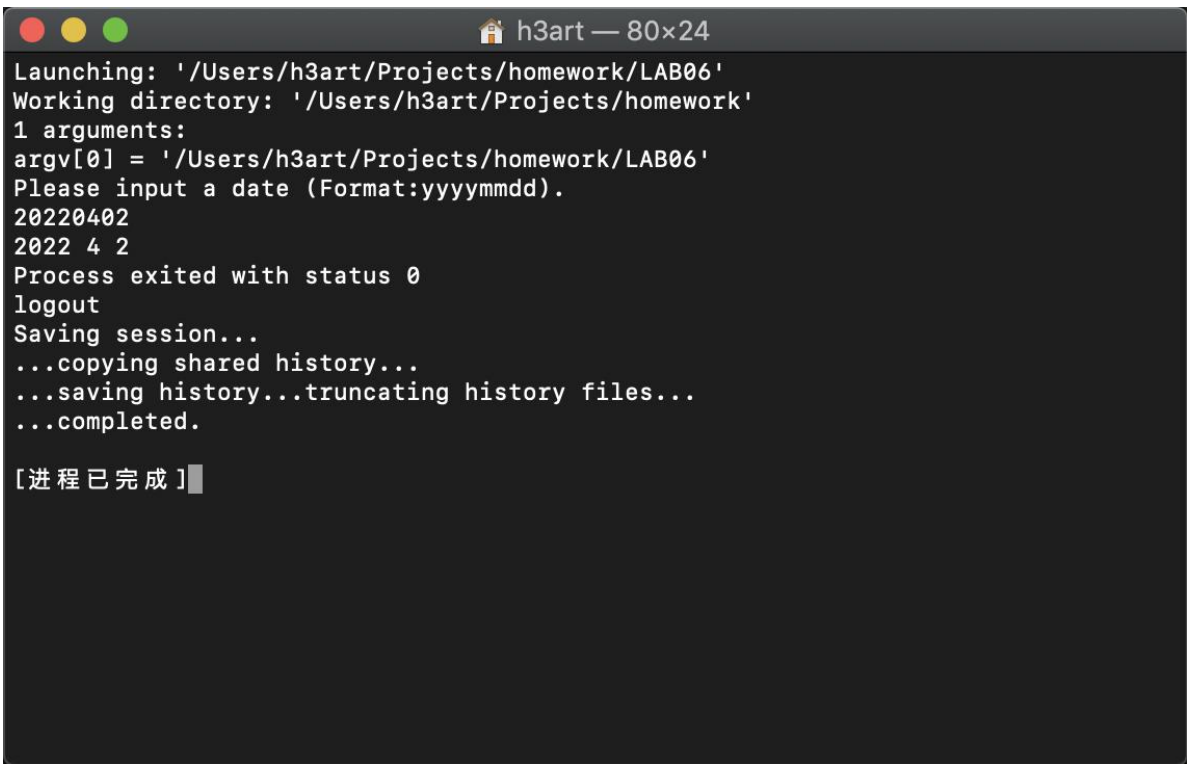
    printf("Please input a date (Format:yyyymmdd).\n");

    scanf("%d", &input);

    date(input, &month, &day, &year);

    printf("%d %d %d\n", year, month, day);

    return 0;
}
```

**Program outputs:**A terminal window titled 'h3art — 80x24' with a dark background and light text. It shows the execution of a program. The output includes the launch path, working directory, arguments, a prompt for a date, the input '20220402', the formatted output '2022 4 2', and session management messages. It ends with a Chinese message indicating the process is complete.

```
Launching: '/Users/h3art/Projects/homework/LAB06'
Working directory: '/Users/h3art/Projects/homework'
1 arguments:
argv[0] = '/Users/h3art/Projects/homework/LAB06'
Please input a date (Format:yyyymmdd).
20220402
2022 4 2
Process exited with status 0
logout
Saving session...
...copying shared history...
...saving history...truncating history files...
...completed.

[进程已完成]
```

```
h3art — 80x24
Launching: '/Users/h3art/Projects/homework/LAB06'
Working directory: '/Users/h3art/Projects/homework'
1 arguments:
argv[0] = '/Users/h3art/Projects/homework/LAB06'
Please input a date (Format:yyyymmdd).
20021116
2002 11 16
Process exited with status 0
logout
Saving session...
...copying shared history...
...saving history...truncating history files...
...completed.

[进程已完成]
```

**Discussion:**

**1. Most difficult parts**

Achieve the integer partition and use pointers as parameters

**2. Bugs and/or Errors**