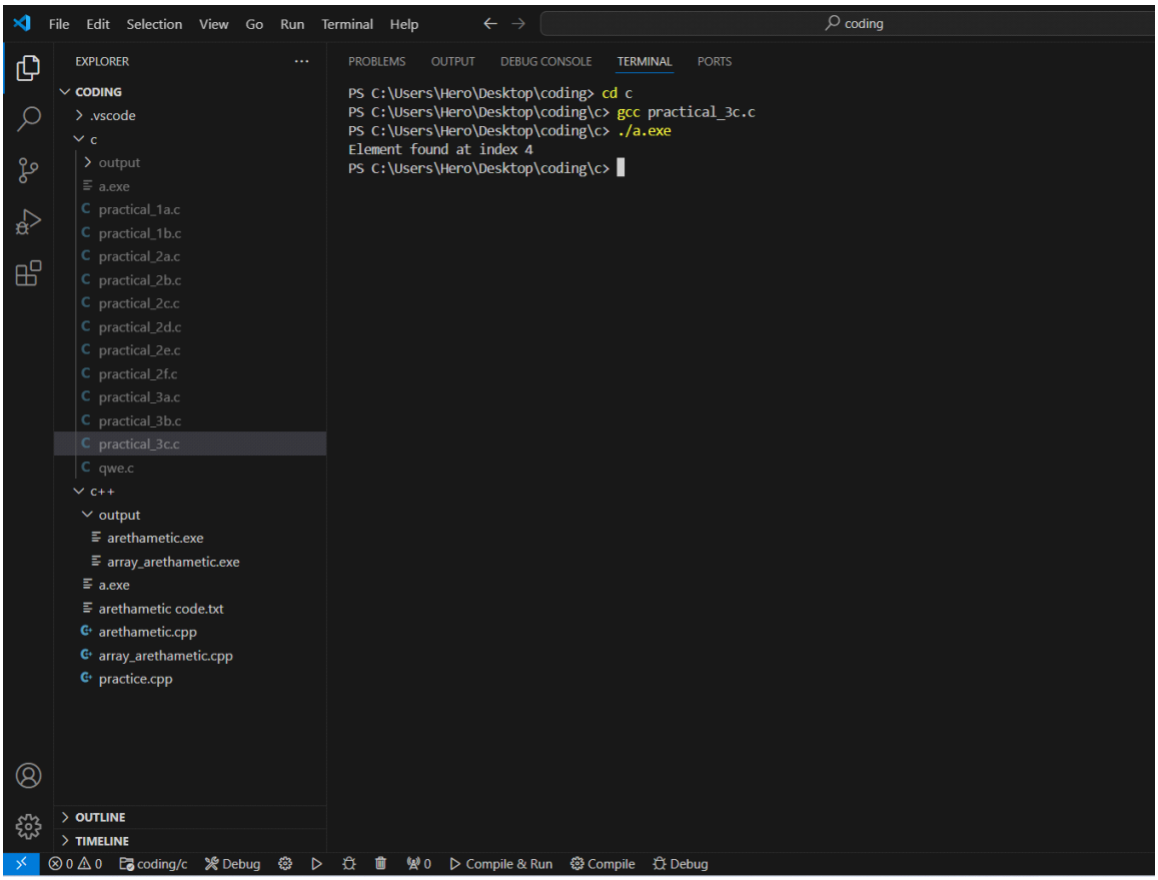
```
#include <stdio.h>

int binarySearch(int arr[], int size, int num) {
	int left = 0;
	int right = size - 1;

	while (left <= right) {
		int mid = left + (right - left) / 2;

		if (arr[mid] == num) {
			return mid;
		}

		if (arr[mid] < num) {
			left = mid + 1;
		}
		else {
			right = mid - 1;
		}
	}

	return 0;
}

int main() {
```

```
    int arr[] = {2, 3, 4, 10, 40};
    int size = sizeof(arr) / sizeof(arr[0]);
    int num = 40;

    int result = binarySearch(arr, size, num);

    if (result != -1) {
        printf("Element found at index %d¥n", result);
    } else {
        printf("Element not found¥n");
    }

    return 0;
}
```


File Edit Selection View Go Run Terminal Help
coding
EXPLORER
CODING
.vscode
c
output
a.exe
practical_1a.c
practical_1b.c
practical_2a.c
practical_2b.c
practical_2c.c
practical_2d.c
practical_2e.c
practical_2f.c
practical_3a.c
practical_3b.c
practical_3c.c
qwe.c
c++
output
arethametic.exe
array_arethametic.exe
a.exe
arethametic code.txt
arethametic.cpp
array_arethametic.cpp
practice.cpp
OUTLINE
TIMELINE
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
PS C:\Users\Hero\Desktop\coding> cd c
PS C:\Users\Hero\Desktop\coding\c> gcc practical_3c.c
PS C:\Users\Hero\Desktop\coding\c> ./a.exe
Element found at index 4
PS C:\Users\Hero\Desktop\coding\c>
0 0 coding/c Debug 0 Compile & Run Compile Debug