Description:

This C program performs a linear search in an array, tells you if the element is found or not, and prints how long the search took to run.

Source Code:

```
#include <stdio.h>

#include <time.h>


int main () {

	int arr[100], i, n, c, found = 0;

	clock_t start, end;

	double cpu_time_used;


	printf("Enter N: ");

	scanf("%d", &n);


	printf("Enter Array of %d elements:\n", n);

	for (i = 0; i < n; i++) {

	scanf("%d", &arr[i]);

	}


	printf("Enter Search element c:");

	scanf("%d", &c);


	start = clock();
```

```
        for (i = 0; i < n; i++) {
        if (arr[i] == c) {
        printf("Element %d found in position %d\n", c, i + 1);
        found = 1;
        break;
        }
        }

        end = clock();

        if (!found) {
        printf("Element %d not found\n", c);
        }

        cpu_time_used = ((double)(end - start)) / CLOCKS_PER_SEC;
        printf("Execution time: %.6f Seconds\n", cpu_time_used);

  return 0; // Note: This function is non-standard (usually conio.h)
}
```

Output:

```
Enter N: 5
Enter Array of 5 elements:
2
4
6
8
10
Enter Search element c:4
Element 4 found in position 2
Execution time: 0.000015 Seconds
```