

# C LIBRARY FUNCTION - DIFFTIME

[http://www.tutorialspoint.com/c\\_standard\\_library/c\\_function\\_difftime.htm](http://www.tutorialspoint.com/c_standard_library/c_function_difftime.htm)

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## Description

The C library function **double difftime**(*time\_t* time1, *time\_t* time2) returns the difference of seconds between **time1** and **time2** i.e. *time1* - *time2*. The two times are specified in calendar time, which represents the time elapsed since the Epoch 00:00:00 on January 1, 1970, *Coordinated Universal Time (UTC)*.

## Declaration

Following is the declaration for difftime function.

```
double difftime(time_t time1, time_t time2)
```

## Parameters

- **time1** -- This is the time\_t object for end time.
- **time2** -- This is the time\_t object for start time.

## Return Value

This function returns the difference of two times *time2* - *time1* as a double value.

## Example

The following example shows the usage of difftime function.

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

int main ()
{
    time_t start_t, end_t;
    double diff_t;

    printf("Starting of the program...\n");
    time(&start_t);

    printf("Sleeping for 5 seconds...\n");
    sleep(5);

    time(&end_t);
    diff_t = difftime(end_t, start_t);

    printf("Execution time = %f\n", diff_t);
    printf("Exiting of the program...\n");

    return(0);
}
```

Let us compile and run the above program that will produce the following result:

```
Starting of the program...
Sleeping for 5 seconds...
Execution time = 5.000000
Exiting of the program...
```

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