

C library function - difftime()

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 (time1 - time2) 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);
```

[Live Demo](#)

```
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...
```