C library function - gmtime()

Description

The C library function **struct tm *gmtime(const time_t *timer)** uses the value pointed by timer to fill a **tm** structure with the values that represent the corresponding time, expressed in Coordinated Universal Time (UTC) or GMT timezone.

Declaration

Following is the declaration for gmtime() function.

```
struct tm *gmtime(const time_t *timer)
```

Parameters

- ▫ **timeptr** − This is the pointer to a time_t value representing a calendar time.

Return Value

This function returns pointer to a tm structure with the time information filled in. Below is the detail of timeptr structure −

```
struct tm {
   int tm_sec;         /* seconds,  range 0 to 59        */
   int tm_min;         /* minutes, range 0 to 59         */
   int tm_hour;        /* hours, range 0 to 23           */
   int tm_mday;        /* day of the month, range 1 to 31 */
   int tm_mon;         /* month, range 0 to 11           */
   int tm_year;        /* The number of years since 1900 */
   int tm_wday;        /* day of the week, range 0 to 6  */
   int tm_yday;        /* day in the year, range 0 to 365 */
   int tm_isdst;       /* daylight saving time           */
};
```

Example

The following example shows the usage of gmtime() function.

Live Demo

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

#define BST (+1)
```

```
#define CCT (+8)

int main () {

   time_t rawtime;
   struct tm *info;

   time(&rawtime);
   /* Get GMT time */
   info = gmtime(&rawtime );

   printf("Current world clock:\n");
   printf("London : %2d:%02d\n", (info->tm_hour+BST)%24, info->tm_min);
   printf("China  : %2d:%02d\n", (info->tm_hour+CCT)%24, info->tm_min);

   return(0);
}
```

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

```
Current world clock:
London : 14:10
China : 21:10
```