

```
#include<iostream>
#include<ctime>
#include<cstdlib>
```

```
using namespace std;
```

```
int main()
{
    int sec_prev=0;
    while(1)
    {
        int seconds, minutes, hours;
        string str;

        //storing total seconds
        time_t total_seconds=time(0);

        //getting values of seconds, minutes and hours
        struct tm* ct=localtime(&total_seconds);

        seconds=ct->tm_sec;
        minutes=ct->tm_min;
        hours=ct->tm_hour;

        //converting it into 12 hour format
        if(hours>=12)
            str="PM";
        else
            str="AM";
        hours=hours>12?hours-12:hours;

        //printing the result
        if(seconds==sec_prev+1 || (sec_prev==59 && seconds==0))
        {
            system("CLS");
            cout<< (hours<10?"0":"") << hours <<":" << (minutes<10?"0":"") << minutes <<":"
                (seconds<10?"0":"") << seconds << " " << str <<endl;
        }

        sec_prev=seconds;

    }

    return 0;
}
```

class

```
sh: CLS: command not found
06:06:01 PM
sh: CLS: command not found
06:06:02 PM
sh: CLS: command not found
06:06:03 PM
sh: CLS: command not found
06:06:04 PM
sh: CLS: command not found
06:06:05 PM
sh: CLS: command not found
06:06:06 PM
sh: CLS: command not found
06:06:07 PM
sh: CLS: command not found
06:06:08 PM
```

```

3 // homework=>data-structure
4 //
5 // Created by Hadi-cyb on 9/19/20.
6 //
7
8 #include <iostream>
9 using namespace std;
10
11 void setTime(int &hour,int &minutes,int &seconds);
12 void printTime(int hour,int min,int sec);
13
14 class Time {
15 public:
16     int hour,min,sec;
17 };
18
19 void setTime(int &h,int &m,int &s){
20     Time timeObj;
21
22     cout<<"hour: ";
23     cin >> timeObj.hour;
24     h=timeObj.hour;
25
26     cout<<"minutes: ";
27     cin >> timeObj.min;
28     m=timeObj.min;
29
30     cout<<"second: ";
31     cin >> timeObj.sec;
32     s=timeObj.sec;
33
34 }
35
36 void printTime(int hour,int min,int sec){
37     cout << "the custom time is: " << hour << ":" << min << ":" << sec <<endl;
38 }
39
40 int main() {
41     int h,m,s = 0;
42     setTime(h,m,s);
43     if(m <= 60 && s<=60 && h<=24)
44         printTime(h,m,s);
45     else cout<<"went wrong !..."<<'\n';
46
47
48     return 0;
49 }

```

The screenshot shows a C++ IDE with a file named `main.cpp` open. The code is the same as shown in the first block. The IDE's output window at the bottom right displays the following text:

```

hour: 12
minutes: 45
second: 30
the custom time is: 12:45:30
Program ended with exit code: 0

```