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## Predefined Macros in C language

| Predefined macro | Value   |
|------------------|---|
| __DATE__         | String containing the current date                          |
| __FILE__         | String containing the file name                             |
| __LINE__         | Integer representing the current line number                |
| __STDC__         | If follows ANSI standard C, then value is a nonzero integer |
| __TIME__         | String containing the current date.                         |

### How to use predefined Macros?

C Program to find the current time

```
#include <stdio.h>
int main(){
    printf("Current time: %s", __TIME__); //calculate the current time
}
```

Output

Current time: 19:54:39

## Homework5

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**EX1: C Program to Store Information(name, roll and marks) of a Student Using Structure**

In this program, a structure(student) is created which contains name, roll and marks as its data member. Then, a structure variable(s) is created. Then, data (name, roll and marks) is taken from user and stored in data members of structure variable s. Finally, the data entered by user is displayed.

#### Output

Enter information of students:

Enter name: Adele

Enter roll number: 21

Enter marks: 334.5

Displaying Information

name: Adele

Roll: 21

Marks: 334.50

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## EX2: C Program to Add Two Distances (in inch-feet) System Using Structures

#### Output

Enter information for 1st distance

Enter feet: 12

Enter inch: 3.45

Enter information for 2nd distance

Enter feet: 12

Enter inch: 9.2

Sum of distances=25'-0.6"

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## EX3: C Program to Add Two Complex Numbers by Passing Structure to a Function

#### Output

For 1st complex number

Enter real and imaginary respectively: 2.3  
4.5

For 1st complex number  
Enter real and imaginary respectively: 3.4  
5  
Sum=5.7+9.5i

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## EX4: C Program to Store Information of Students Using Structure

In this program, a structure(student) is created which contains name, roll and marks as its data member. Then, an array of structure of 10 elements is created. Then, data(name, roll and marks) for 10 elements is asked to user and stored in array of structure. Finally, the data entered by user is displayed.

### Output

Enter information of students:

For roll number 1  
Enter name: Tom  
Enter marks: 98

For roll number 2  
Enter name: Jerry  
Enter marks: 89

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.  
.

Displaying information of students:

Information for roll number 1:  
Name: Tom  
Marks: 98

.  
.  
.

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## EX5: C Program to find area of a circle, passing arguments to macros. [Area of circle= $\pi r^2$ ]

## Output

Enter the radius: 3  
Area=28.27

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## EX6: write the output of this program

```
#include <stdio.h>
union job {      //defining a union
    char name[32];
    float salary;
    int worker_no;
}u;
struct job1 {
    char name[32];
    float salary;
    int worker_no;
}s;
int main(){
    printf("size of union = %d", sizeof(u));
    printf("\nsize of structure = %d", sizeof(s));
    return 0;
}
```