## 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

## 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
```

## 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 1st distance
Enter feet: 12
Enter inch: 9.2

Sum of distances=25'-0.6"
```

## 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

---

## 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
.
.
.
Displaying information of students:

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

---

## EX5: C Program to find area of a circle, passing arguments to macros. [Area of circle=πr2]

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## EX6: write the output of this program

```c
#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;
}
```

Output:
size of union = 32
size of structure = 40