S.No: 24	Exp. Name: ***Illustrate the use of static variables***	Date:2023-04-01

Aim:

Illustrate the use of static variables
The **static** variables are used within function/ file as local static variables.
They can also be used as a global variable
Static local variable is a local variable that retains and stores its value between function calls or block and remains visible only to the function or block in which it is defined.
Static global variables are global variables visible only to the file in which it is declared.
Static variable has a default initial value zero and is initialized only once in its lifetime.
Follow the instructions given in the comment lines to declare and initialize the static variables and understand the working of static variables.

Source Code:

static.c

```
#include <stdio.h>
void next(void);
static int counter=5;// Declare a global static variable 'counter' with an initial va
lue of 5.
void main() {
   while(counter<10) {
      next();
      counter++;
   }
   return 0;
}
void next( void ) {
   static int iteration=10;// Declare a static integer variable 'iteration' with an i
nitial value 10
   iteration ++;
   printf("iteration=%d and counter= %d\n", iteration, counter);
}
```

Execution Results - All test cases have succeeded!

Test Case - 1
User Output
iteration=11 and counter= 5
iteration=12 and counter= 6
iteration=13 and counter= 7
iteration=14 and counter= 8
iteration=15 and counter= 9