C library macro - va_end()

Description

The C library macro **void va_end(va_list ap)** allows a function with variable arguments which used the **va_start** macro to return. If **va_end** is not called before returning from the function, the result is undefined.

Declaration

Following is the declaration for va_end() macro.

```c
void va_end(va_list ap)
```

Parameters

- ▫ **ap** − This is the va_list object previously initialized by va_start in the same function.

Return Value

This macro does not return any value.

Example

The following example shows the usage of va_end() macro.

Live Demo

```c
#include <stdarg.h>
#include <stdio.h>

int mul(int, ...);

int main () {
   printf("15 * 12 = %d\n",  mul(2, 15, 12) );

   return 0;
}

int mul(int num_args, ...) {
   int val = 1;
   va_list ap;
   int i;

   va_start(ap, num_args);
```

```c
      for(i = 0; i < num_args; i++) {
         val *= va_arg(ap, int);
      }
      va_end(ap);

      return val;
   }
```

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

```
15 * 12 =  180
```