The given function is not reentrant due to usage of static variables in function. Static variables holds the previous record of its own value. In here when we have two threads and thread1 call function get\_next() for ten times then thread switch happened. Thread2 first value on call is not one. Value that returns where thread 1 left.

It makes it not reentrant function.

Reentrant version:

#include <stdio.h>

int get\_next(int \*next){

\*next = \*next + 1;

return \*next;

}