OpenMP- Hello world!

Let’s print the statement “Hello world!” using all the threads in you computer:


```
#include <omp.h>
#include <stdio.h>

 main(int argc, char *argv[]) {

 int nthreads, tid;

 /* Fork a team of threads with each thread having a private tid variable */
 #pragma omp parallel private(tid)
   {

   /* Obtain and print thread id */
   tid = omp_get_thread_num();
   printf("Hello World! from thread = %d\n", tid);

   /* Only master thread does this */
   if (tid == 0)
     {
     nthreads = omp_get_num_threads();
```

```
    printf("Number of threads = %d\n", nthreads);
    }

  }  /* All threads join master thread and terminate */

}
```

To compile this code, run the following:

```
gcc -o omp_helloc -fopenmp omp_hello.c
$ export OMP_NUM_THREADS=2
$ ./omp_helloc
Hello World from thread = 0
Hello World from thread = 1
Number of threads = 2
```

Note that the environment variable `OMP_NUM_THREADS` was used to specify number of threads.