CSE4001 - Parallel and Distributed Computing, Fall 2019
Vellore Institute of Technology
Instructor: Prof Deebak B D – SCOPE

Lab report

Title of Lab: Section Clause OpenMP
Assessment #: 6
Date: 02|09|2019

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Lab section: Friday L59 + L60

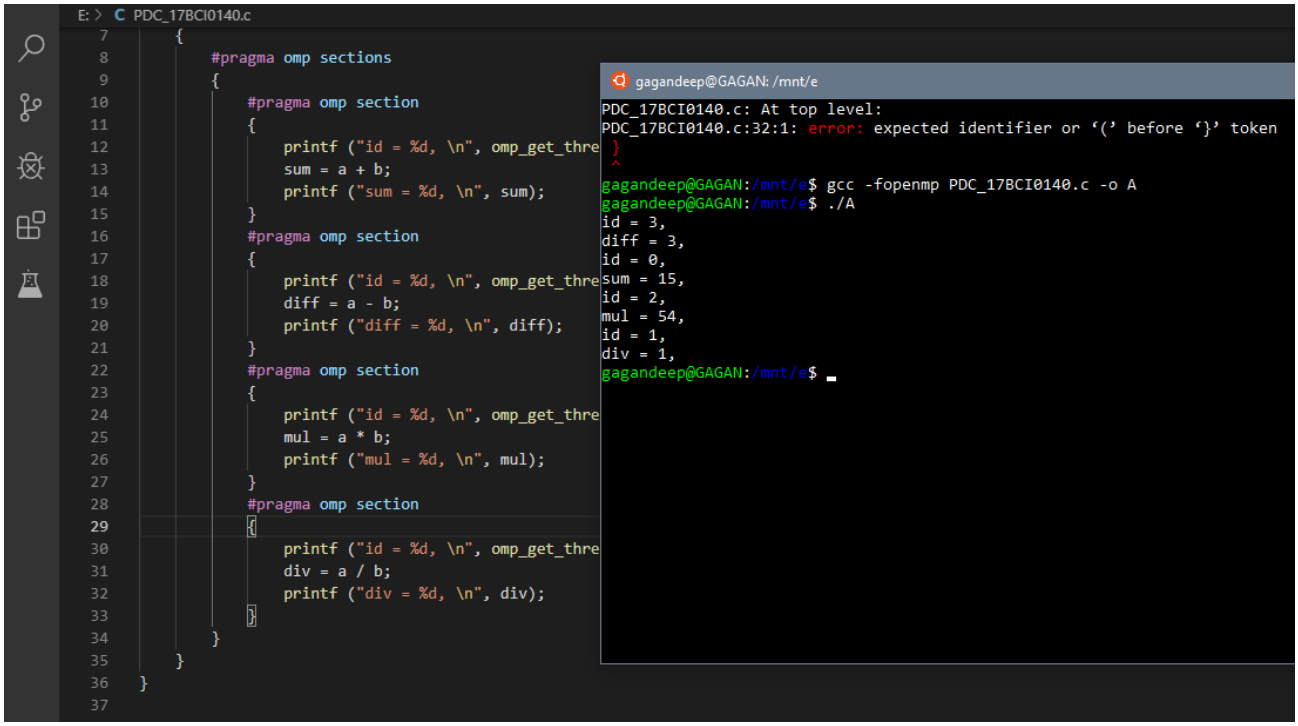
Aim: Write a simple OpenMP program to demonstrate Arithmetic Operation using Section Clause.

SOURCE CODE:

```
#include<stdio.h>
#include<omp.h>
int main(void)
{
    int a = 9, b = 6, sum, diff, mul, div;
    #pragma omp parallel
    {
        #pragma omp sections
        {
            #pragma omp section
            {
                printf ("id = %d, \n", omp_get_thread_num());
                sum = a + b;
                printf ("sum = %d, \n", sum);
            }
            #pragma omp section
            {
                printf ("id = %d, \n", omp_get_thread_num());
                diff = a - b;
                printf ("diff = %d, \n", diff);
            }
            #pragma omp section
            {
                printf ("id = %d, \n", omp_get_thread_num());
                mul = a * b;
                printf ("mul = %d, \n", mul);
            }
            #pragma omp section
            {
                printf ("id = %d, \n", omp_get_thread_num());
                div = a / b;
                printf ("div = %d, \n", div);
            }
```

```
        }
    }
}
```

EXECUTION:


E: > C PDC_17BCI0140.c
{
#pragma omp sections
{
#pragma omp section
{
printf ("id = %d, \n", omp_get_thre
sum = a + b;
printf ("sum = %d, \n", sum);
}
#pragma omp section
{
printf ("id = %d, \n", omp_get_thre
diff = a - b;
printf ("diff = %d, \n", diff);
}
#pragma omp section
{
printf ("id = %d, \n", omp_get_thre
mul = a * b;
printf ("mul = %d, \n", mul);
}
#pragma omp section
{
printf ("id = %d, \n", omp_get_thre
div = a / b;
printf ("div = %d, \n", div);
}
}
}
}
gagandeep@GAGAN: /mnt/e
PDC_17BCI0140.c: At top level:
PDC_17BCI0140.c:32:1: error: expected identifier or '(' before '}' token
}
^
gagandeep@GAGAN:/mnt/e$ gcc -fopenmp PDC_17BCI0140.c -o A
gagandeep@GAGAN:/mnt/e$ ./A
id = 3,
diff = 3,
id = 0,
sum = 15,
id = 2,
mul = 54,
id = 1,
div = 1,
gagandeep@GAGAN:/mnt/e$