**Course: High Performance Computing Lab**

**Practical No 2**

**PRN :- 23520006**

**Name : Vivek katkar**

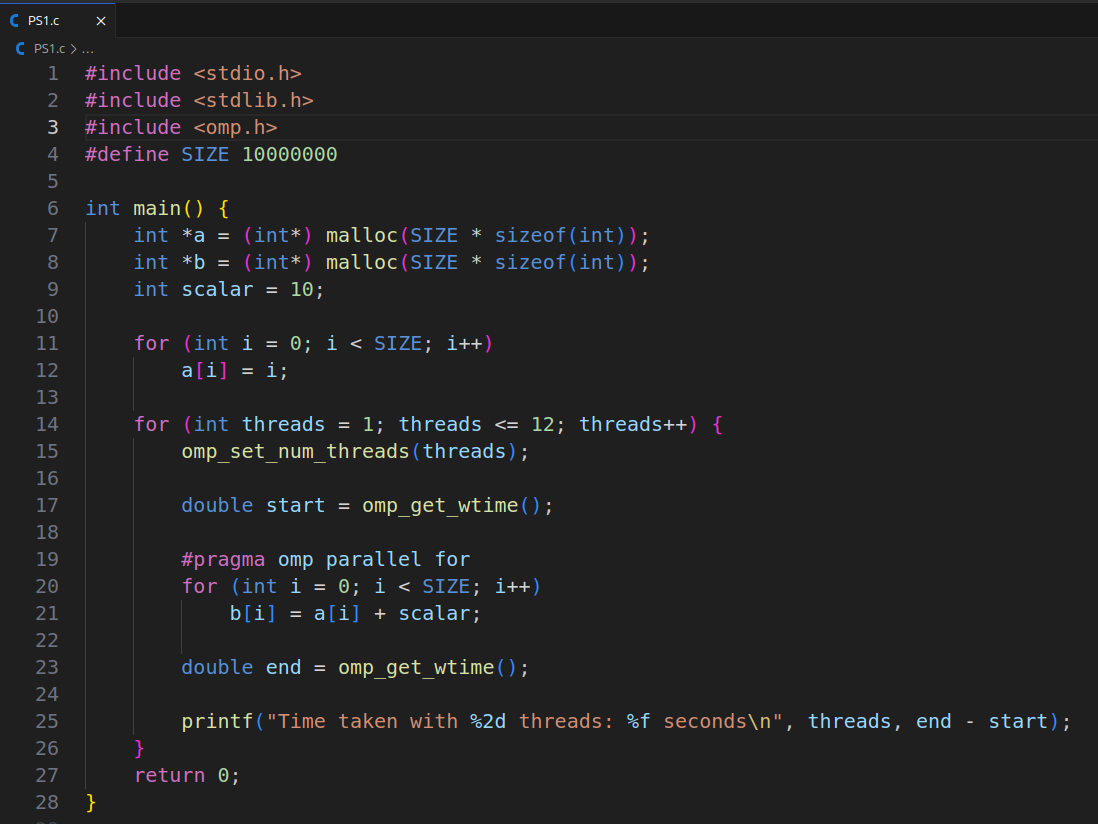
**Batch :- B6**

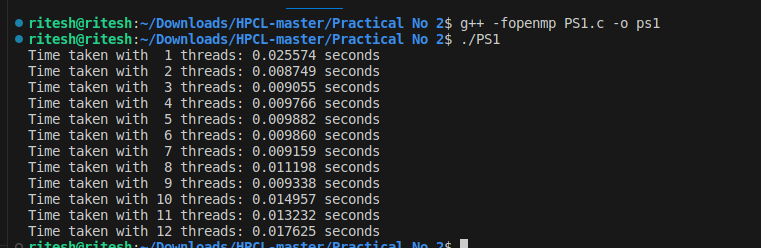
**Title -** Study and implementation of basic OpenMP clauses

Implement following Programs using OpenMP with C programming language.

**Problem Statement 1: Vector Scalar Addition**

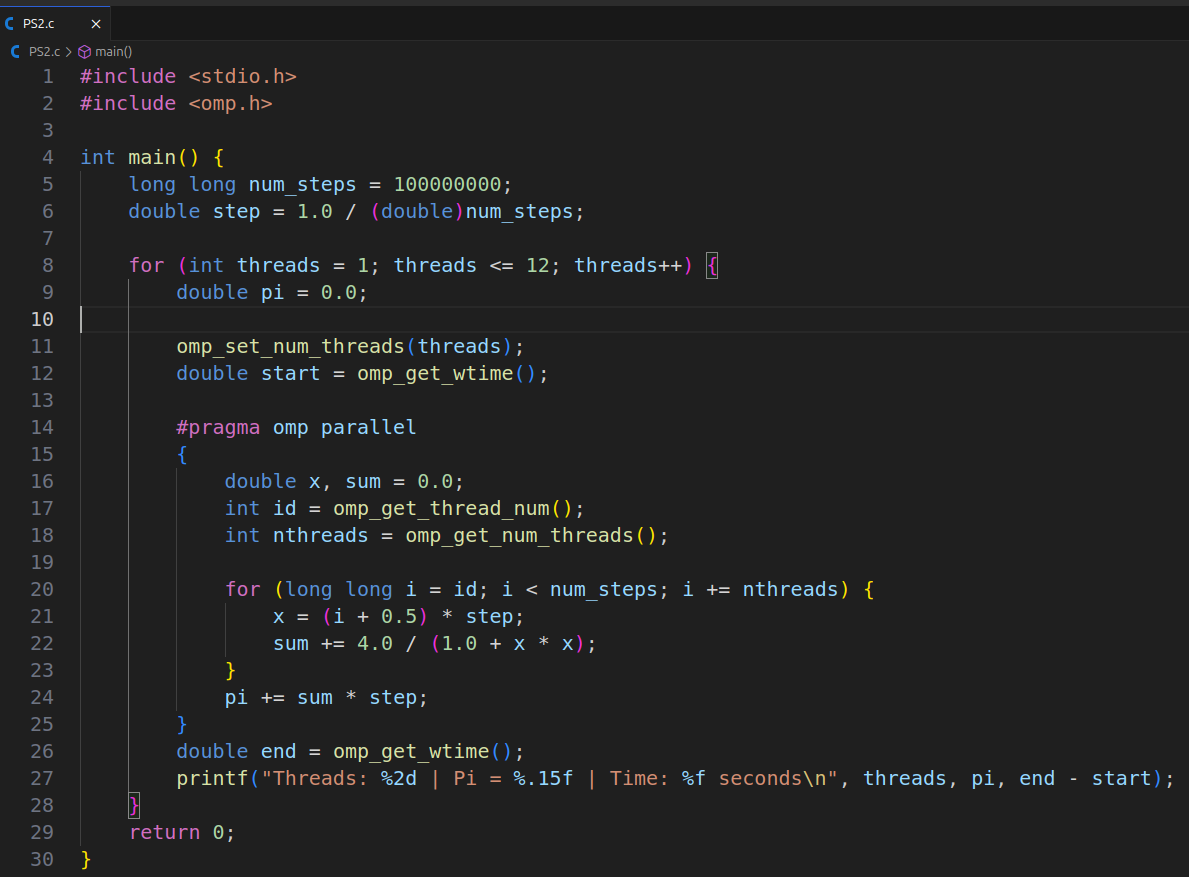
**Screenshots:**

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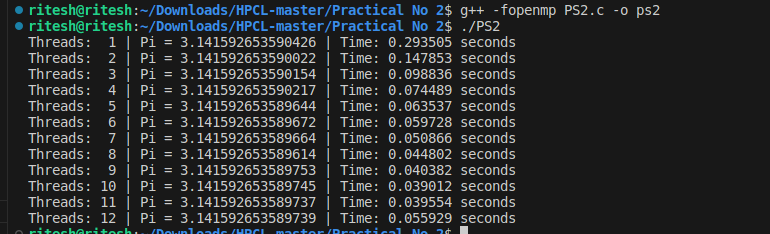
**Information & Analysis : *As we have 6 physcial core so we can see the decrease in time*** *but when we are go in form the 7 to 12 there is slight increase in time the reason is the thread scheduling overhead.*

**Problem Statement 2: Calculation of value of Pi**

**Screenshots:**

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**Information & Analysis: *As we have 6 physcial core so we can see the decrease in time but when we are goin form the 7 to 12 there is slight increase in time the reason is the thread scheduling overhead.***

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**GitHub Link:** <https://github.com/vivekkatkar/HPCL>

**Conclusion :**

This practical demonstrated the use of basic OpenMP clauses to parallelize computations like vector-scalar addition and Pi calculation. The results showed performance improvement up to the number of physical cores, with slight overhead beyond that due to thread scheduling.