

Homework #4

cpe 512

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# Part 1

## Action 1.1

**Table 1: Laplace 2D OpenMP Run Times with NP = 1,2,4,8**



## Action 1.2

**Table 2: Laplace 2D OpenAcc Run Times Using Kernels**



**The average run time has increased dramatically using only the “#pragma acc kernels” on the main loops.**

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**The commented lines “Action 1.2 Change” are the portions of code that were changed for this action item.**

## Action 1.3

**Table 3: Laplace 2D OpenAcc Run Times Using Loop Improvement**



**This is a significant improvement in execution time compared to the OpenMP version even when using 8 CPU cores.**

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**The commented line “Action 1.3 Change” are the portions of code that were changed for this action item.**

## Action 1.4

**Table 4: Table 3: Laplace 2D OpenAcc Run Times Loop Tuning**



**This is a very significant improvement over the OpenMP implementation even when using 8 CPU cores.**

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## Action 1.5

## Action 1.6

## Action 1.7

# Part 2

## Action 2.1

## Action 2.2

# Appendix

Add anything else that might be pertinent to the assignment.