**Class:** Final Year (Computer Science and Engineering)

**Year:** 2022-23 **Semester:** 1

**Course:** High Performance Computing Lab

**Practical No. 9**

**Exam Seat No:**

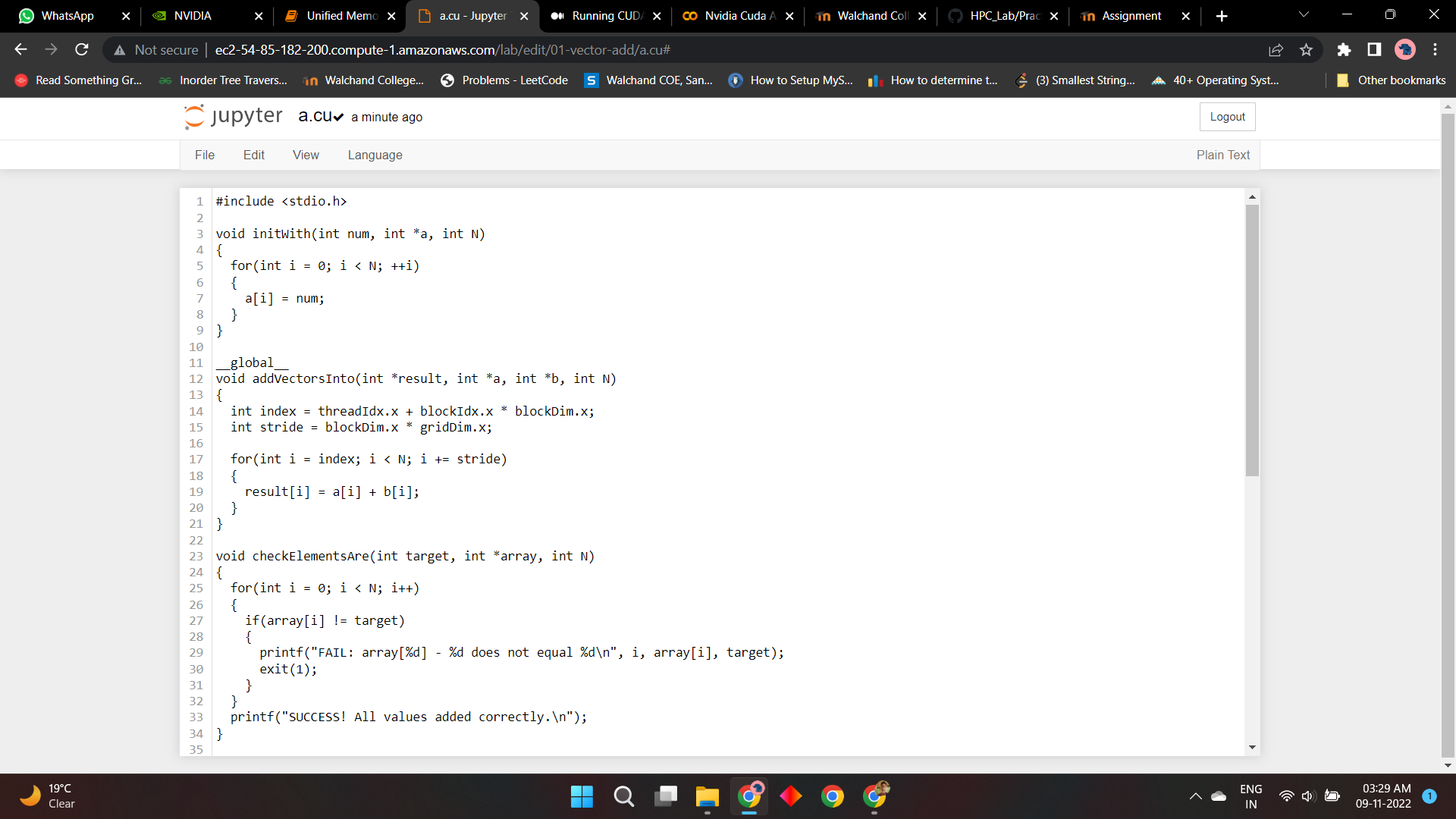
2019BTECS00037 – Onkar Gavali

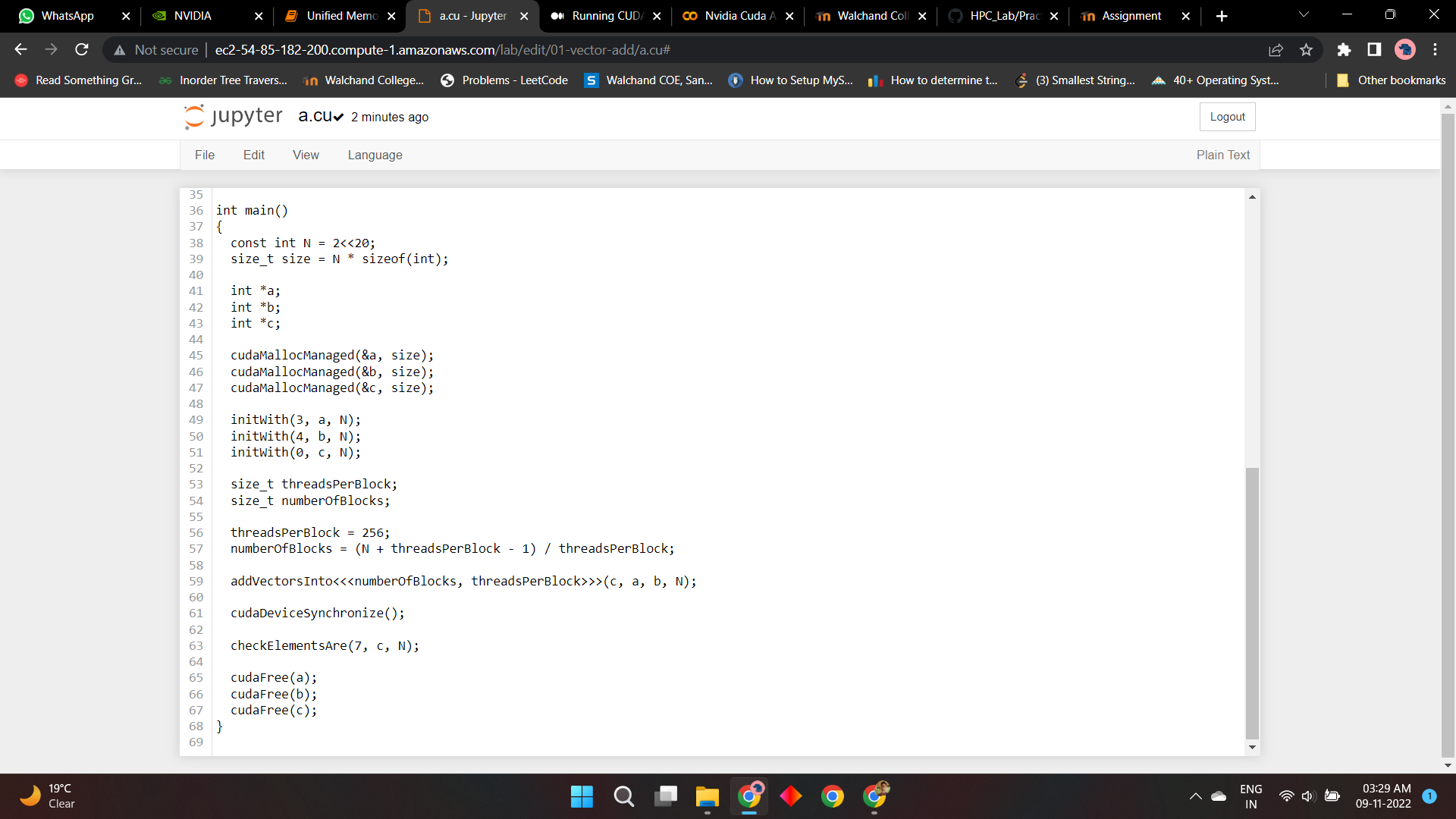
**Title of practical:**

Implementation of Vector-Vector addition & N-Body Simulator using CUDA C

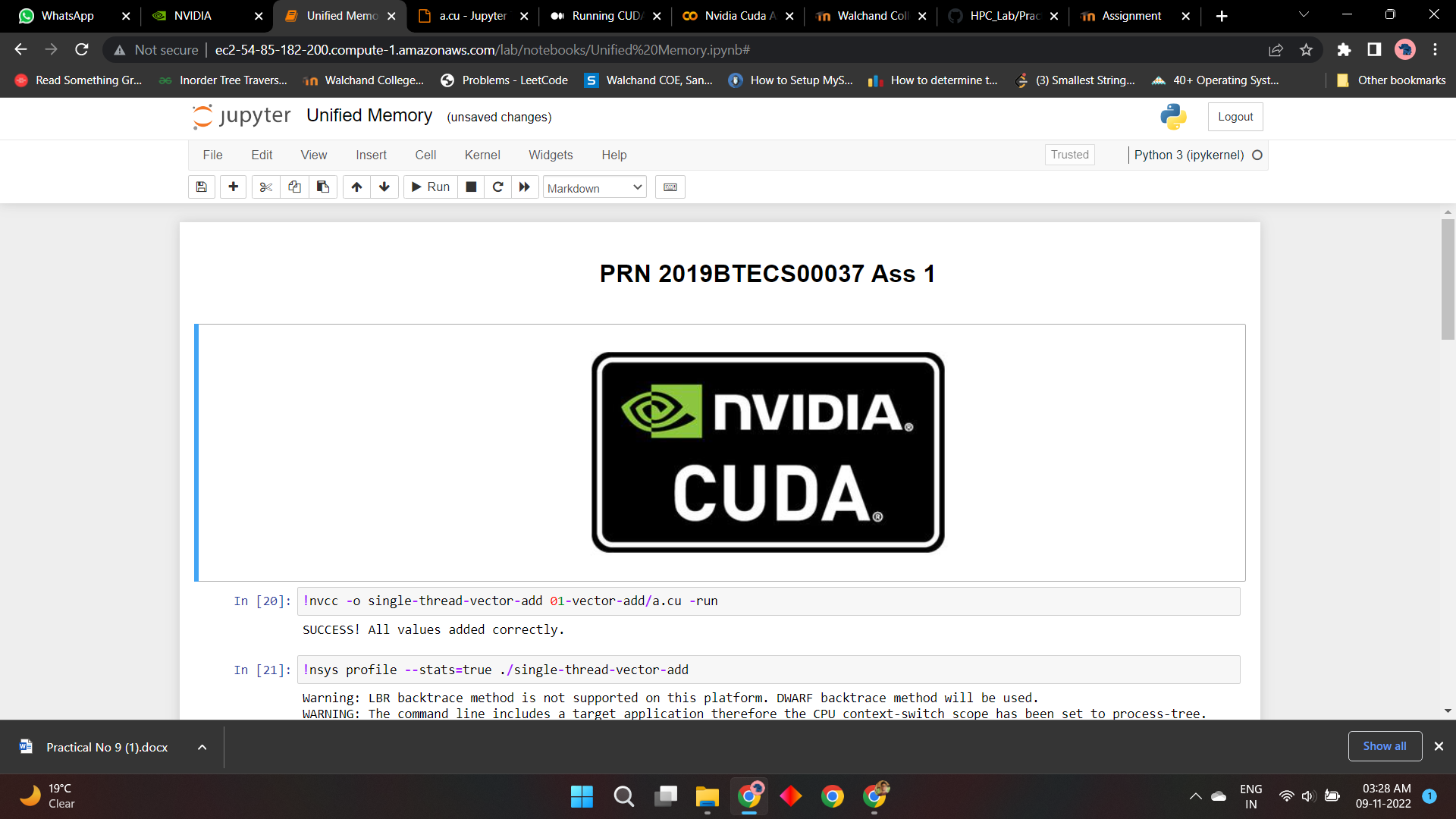
**Problem Statement 1:**

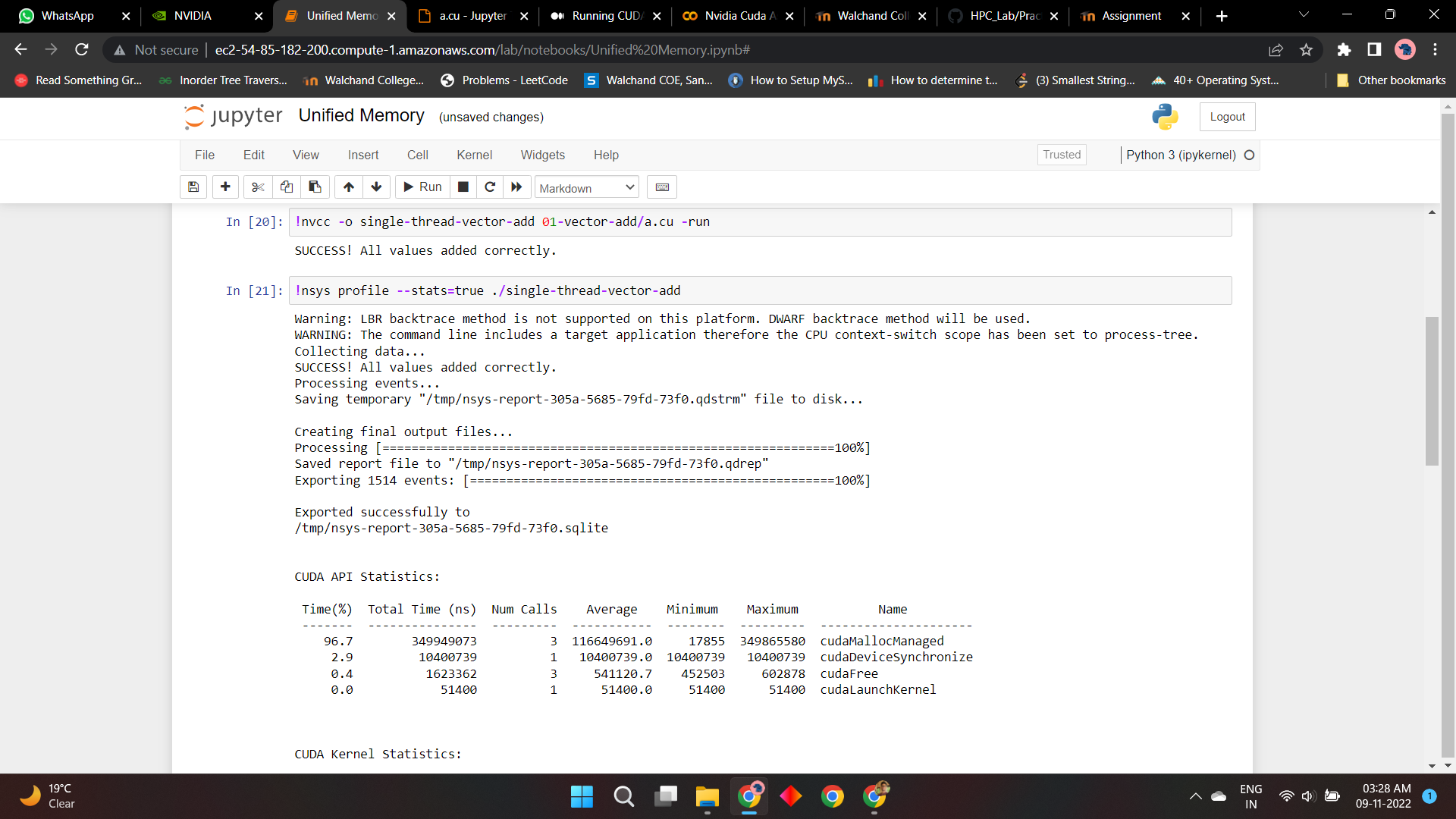
Implement Vector-Vector addition using CUDA C. State and justify the speedup using different size of threads and blocks.

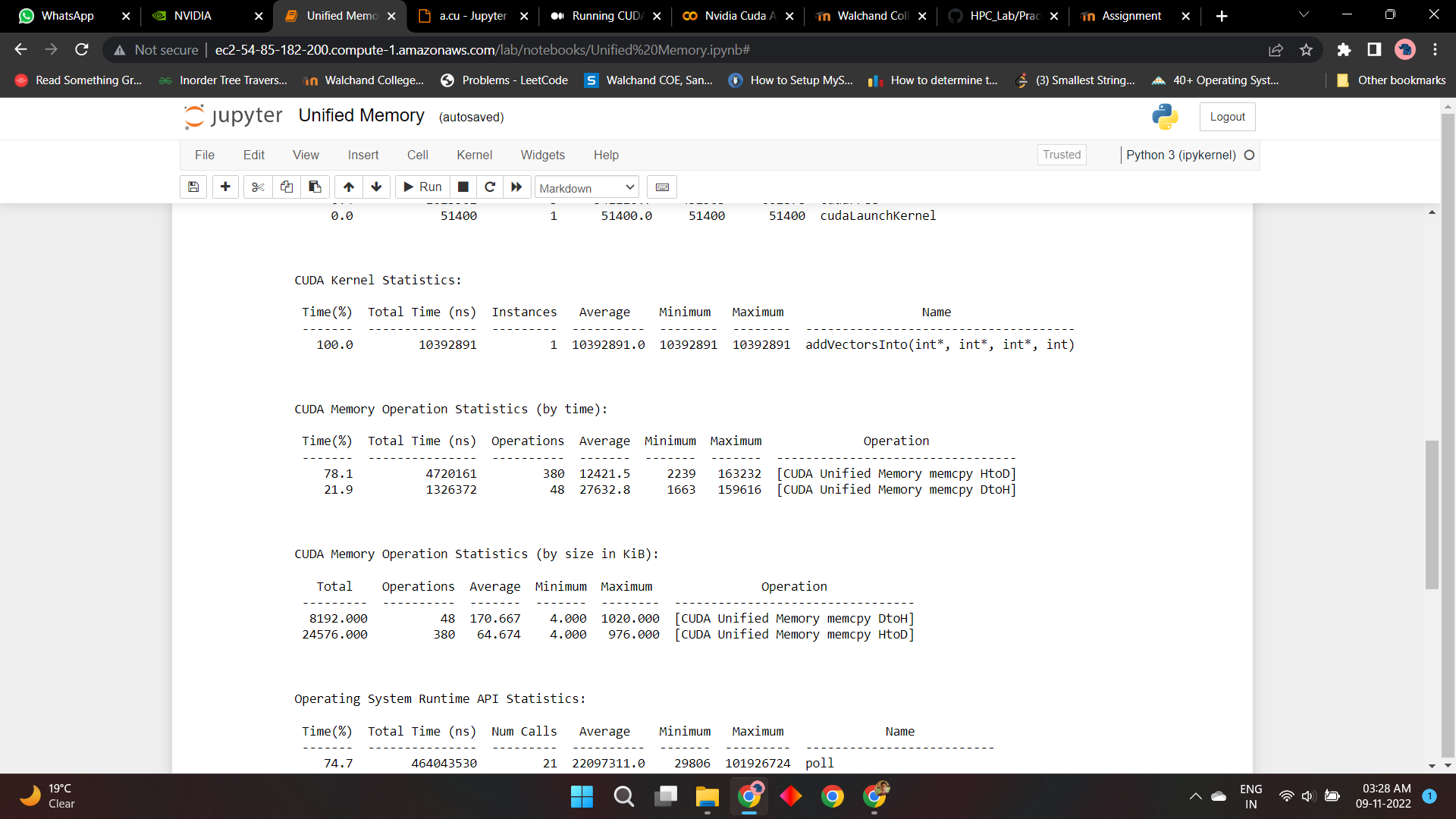
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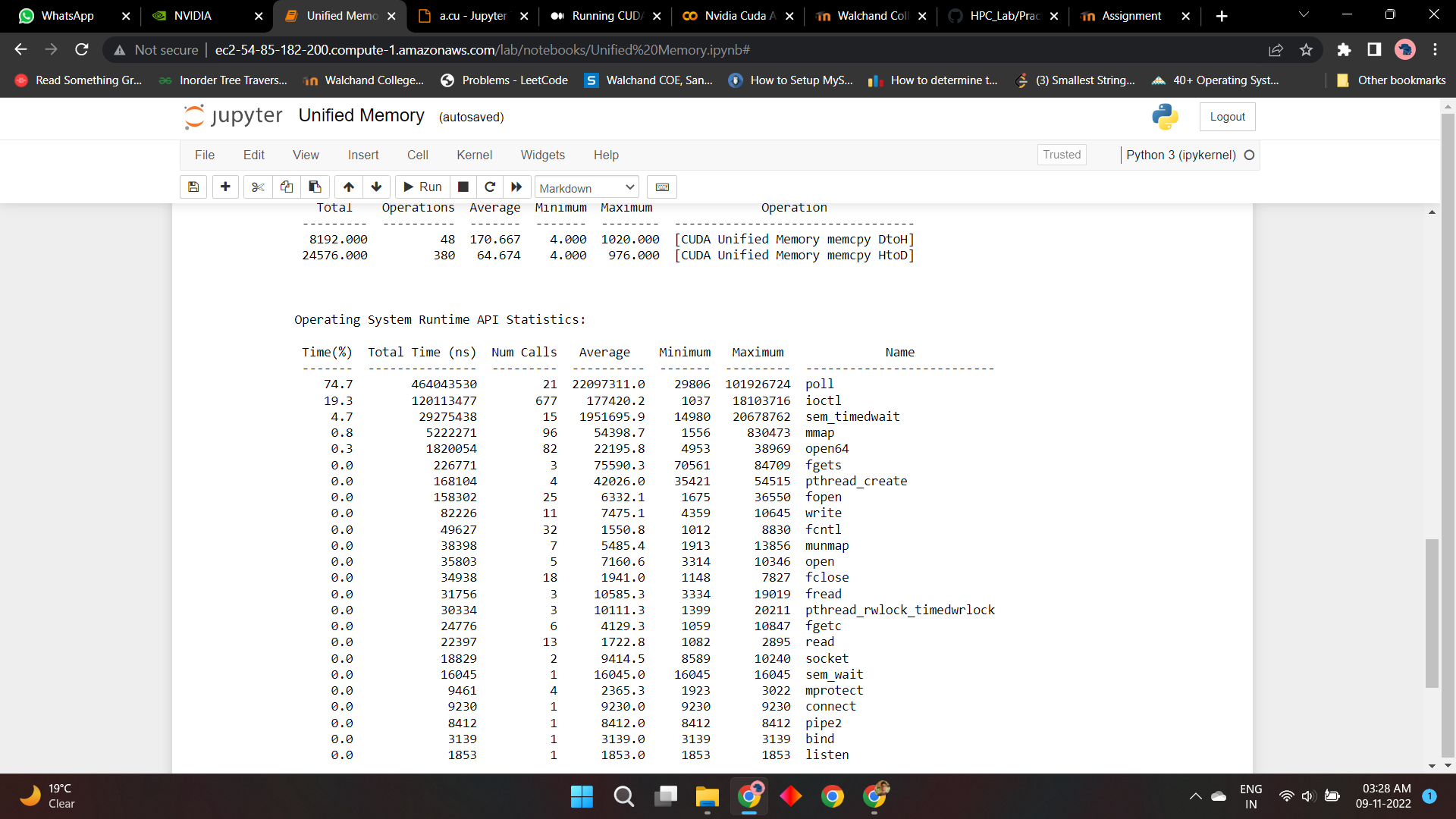
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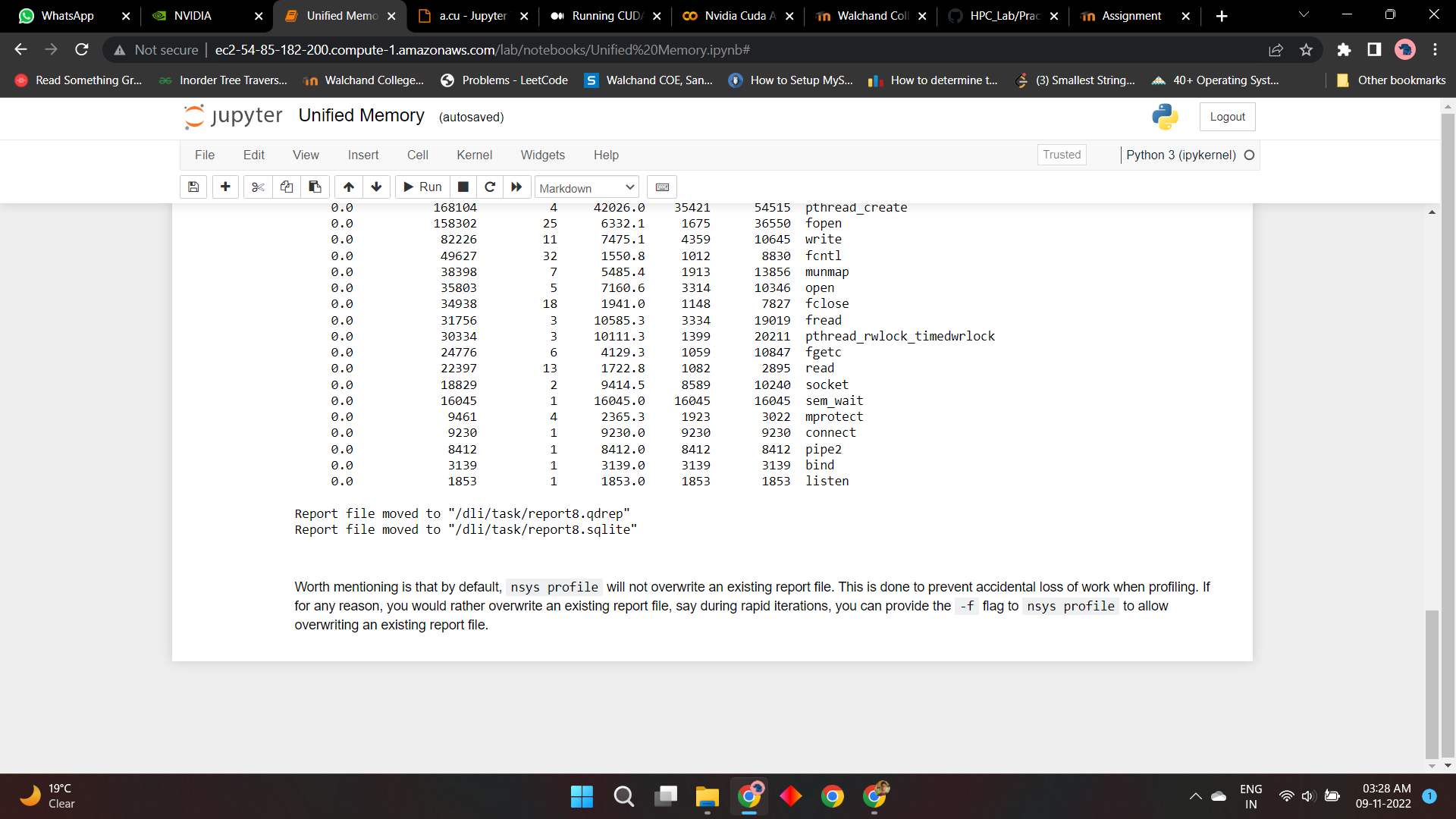
**Answer:**



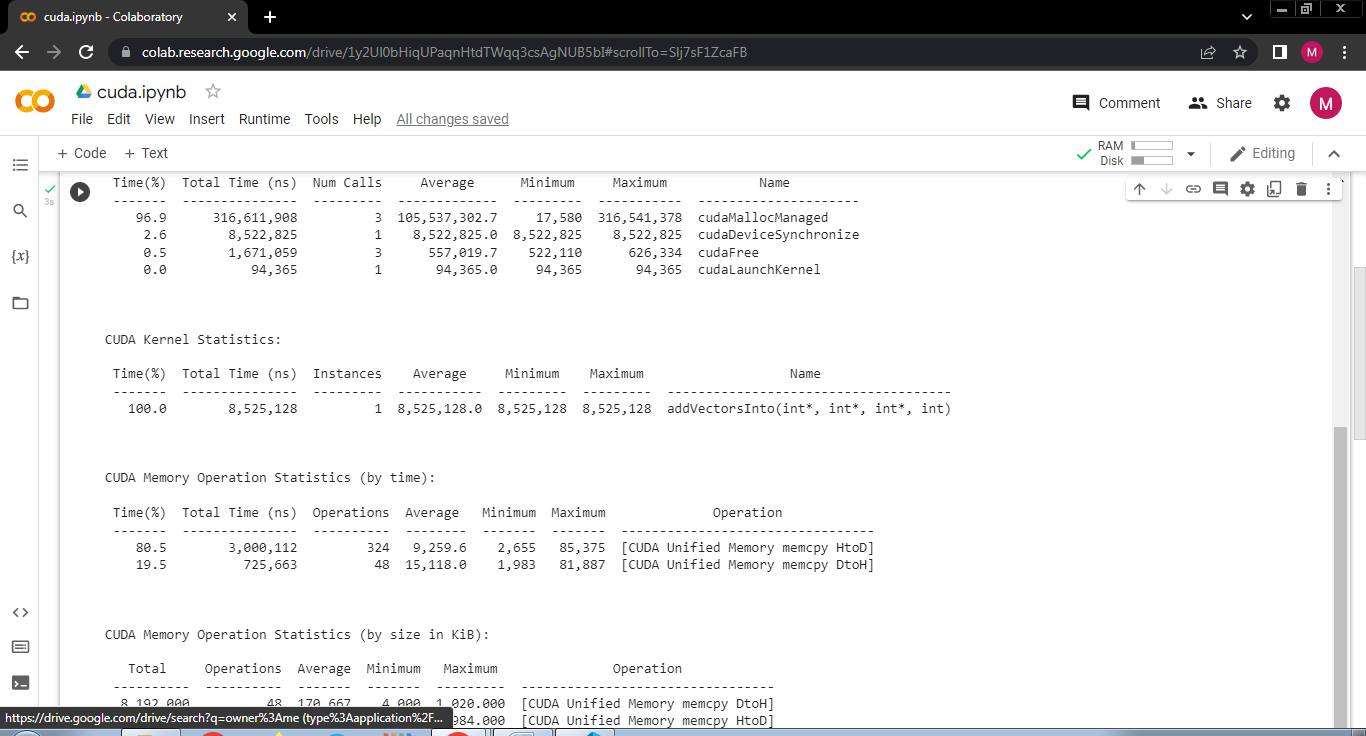






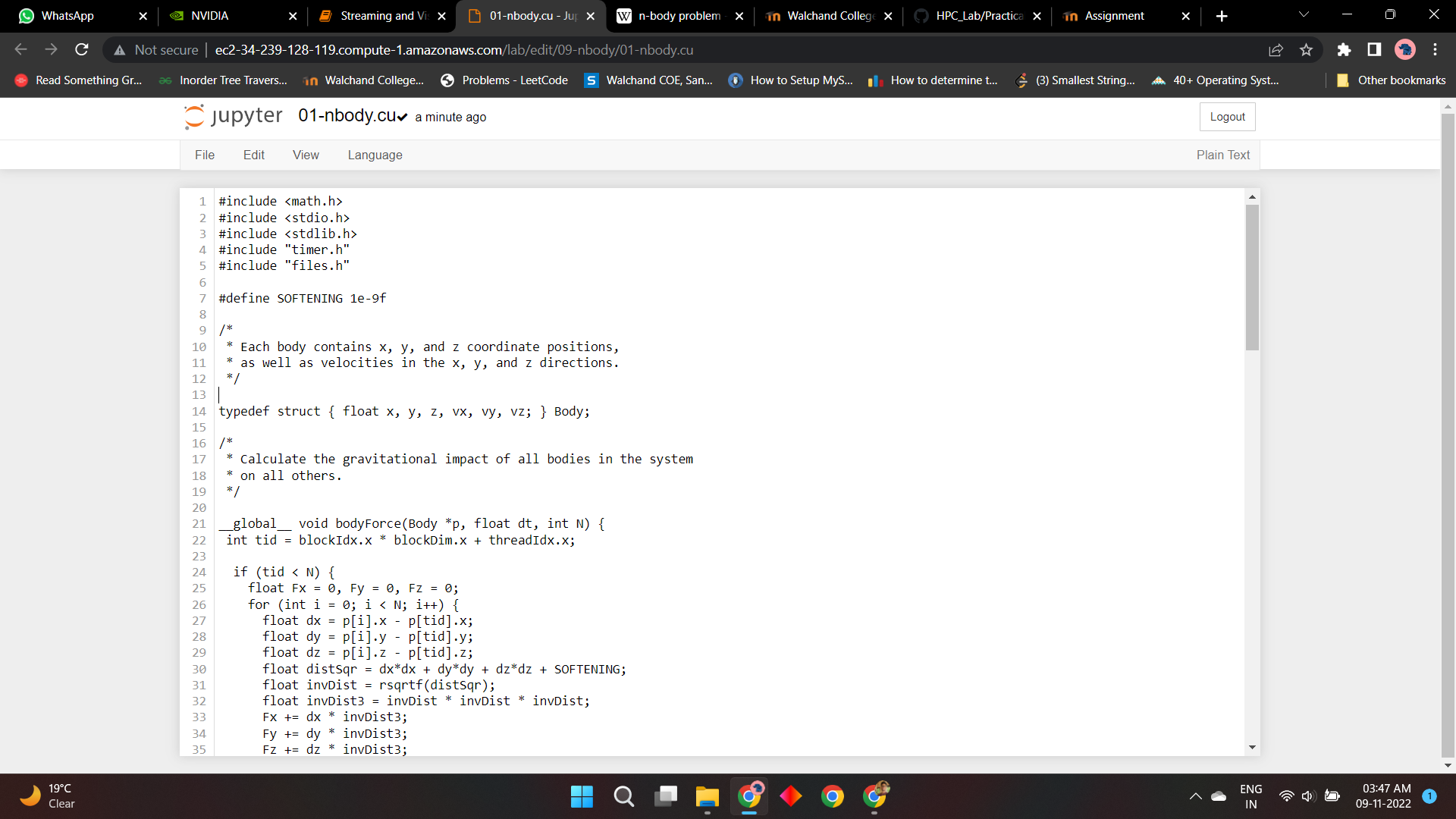


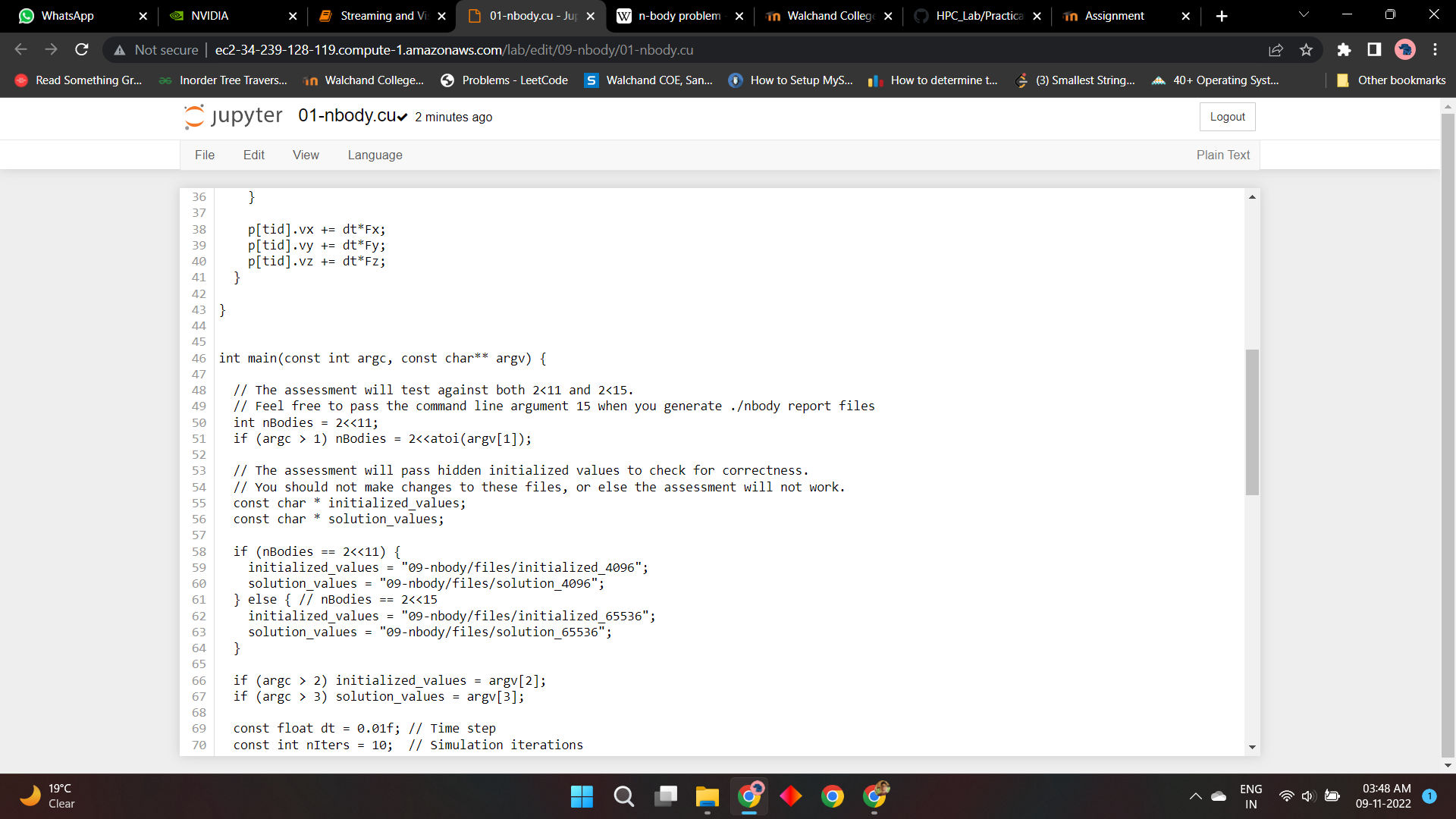
**Screenshot 3:**

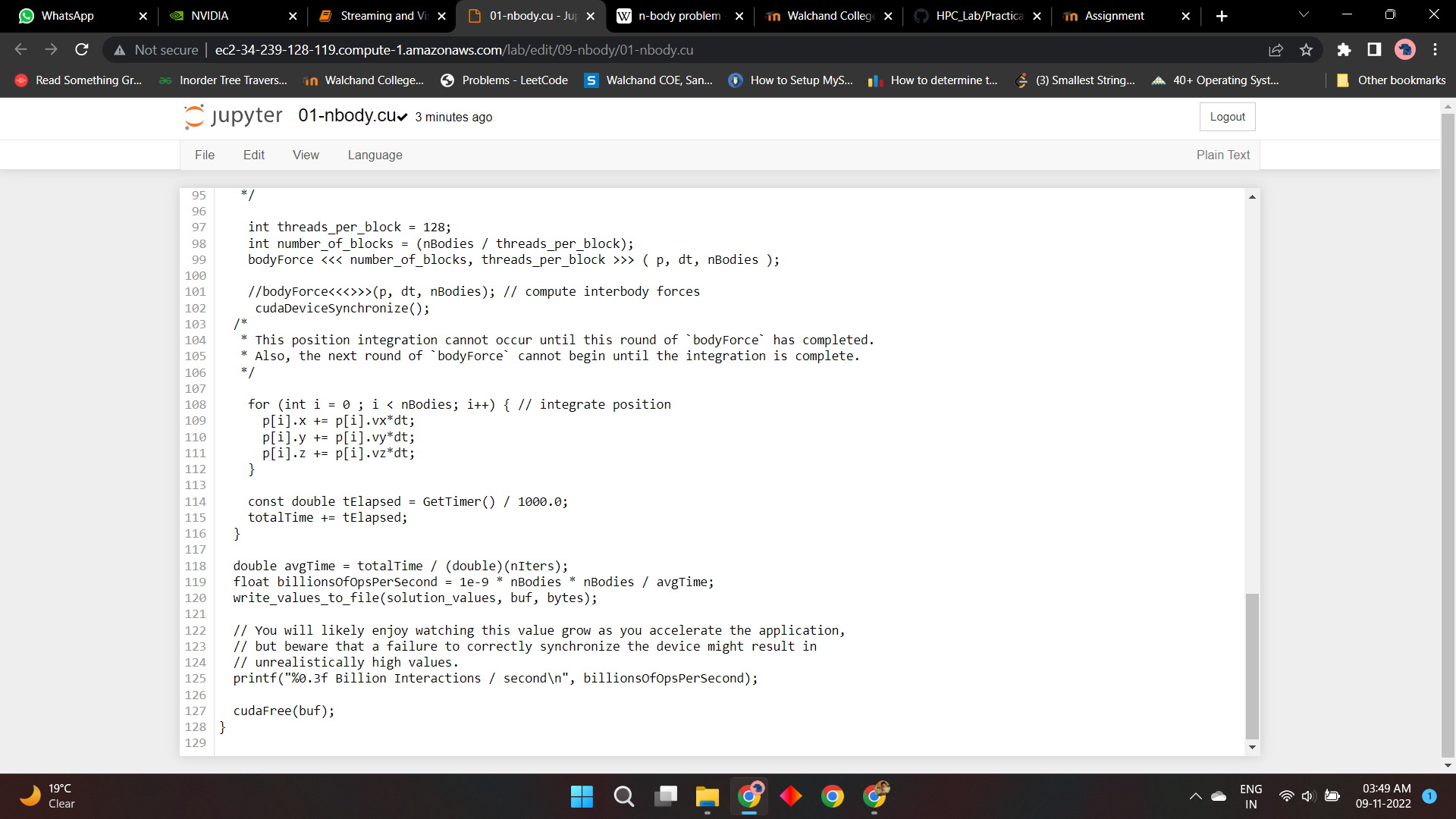
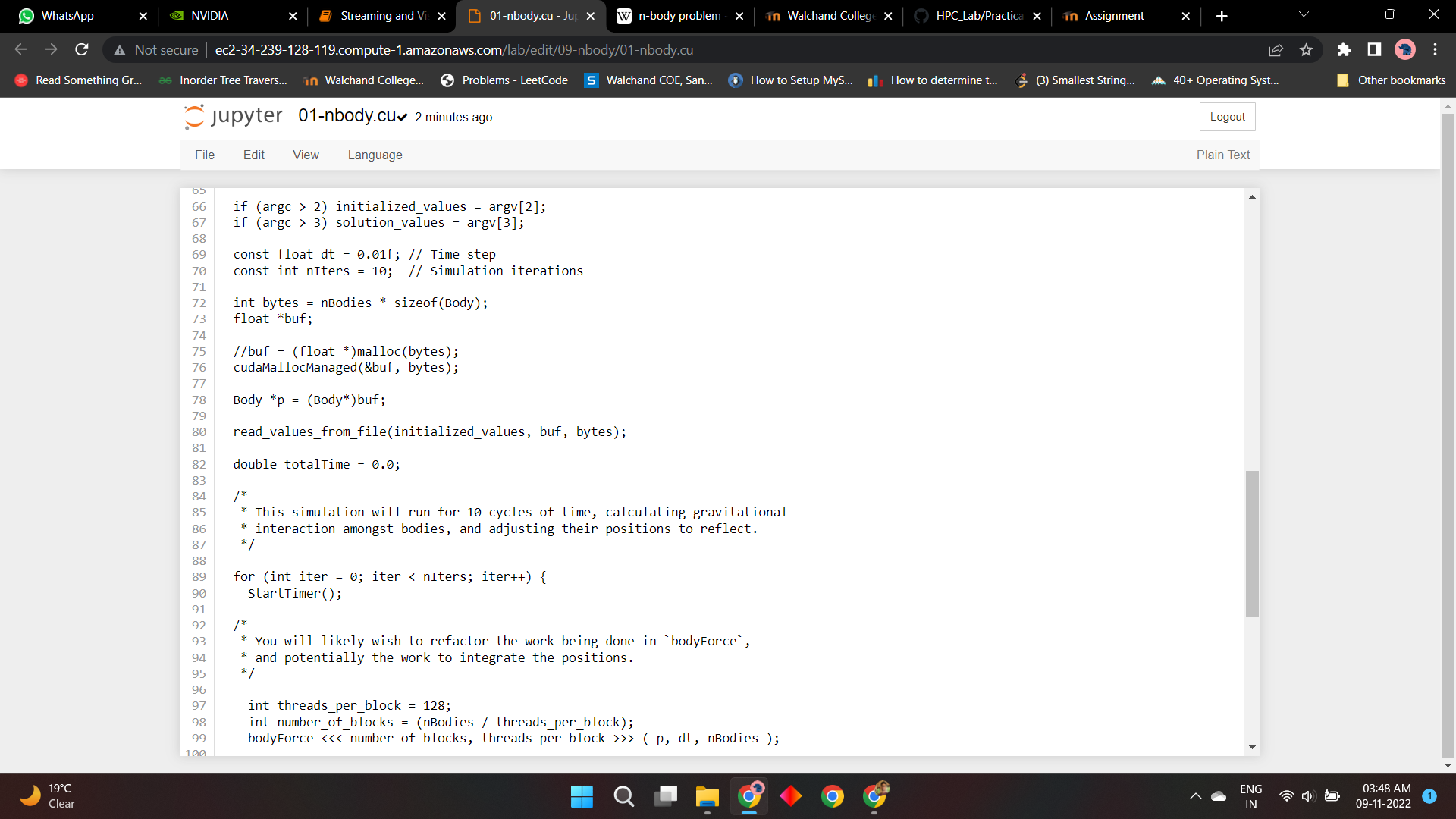
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**Problem Statement 2:**

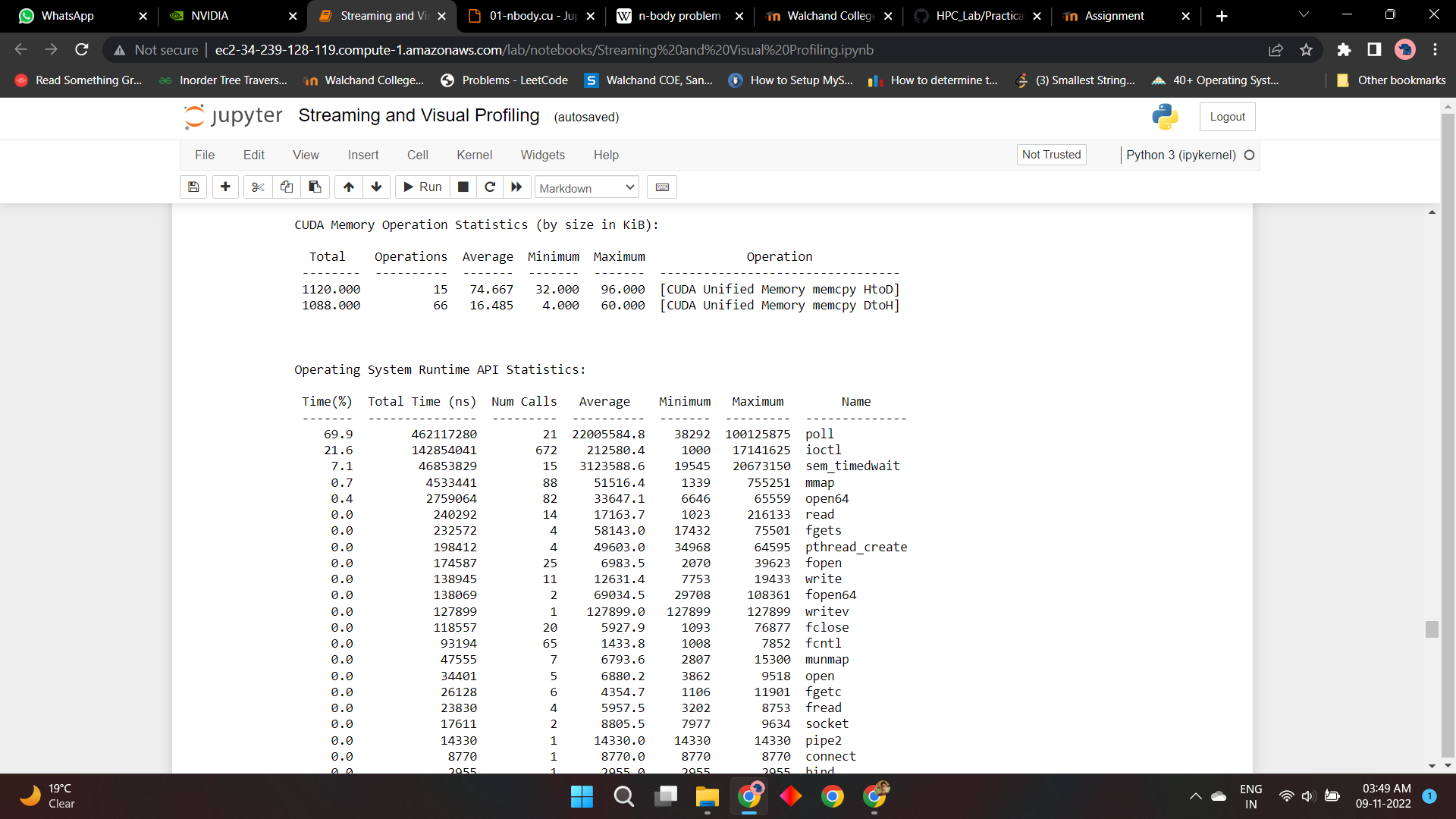
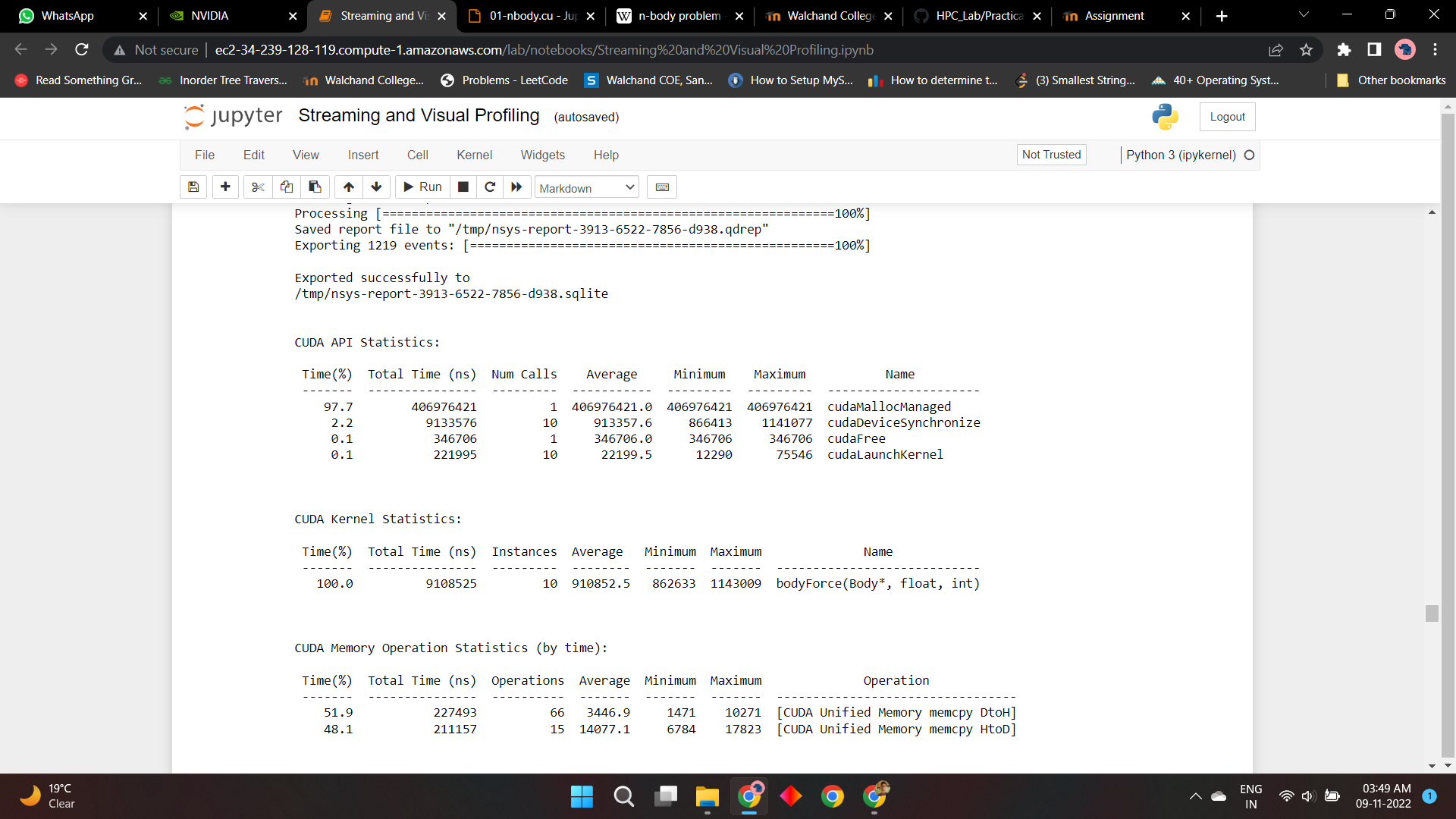
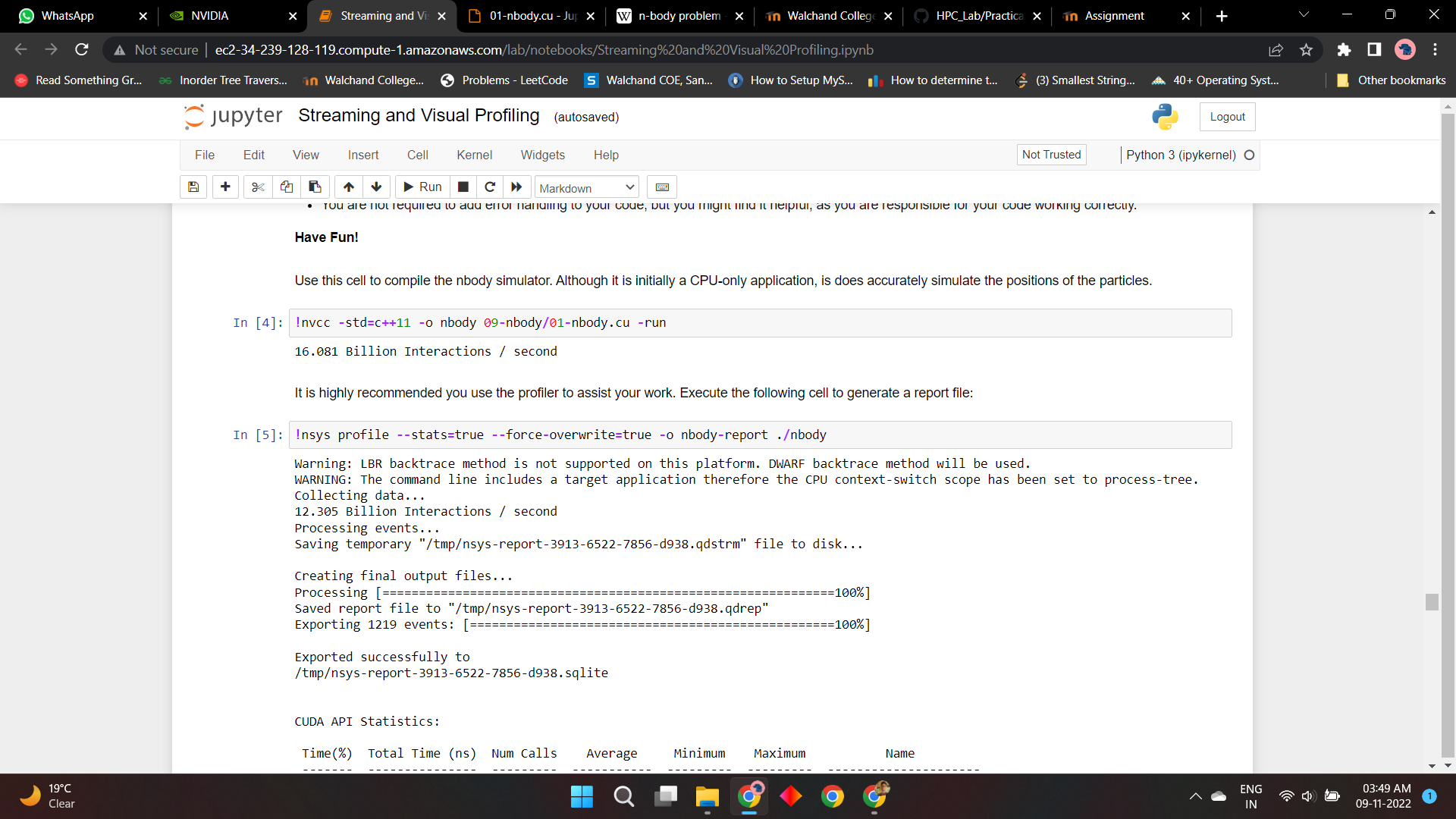
Implement N-Body Simulator using CUDA C. State and justify the speedup using different size of threads and blocks.

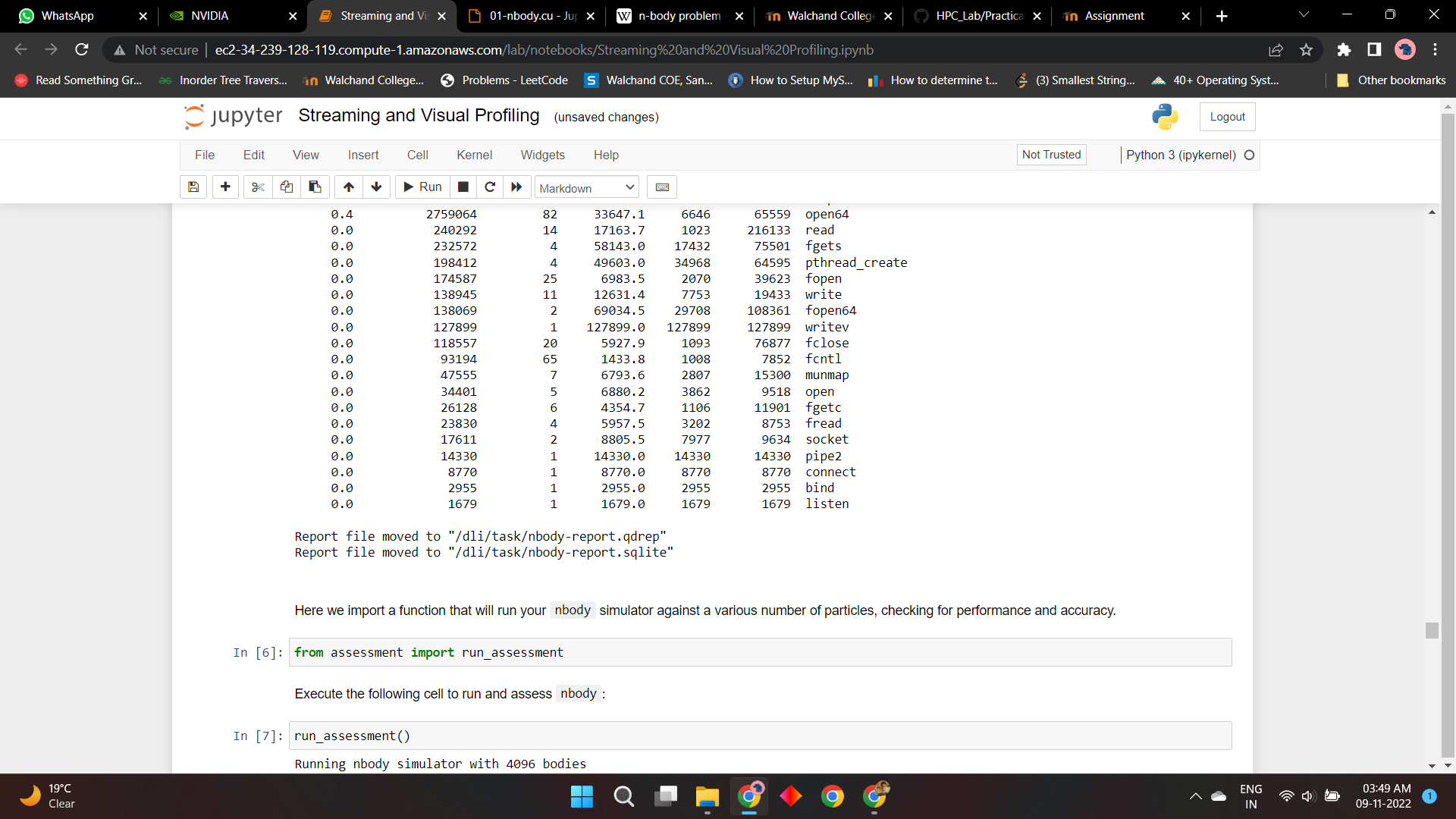
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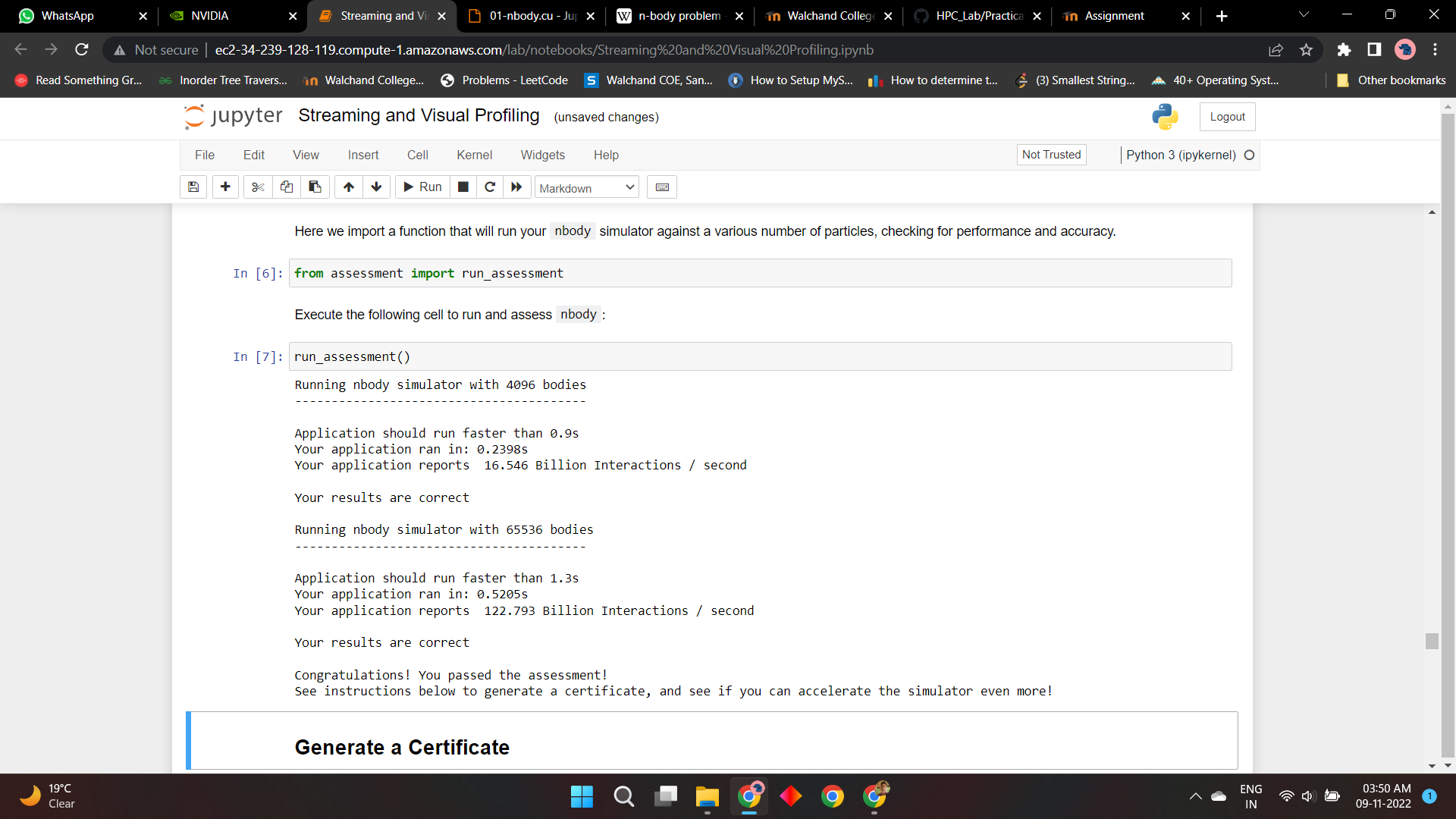




Answer:







**Github Link:**

<https://github.com/OnkarGavali/HPC_Lab/tree/main/Practical_No9>