Python Lab

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COMP 455: Extreme Computing

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**Python Lab**

# Part A:

The code is in file ‘Lab1Team5partA.py’

# Part B:

The code is in file ‘Lab1Team5partB.py’

**Question 1:**

We can estimate the size of the file with 10 billion numbers in the following way:

|  |  |
| --- | --- |
| Numbers | File Size |
| 100 | 392 bytes or 0.38 KB |
| 1000 | 3.80 KB |
| 10000 | 38.1 KB |
| 100000 | 382 KB |
| 1000000 | 3818 KB |

We can see that every 10 times increase in total numbers results in 10 times increase in the size of the file.

Thus, for 10 billion numbers or for 10,000,000,000 numbers, the file size would be (3818 \* 10000) KB or 37,285.15 MB or 36.41 GB

**Note: For Questions 2 to Question 6, run** ‘Lab1Team5partB.py’