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| Parallel and Distributed Computing | Fall 2025 |
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Assignment 1

Marks: 10

**Due on: Sep 6,
2025**

Topics Covered:

- C programs for Parallel programming
- Recording execution time

You are required to write code that creates an array of float values. Inside a loop you will initialize the array (one location at a time) with a random number. The code for random float generation is given. You will record the execution time with different size of the integer array and populate the following table. You will have to run the program multiple times with different input sizes.

1. Submit the populated
2. Submit your .c file

Solution:

| S. Num | Input Size | Execution Time (Sec) |
|--------|------------|----------------------|
| 1 | 100000 | 0.000263 |
| 2 | 500000 | 0.001060 |
| 3 | 1000000 | 0.001631 |
| 4 | 5000000 | 0.009359 |
| 5 | 10000000 | 0.018359 |
| 6 | 50000000 | 0.066869 |
| 7 | 100000000 | 0.156659 |
| 8 | 500000000 | 0.295060 |
| 9 | 1000000000 | 0.490196 |