



UNIVERSITI
TEKNOLOGI
PETRONAS

TEB1113/TFB2023: ALGORITHM & DATA STRUCTURE

Homework 1

Prepared for: Dr. Nordin Zakaria

Num.	Full Name	Student ID	Course
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Homework- Runtime Report

Machine 1

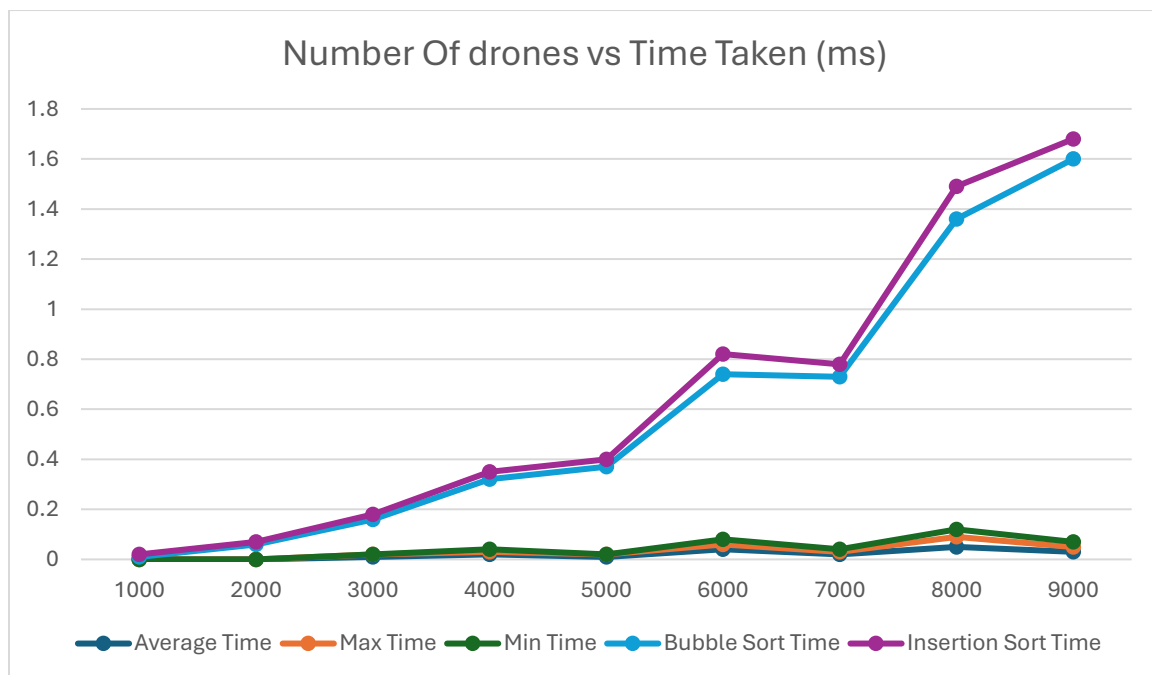
CPU: AMD Ryzen 7 7730U

GPU: AMD Radeon Graphics

RAM: 16GB DDR4

Storage: 512GB

Number of Drones	Average Time	Max Time	Min Time	Bubble Sort Time	Insertion Sort Time
1000	0	0	0	1.58	0.01
2000	0	0	0	6.35	0.01
3000	0.01	0.01	0	14.3	0.02
4000	0.02	0.01	0.01	28.08	0.03
5000	0.01	0.01	0	35.83	0.03
6000	0.04	0.02	0.02	66.09	0.08
7000	0.02	0.01	0.01	69.54	0.05
8000	0.05	0.04	0.03	124.45	0.13
9000	0.03	0.02	0.02	153.93	0.08



Machine 2

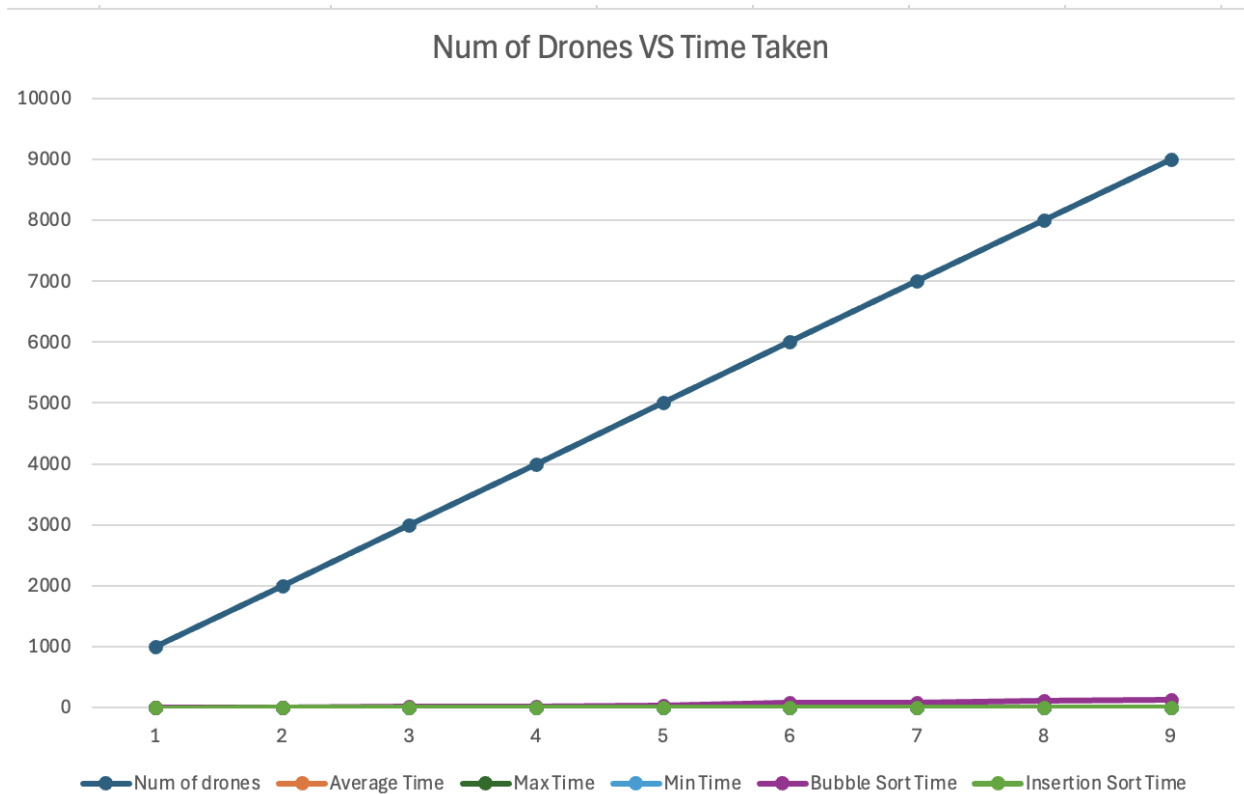
CPU: Apple M1 Chip

GPU: 8 core GPU

RAM: 8 GB

Storage: 245.11 GB

Num of drones	Average Time	Max Time	Min Time	Bubble Sort Time	Insertion Sort Time
1000	0	0	0	1.33	0
2000	0	0	0	5.28	0.01
3000	0	0	0	12.45	0.01
4000	0.01	0	0	22.93	0.03
5000	0.01	0	0	32.1	0.03
6000	0.02	0.02	0.02	74.32	0.05
7000	0.01	0.01	0.01	77.23	0.04
8000	0.02	0.02	0.02	115.13	0.07
9000	0.02	0.02	0.02	124.65	0.07



Machine 3

CPU: AMD Ryzen 5 8645HS

GPU: NVIDIA GeForce RTX 4050

RAM: 16GB DDR4

Storage: 512GB

Number of Drones	Average Time	Max Time	Min Time	BubbleSort Time	Insertion Sort Time
1000	0	0	0	1.41	0.01
2000	0	0	0	5.76	0.01
3000	0.01	0	0	12.88	0.02
4000	0.02	0.01	0.01	26.43	0.03
5000	0.01	0	0	35.19	0.03
6000	0.04	0.02	0.02	62.43	0.05
7000	0.02	0.01	0.01	68.93	0.04
8000	0.04	0.02	0.02	118.17	0.07
9000	0.04	0.03	0.03	142.73	0.15

