

# Assignment – 2 (Group Assignment)

Sample template

Group members:

Name	ABC 123
Nikolas Romero	qri117
Nathaniel Hughes	lxb542

## Coordinators Table

Email about the meeting was send: Student Name – emailed group member on 16<sup>th</sup> Sep

- Meeting on 17<sup>th</sup> Sep (online or In-person at 1:00 PM – 1:30 PM)

Meeting date	Purpose or discussion in meeting	Absent student or any other issue
9/26/25	Discuss each others tasks	None

Group Members – Work distribution

Name	Assigned work & Date	Assigned work deadline	Comments (if any)
Nikolas	Linear search bubble sort	9/27/25	N/A
Nathaniel	Merge Sort Quick Sort	9/27/25	N/A

Binary Search

Table.1: Linear Search	
Number to search	Time (sec)
1	0.00061660 seconds
500	0.00020420 seconds
900	0.00041860 seconds

Table.2: Sorting	
Sorting Algorithm	Time (sec)
Bubble Sort	0.02602260 seconds
Merge Sort	0.00650820 seconds
Quick Sort (Pivot as first index value)	0.00222480 seconds

Table.3: Binary Search	
Number	Time (sec)
1	0.001280 seconds
500	0.00130 seconds
900	0.001160 seconds

Table.4: Result												
Algorithm	Time (sec) for # 1				Time (sec) for # 500				Time (sec) for # 900			
Linear Search	0.00061660				0.00020420				0.00041860			
Binary Search	Bubble	Merge	Quick	Best	Bubble	Merge	Quick	Best	Bubble	Merge	Quick	Best
	4.1	4.2	4.3		4.4	4.5	4.6		4.7	4.8	4.9	

Based on the experiment the best (in term of time) is: Quick Sort + Binary Search

4.1 - 0.0273026

4.2 - 0.0077882

4.3 - 0.0035048

BEST - Quick Sort + Binary Search

4.4 - 0.0273226

4.5 - 0.0078082

4.6 - 0.0035248

BEST - Quick Sort + Binary Search

4.7 - 0.0271826

4.8 - 0.0076682

4.9 - 0.0033848