

Universidad Autónoma de Santo Domingo (UASD)

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# Asignatura: INF5260 Estructura De Datos

Sección: Z01

# Maestro Asignado: Silverio Del Orbe Abad

## **Tema**: Tarea 4.3

## **Fecha de Entrega**:Martes, 07 de Noviembre de 2023

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## Especificaciones de mi PC

|  |  |
| --- | --- |
| Nombre del SO | Microsoft Windows 11 Pro |
| Fabricante del sistema | Gigabyte Technology Co., Ltd. |
| Modelo del sistema | B550M DS3H |
| Tipo de sistema | PC basado en x64 |
| Procesador | AMD Ryzen 5 5600X 6-Core Processor, 3701 Mhz, 6 procesadores principales, 12 procesadores lógicos |
| Memoria física instalada (RAM) | 16.0 GB |
| Almacenamiento | 1024 GB NVME M.2 Hypertec |
| GPU | NVIDIA 1650 4GB |

## 

## Tabla de Eficiencia de Algoritmos de Búsqueda y Ordenamiento

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Tiempo en ms** | | | | | |
| **Cant. Datos** | **Selection sort** | **Merge sort** | **Quick sort** | **Insertion sort** | **Bubble sort** | **Counting sort** |
| 10000.00 | 143.00 | 129.00 | 115.00 | 97.00 | 304.00 | 0.50 |
| 20000.00 | 570.00 | 297.00 | 264.00 | 402.00 | 1298.00 | 1.00 |
| 30000.00 | 1286.00 | 555.00 | 490.00 | 925.00 | 3196.00 | 1.00 |
| 40000.00 | 2366.00 | 1130.00 | 733.00 | 1673.00 | 6008.00 | 1.00 |
| 50000.00 | 3553.00 | 1583.00 | 1431.00 | 2635.00 | 9681.00 | 2.00 |
| 60000.00 | 5160.00 | 2578.00 | 1990.00 | 3866.00 | 14191.00 | 2.00 |
| 70000.00 | 6965.00 | 6744.00 | 3202.00 | 5286.00 | 19292.00 | 2.00 |
| 80000.00 | 9142.00 | 8730.00 | 5629.00 | 6850.00 | 24731.00 | 2.00 |
| 90000.00 | 11555.00 | 13342.00 | 7046.00 | 8604.00 | 31113.00 | 3.00 |
| 100000.00 | 14147.00 | 18273.00 | 9678.00 | 10249.00 | 37840.00 | 3.00 |
| 200000.00 | 56658.00 | 76335.00 | 48391.00 | 28728.00 | 122674.00 | 7.00 |
| 300000.00 | 127471.00 | 167006.00 | 116608.00 | 47838.00 | 236776.00 | 10.00 |
| 400000.00 | 225841.00 | 294039.00 | 201196.00 | 67173.00 | 379657.00 | 16.00 |
| 500000.00 | 352811.00 | 367548.00 | 251495.00 | 86104.00 | 474571.00 | 19.00 |
| 600000.00 | 508164.00 | 441058.00 | 301794.00 | 103324.00 | 569485.00 | 24.00 |
| 700000.00 | 592858.00 | 514568.00 | 352093.00 | 120545.00 | 664399.00 | 26.00 |
| 800000.00 | 677552.00 | 588078.00 | 402392.00 | 137166.00 | 759314.00 | 33.00 |
| 900000.00 | 762246.00 | 661587.00 | 452691.00 | 154987.00 | 854228.00 | 36.00 |
| 1000000.00 | 846940.00 | 735097.00 | 502990.00 | 172208.00 | 949142.00 | 37.00 |
| Average | 221338.32 | 205193.53 | 140012.00 | 50455.79 | 271468.42 | 11.87 |

## Gráfico de la tabla