***Documento de Análisis***

En este documento estara conformado por el análisis de complejidad de cada uno de los requerimientos del Reto 1 y a su vez, las pruebas de tiempos de ejecución de los mismos.

1. **Complejidad de los Algoritmos**

**Req 1.**

**Graphical user interface, text

Description automatically generated**

1

1

**Complejidad:**

**Req 2.**

**Graphical user interface, text, application

Description automatically generated**

1

1

**Complejidad:**

**Req 3.**

**Text

Description automatically generated**

**Complejidad:**

**Req 4.**

**Text

Description automatically generated with medium confidence**

**Complejidad:**

**Req 5.**

**Graphical user interface, text, application

Description automatically generated**

**Complejidad:**

**Req 6.**

1. **Tiempos de Ejecución**

**Req 1.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| % de Muestra  (ARRAYLIST) | Tamaño de la muestra | Insertion Sort [ms] | Shell Sort [ms] | Quick Sort [ms] | Merge Sort [ms] |
| 0,50% |  |  |  |  |  |
| 5% |  |  |  |  |  |
| 10% |  |  |  |  |  |
| 20% |  |  |  |  |  |
| 30% |  |  |  |  |  |
| 50% |  |  |  |  |  |
| 80% |  |  |  |  |  |
| 100% |  |  |  |  |  |

**Req 2.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| % de Muestra  (ARRAYLIST) | Tamaño de la muestra | Insertion Sort [ms] | Shell Sort [ms] | Quick Sort [ms] | Merge Sort [ms] |
| 0,50% |  |  |  |  |  |
| 5% |  |  |  |  |  |
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| 100% |  |  |  |  |  |

**Req 3.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| % de Muestra  (ARRAYLIST) | Tamaño de la muestra | Insertion Sort [ms] | Shell Sort [ms] | Quick Sort [ms] | Merge Sort [ms] |
| 0,50% |  |  |  |  |  |
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| 80% |  |  |  |  |  |
| 100% |  |  |  |  |  |

**Req 4.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| % de Muestra  (ARRAYLIST) | Tamaño de la muestra | Insertion Sort [ms] | Shell Sort [ms] | Quick Sort [ms] | Merge Sort [ms] |
| 0,50% |  |  |  |  |  |
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| 30% |  |  |  |  |  |
| 50% |  |  |  |  |  |
| 80% |  |  |  |  |  |
| 100% |  |  |  |  |  |

**Req 5.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| % de Muestra  (ARRAYLIST) | Tamaño de la muestra | Insertion Sort [ms] | Shell Sort [ms] | Quick Sort [ms] | Merge Sort [ms] |
| 0,50% |  |  |  |  |  |
| 5% |  |  |  |  |  |
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| 50% |  |  |  |  |  |
| 80% |  |  |  |  |  |
| 100% |  |  |  |  |  |

**Req 6.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| % de Muestra  (ARRAYLIST) | Tamaño de la muestra | Insertion Sort [ms] | Shell Sort [ms] | Quick Sort [ms] | Merge Sort [ms] |
| 0,50% |  |  |  |  |  |
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| 80% |  |  |  |  |  |
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