Merge sort

A screenshot of a computer

Description automatically generated with medium confidenceText

Description automatically generated

Graphical user interface, application

Description automatically generated

Quick sort

A screenshot of a computer

Description automatically generated with medium confidence

Text

Description automatically generated

Graphical user interface, application

Description automatically generated

Text

Description automatically generatedInsertion sort

Text

Description automatically generated

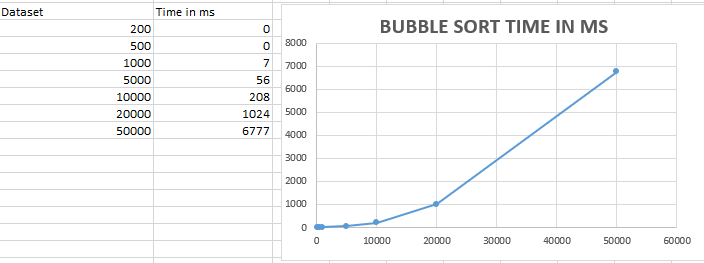
Chart, line chart

Description automatically generated

Text

Description automatically generatedText

Description automatically generatedBubble sort



Text

Description automatically generatedSelection sort

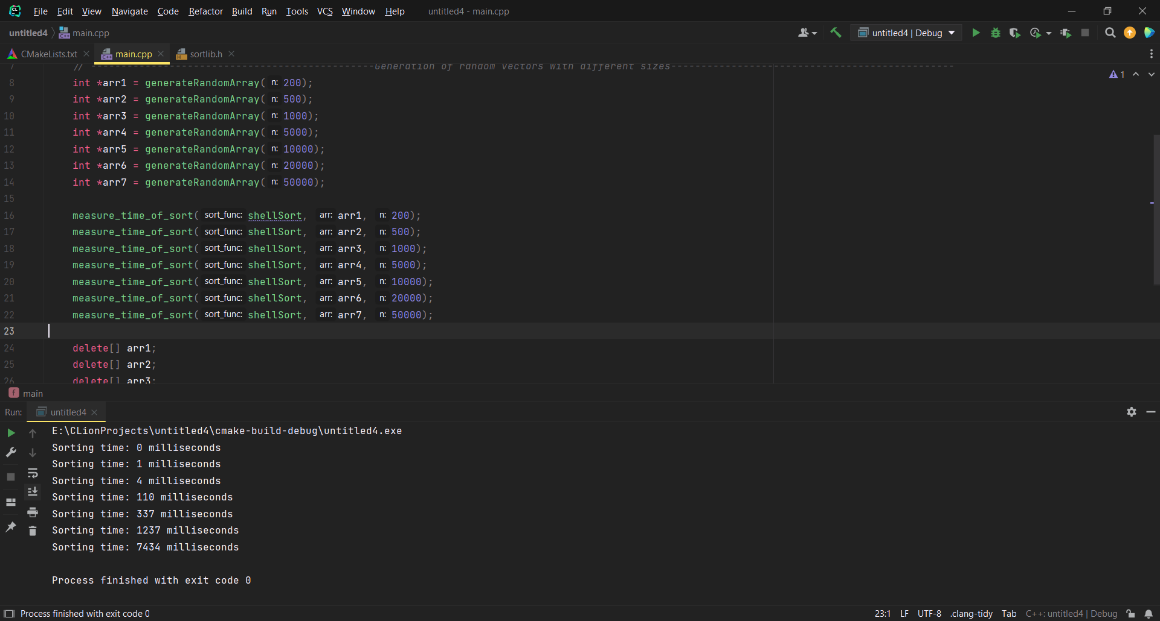
Text

Description automatically generated

Chart, line chart

Description automatically generated

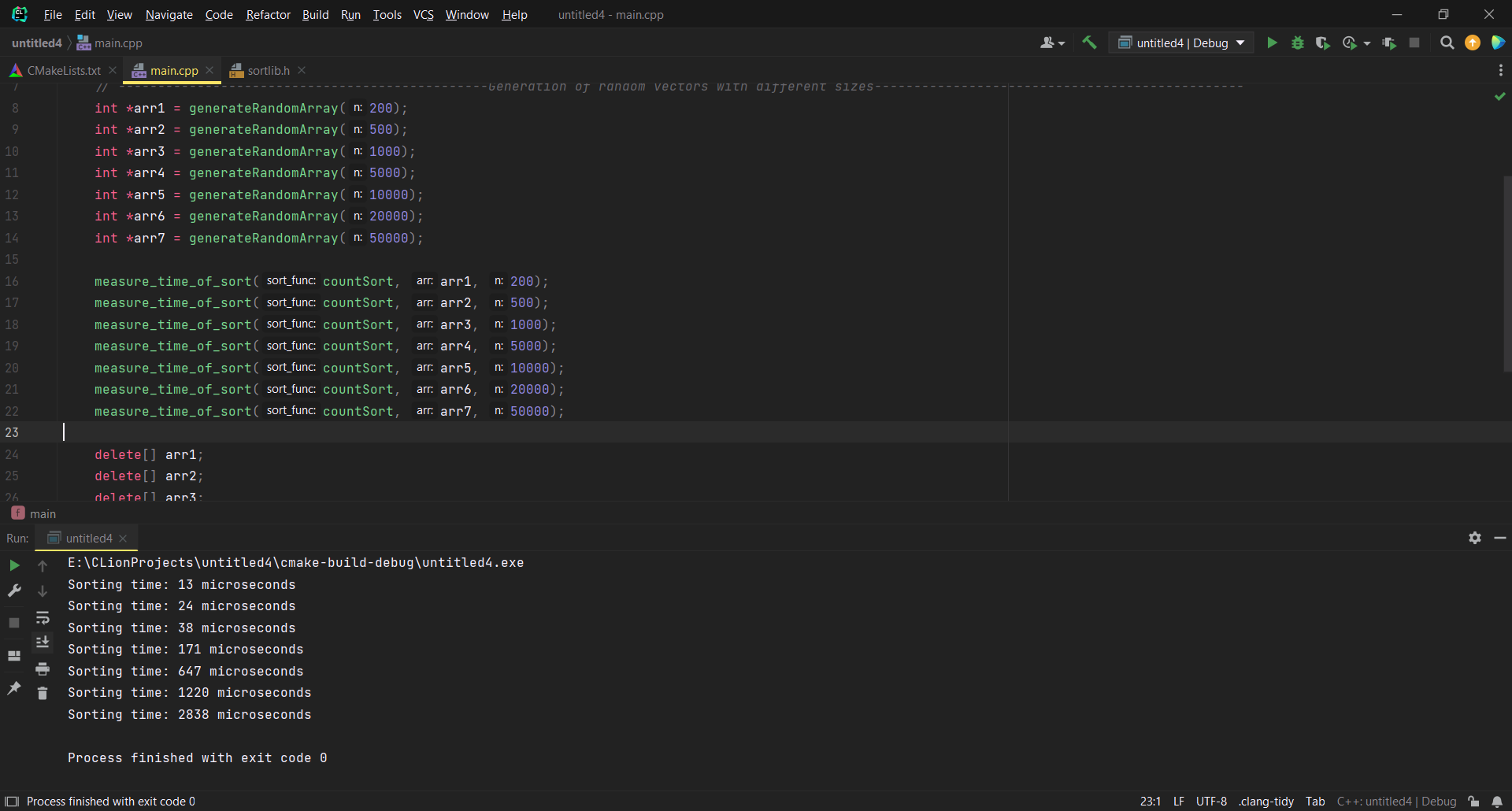
Shell Sort



|  |  |
| --- | --- |
| **Array size** | **Sorting time (milliseconds)** |

|  |  |
| --- | --- |
| 200 | 0 |
| 500 | 1 |
| 1000 | 4 |
| 5000 | 110 |
| 10000 | 337 |
| 20000 | 1237 |
| 50000 | 7434 |

Count Sort



|  |  |
| --- | --- |
| **Array size** | **Sorting time (microseconds)** |

|  |  |
| --- | --- |
| 200 | 13 |
| 500 | 24 |
| 1000 | 38 |
| 5000 | 171 |
| 10000 | 647 |
| 20000 | 1228 |
| 50000 | 2838 |

\*Note: count sort is measured in microseconds as it is faster than other algorithms