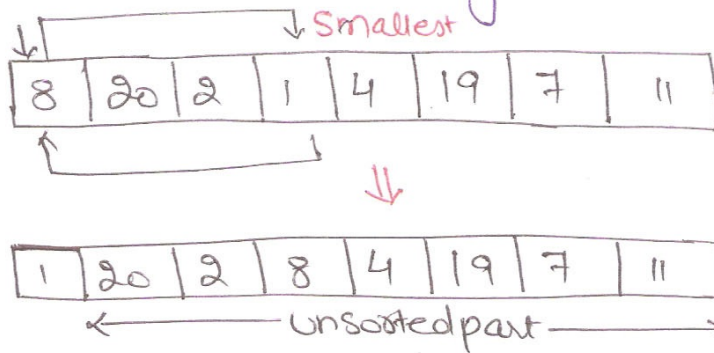# Selection Sort

→ In this sorting all the elements in the array are searched for the smallest element.
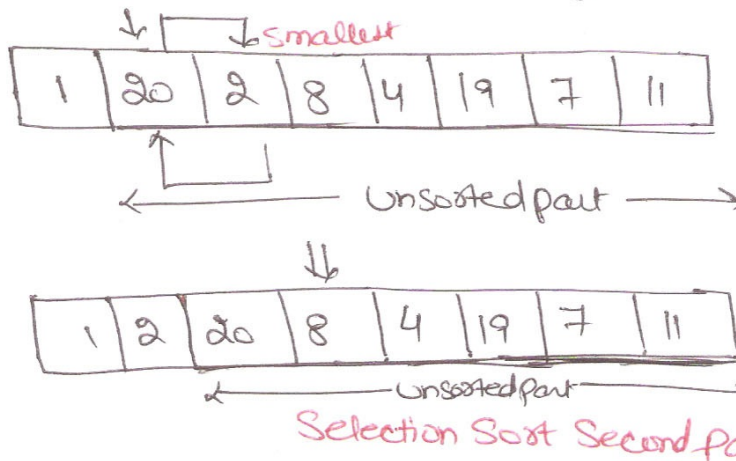
→ Then selected element is exchanged with the first element in the array.

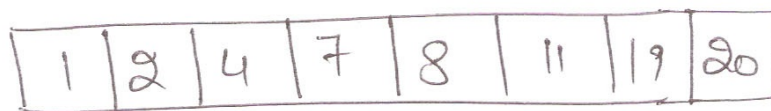| 8 | 20 | 2 | 1 | 4 | 19 | 7 | 11 |

↓ Smallest

⇓

| 1 | 20 | 2 | 8 | 4 | 19 | 7 | 11 |

← unsorted part →

→ Now the second smallest is selected from the rest of the array and is exchanged with the 1st element of the unsorted part of the array.

| 1 | 20 | 2 | 8 | 4 | 19 | 7 | 11 |

↓ smallest

← Unsorted part →

⇓

| 1 | 2 | 20 | 8 | 4 | 19 | 7 | 11 |

← unsorted part →

Selection Sort Second Pass

• The process of Selection and exchanged (i.e. a pass) Continues in this fashion until the all elements in array are Sorted.

| 1 | 2 | 4 | 7 | 8 | 11 | 19 | 20 |

In the end we get this Sorted Array / List

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