```
Function sort_array(array, low, high):
    i_low <- low
    i_high <- high

    #values_found[Lower section, Higher section]
    values_found <- [False, False]

    i_wall < floor((i_high + i_low) / 2)

    If Not i_wall > high And Not i_wall < low:
            While i_low != i_wall Or i_high != i_wall:
            If Not values_found[0] And i_low != i_wall:
                If array[i_low] > array[i_wall]:
                    values_found[0] <- True
                Elseif i_low < len(array):
                    i_low ++

            If Not values_found[1] And i_high != i_wall:
                If array[i_high] < array[i_wall]:
                    values_found[1] <- True
                Else:
                    i_high --

            If values_found[0] == True And values_found[1] == True:
                array[i_low], array[i_high] <- array[i_high], array[i_low]
                values_found <- [False, False]

            If values_found[0] == True And i_high == i_wall:
                array[i_low], array[i_wall] <- array[i_wall], array[i_low]
                values_found <- [False, False]

            If values_found[1] == True And i_low == i_wall:
                array[i_high], array[i_wall] <- array[i_wall], array[i_high]
                i_wall ++
                values_found <- [False, False]

    If low != high:
        sort_array(array, low, i_wall - 1)
        sort_array(array, i_wall + 1, high)
```

```
  ┌──────────┐      array      ┌──────────┐     array      ┌──────────┐
  │ Read_File│ ───────────────▶│   Main   │───────────────▶│  Display │
  │          │◀─────────────── │          │                │          │
  └──────────┘                 └──────────┘                └──────────┘
                              array,  │  ▲ array
                              start,  │  │
                               end    ▼  │        array, start, end
                                ┌──────────┐
                                │sort_array│◀──┐
                                │          │───┘
                                └──────────┘
```