**Practice project - Assisted**

Writing a program in Java implementing the quick sort algorithm

**class** QuickSort

{

**int** partition(**int** arr[], **int** low, **int** high)

{

**int** pivot = arr[high];

**int** i = (low-1); // index of smaller element

**for** (**int** j=low; j<high; j++)

{

**if** (arr[j] <= pivot)

{

i++;

// swap arr[i] and arr[j]

**int** temp = arr[i];

arr[i] = arr[j];

arr[j] = temp;

}

}

// swap arr[i+1] and arr[high] (or pivot)

**int** temp = arr[i+1];

arr[i+1] = arr[high];

arr[high] = temp;

**return** i+1;

}

**void** sort(**int** arr[], **int** low, **int** high)

{

**if** (low < high)

{

**int** pi = partition(arr, low, high);

sort(arr, low, pi-1);

sort(arr, pi+1, high);

}

}

**static** **void** printArray(**int** arr[])

{

**int** n = arr.length;

**for** (**int** i=0; i<n; ++i)

System.***out***.print(arr[i]+" ");

System.***out***.println();

}

// Driver program

**public** **static** **void** main(String args[])

{

**int** arr[] = {10, 7, 8, 9, 1, 5};

**int** n = arr.length;

QuickSort ob = **new** QuickSort();

ob.sort(arr, 0, n-1);

System.***out***.println("sorted array");

*printArray*(arr);

}

}