Data structures and Algo in Java - day 7

Learned the basic sorting techniques

- Bubble sort/

- Insertion sort.

- Selection sort.

Below I have pasted my code for these sorting techniques in the form of functions.

import java.util.Arrays;

public class heyyyyy

{

public static void main(String[] args)

{

int arr [] = {12,21,34,9};

int n = arr.length;

insertion\_sort(arr, n);

}

public static void selection\_sort(int arr [] , int n)

{

for(int i=0;i<n-1;i++)

{

int mini = i; //0

for(int j=i;j<n;j++)

{

if(arr[j]<arr[mini])//arr[6]<arr[0] 9<10

{

mini = j; //6

}

}

int temp = arr[mini];

arr[mini] = arr[i];

arr[i] = temp;

System.out.println(Arrays.toString(arr));

}

}

public static void bubble\_sort(int arr[],int n)

{

for(int i=n-1;i>=0;i--)

{

int didswap = 0;

for(int j=0;j<=i-1;j++)

{

if(arr[j]>arr[j+1])

{

int temp = arr[j];

arr[j] = arr[j+1];

arr[j+1]= temp;

didswap = 1;

}

}

System.out.print(didswap);

if(didswap==0)

{

break;

}

System.out.println(Arrays.toString(arr));

}

}

public static void insertion\_sort(int arr [] , int n)

{

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

{

int j=i;

while(j>0 && arr[j-1]>arr[j])

{

int temp = arr[j-1];

arr[j-1] = arr[j];

arr[j]= temp;

j--;

System.out.println(Arrays.toString(arr));

}

}

}

}