**public** **class** Sorting {

**public** **static** **void** swap(**int**[] a, **int** j, **int** k) {

**int** temp = a[j];

a[j] = a[k];

a[k] = temp;

}

**public** **static** **void** selectionSort(**int**[] a) {

**int** i, j, min;

**for** (i = 0; i < a.length - 1; i++) {

**for** (j = i + 1, min = i; j < a.length; j++) {

**if** (a[j] < a[min])

min = j;

}

*swap*(a, min, i);

}

}

**public** **static** **void** bubbleSort(**int**[] a){

**int** i,j;

**for**(i = a.length-1;i>=0;--i){

**for**(j=0;j<i;j++){

**if**(a[j]>a[j+1]){

*swap*(a,j,j+1);

}

}

}

}

**public** **static** **void** insertSort(**int**[] a) {

**int** i,j,k;

**boolean** move;

**for**(i = 1;i<a.length; i++){

k=a[i];

j=i;

**if**(a[j-1]>k)

move=**true**;

**else**

move = **false**;

**while**(move){

a[j] = a[j-1];

j--;

**if**(j>0&&a[j-1]>k)

move=**true**;

**else**

move=**false**;

}

a[j] = k;

}

}

}

**public** **class** SortMain {

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

**int**[] a = { 5, 2, 8, 3, 1 };

**int**[] b = { 5, 2, 9, 1, 10};

**int**[] c = {10, 2, 3, 4, 1};

**int** i;

System.***out***.println("정렬 전 배열 원소 : ");

**for** (i = 0; i < a.length; i++)

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

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

Sorting.*selectionSort*(a);

System.***out***.println("선택 정렬 된 배열 원소 : ");

**for** (i = 0; i < a.length; i++)

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

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

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

System.***out***.println("정렬 전 배열 원소: ");

**for**(i = 0; i < b.length;i++)

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

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

Sorting.*bubbleSort*(b);

System.***out***.println("버블 정렬된 배열 원소: ");

**for**(i = 0; i < b.length; i++)

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

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

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

System.***out***.println("정렬 전 배열 원소: ");

**for**(i = 0; i < c.length;i++)

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

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

Sorting.*insertSort*(c);

System.***out***.println("삽입 정렬된 배열 원소: ");

**for**(i = 0; i < c.length; i++)

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

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

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

}

}

