**package** com.manitpornsut.nc214.sorting;

**public** **class** SubjictSorting {

**private** Subject subject []; สร้างตัวแปร Subjectเป็นArray ชื่อsubject

**private** **int** eSize ;

**public** SubjictSorting(**int** size) {

**if**(size > 0)

**this**.subject = **new** Subject[size];

สร้างลูป

**else**

**this**.subject = **new** Subject[10];

eSize = 0;

}

**public** **void** insert(Subject e) {

**this**.subject[eSize] = e;

eSize++;

}

**public** **void** show(){

**for**(**int** i = 0;i<eSize;i++) {

System.***out***.println(**this**.subject[i].getCode()+" "+**this**.subject[i].getName()

+" "+**this**.subject[i].getUnit()+" "+**this**.subject[i].getGrade());

}

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

}

**public** **void** bubbleSort(){

**int** out,in;

การจัดเรียงข้อมูล BubbleSort

**for**(out = eSize - 1;out > 0;out--) {

**for**(in = 0;in<out;in++) {

**if**(**this**.subject[in].getCode().compareTo(**this**.subject[in + 1].getCode())>0) {

**this**.swap(in,in+1);

}

}

}

}

**private** **void** swap(**int** left,**int** right) {

Subject temp = **this**.subject[left];

สลับตำแหน่งข้อมูล

**this**.subject[left] = **this**.subject[right];

**this**.subject[right] = temp;

}

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

SubjictSorting subjictSorting = **new** SubjictSorting(4);

Subject q = **new** Subject("NC252","Data Structures and Algorithms",3,"A");

Subject w = **new** Subject("NC355","Computer Organizations and Architectures",3,"B+");

Subject e = **new** Subject("NC356","Software Engineering",3,"B");

Subject r = **new** Subject("NC473","Network Design",3,"A");

subjictSorting.insert(q);

subjictSorting.insert(w);

subjictSorting.insert(e);

subjictSorting.insert(r);

subjictSorting.show();

subjictSorting.bubbleSort();

subjictSorting.show();

}

}