**package** workplace;

**import** java.util.Scanner;

**public** **class** practice3a2 {

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

Scanner scanner = **new** Scanner(System.***in***);

**int** i=0; //i列的index

**int** count=0; //流程控制

**int** listen[]= **new** **int**[5]; //設定有5格的listen陣列

**int** read[]= **new** **int**[5]; //設定有5格的read陣列

//平均值、標準差、最小值、最大值

**float** average[]= **new** **float** [5];

**float** sigma[]= **new** **float** [5];

**float** min[]= **new** **float** [5];

**float** max[]= **new** **float** [5];

**int** sum;

// int c; //計算輸入陣列的個數

**int** z; //輸入選項

**while** ( **true** ) {

sum = 0;

**if** (count== 0) {

System.***out***.print("主選項: 1)輸入成績 2)統計資料 3)搜尋成績 4)修改成績 -1)結束:");

z = scanner.nextInt();

**if** (z == 1) {

count = 1;

}

**else** **if** (z == 2) {

count = 3;

}

**else** **if** (z == 3) {

count = 4;

}

**else** **if** (z == 4) {

**break**;

}

**else** {

System.***out***.print( "輸入錯誤，請重新輸入");

System.***out***.print( "\n");

count = 0;

}

}

**if** (count == 1) {

System.***out***.print( "請輸入聽力成績");

listen[i] = scanner.nextInt();

**if** (listen[i]<0 || listen[i]>120) {

System.***out***.println("分數輸入錯誤!");

listen[i]--; //輸入錯誤的數字，不要記錄到index裡

count = 1;

}

**else** {

// c++; //if之內輸入 正確 才要計數，相當於i

count++;

}

}

**if** ( count == 2 ) {

System.***out***.print("請輸入閱讀成績");

read[i] = scanner.nextInt();

**if** (read[i]<0 || read[i]>120) {

System.***out***.println("分數輸入錯誤!");

count = 2;

i--; //輸入錯誤的數字，不要記錄到index裡

}

**else** {

count = 3;

}

}

**if** ( count == 3 ) {

// 總分

sum = sum + listen[i] + read[i];

//平均值

**int** n[] = **new** **int**[5]; //儲存 已相加 的值

**int** a[] = **new** **int**[5]; //儲存 已除 的值

**for** (**int** s=0; s<i; s++) { //s協助scan，代表目前所存入個數

**if** ( listen[s] == listen[i] ) { //存入個數和醇入為制相等時相加

n[i] = listen[i] + listen[i+1];

}

a[i]= n[i] / i;

}

//計算聽力標準差

//數字的平方、相加

**int** p = listen.length;

**int** pos =0;

**int** q[] = **new** **int**[5];

**for** (pos = 0; pos<p; pos++) {

**if** (listen[pos] == listen[i-1]) {

**for** (i=0; i<4; i++) {

q[i] = listen[i]\*listen[i];

listen[i-1] = q[i];

q[i] = listen[i-1]+listen[i-2];

}

}

}

//平均的平方

**int** r = listen.length;

**int** poss =0;

**int** m[] = **new** **int**[3];

**for** (poss = 0; poss<r; poss++) {

**if** (listen[poss] == m[i]) {

**for** (i=0; i<4; i++) {

m[i] = listen[i]\*listen[i+1];

}

}

}

sigma[i] = (**float**)Math.*sqrt*( q[i] / 4 - m[i] / 4 \* m[i] / 4);

//最小值、最大值

**int** t = listen.length;

**for** (**int** pass = 1; pass < t; pass++) { //scan

**for**(i = 0; i < t - pass; i++) { //交換次數

**if** (listen[i] > listen[i+1]) { //判斷

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

listen[i] = listen[i+1];

listen[i+1] = temp; //最小值在左邊、最大值在右邊

}

}

}

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

System.***out***.println("總分:" + sum +"\t");

System.***out***.println(" 聽力測驗 閱讀測驗 總分");

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

**for** (i=0; i<5; i++) {

**for** (**int** j=0; j<4; j++) {

System.***out***.print( average[i] + "\t");

System.***out***.print( sigma[i] + "\t" );

System.***out***.printf( "%3f.2 \t", listen[i+1] );

System.***out***.printf( "%3f.2 \t", listen[i]);

}

}

count = 0;

}

**if** (count == 4) {

//搜尋成績，沒有要做

**break**;

}

**if** (count == 5) {

//修改成績，沒有要做

**break**;

}

}

}

}