**WONG KAI YUAN (DC02615-7) CISC1001 (Assignment 8) Wednesday (1130-1245)**

#include <stdio.h>

**struct** Student{

**char** name[50];

**int** math;

**int** physics;

**int** chemistry;

};

**int** main()

{

**struct** Student A, B, C;

**struct** Student rank[3]; /\*struct array\*/

**struct** Student temp;

**int** i, j;

**int** total[3];

printf("input student A's name ,marks of math, physics, chemistry(int):");

scanf("%s %d %d %d", A.name, &A.math, &A.physics, &A.chemistry);

printf("input student B's name ,marks of math, physics, chemistry(int):");

scanf("%s %d %d %d", B.name, &B.math, &B.physics, &B.chemistry);

printf("input student C's name ,marks of math, physics, chemistry(int):");

scanf("%s %d %d %d", C.name, &C.math, &C.physics, &C.chemistry);

rank[0] = A;

rank[1] = B;

rank[2] = C;

**for** (i=0; i<3; i++){

total[i] = rank[i].math + rank[i].physics + rank[i].chemistry;

}

**for** (i=0; i<3; i++){

**for** (j=i+1; j<3; j++){

**if** (total[i] < total[j]){

temp = rank[i];

rank[i] = rank[j];

rank[j] = temp;

}

**else** **if** (total[i] == total[j]){

**if** (rank[i].math < rank[j].math){

temp = rank[i];

rank[i] = rank[j];

rank[j] = temp;

}

**else** **if** (rank[i].math == rank[j].math){

**if** (rank[i].physics < rank[j].physics){

temp = rank[i];

rank[i] = rank[j];

rank[j] = temp;

}

**else** **if** (rank[i].physics == rank[j].physics){

**if** (rank[i].chemistry < rank[j].chemistry){

temp = rank[i];

rank[i] = rank[j];

rank[j] = temp;

}

**else** **if** (rank[i].chemistry == rank[j].chemistry){

**if** (rank[i].name[0] < rank[j].name[0]){

temp = rank[i];

rank[i] = rank[j];

rank[j] = temp;

}

}

}

}

}

}

}

printf("(From highest to lowest) The rank is:\n");

**for** (i=0; i<3; i++){

printf("%s\n", rank[i].name);

}

**return** 0;

}