#include <iostream>

#include <string>

int main()

{

std::string runner1 = "", runner2 = "", runner3 = "";

double time1 = 0, time2 = 0, time3 = 0;

double tempTime;

std::string tempName;

std::cout << "Enter the names of three runners and their finishing times."

<< "\nI will tell you who came in first, second, and third.\n\n";

// getting user input for runner1, runner2, runner3

std::cout << "Name of Runner 1: ";

std::getline(std::cin, runner1);

while(time1 <= 0){

std::cout << "Runner 1's finishing time: ";

std::cin >> time1;

std::cin.ignore();

if(time1 <= 0){

std::cout << "Input Validation: Only accept positive numbers for the times.\n";

}

}

std::cout << "\n";

std::cout << "Name of Runner 2: ";

std::getline(std::cin, runner2);

while(time2 <= 0){

std::cout << "Runner 2's finishing time: ";

std::cin >> time2;

std::cin.ignore();

if(time2 <= 0){

std::cout << "Input Validation: Only accept positive numbers for the times.\n";

}

}

std::cout << "\n";

std::cout << "Name of Runner 3: ";

std::getline(std::cin, runner3);

while(time3 <= 0){

std::cout << "Runner 3's finishing time: ";

std::cin >> time3;

std::cin.ignore();

if(time3 <= 0){

std::cout << "Input Validation: Only accept positive numbers for the times.\n";

}

}

std::cout << "\n";

// sorting

if(time1 > time2){

tempTime = time1;

time1 = time2;

time2 = tempTime;

tempName = runner1;

runner1 = runner2;

runner2 = tempName;

}

if(time1 > time3){

tempTime = time1;

time1 = time3;

time3 = tempTime;

tempName = runner1;

runner1 = runner3;

runner3 = tempName;

}

if(time2 > time3){

tempTime = time2;

time2 = time3;

time3 = tempTime;

tempName = runner2;

runner2 = runner3;

runner3 = tempName;

}

std::cout << runner1 << " came in 1st place.\n"

<< runner2 << " came in 2nd place.\n"

<< runner3 << " came in 3rd place.";

return 0;

}

/\* Test run result

Enter the names of three runners and their finishing times.

I will tell you who came in first, second, and third.

Name of Runner 1: Jon Doe

Runner 1's finishing time: 15.15

Name of Runner 2: Matt long

Runner 2's finishing time: 14.41

Name of Runner 3: Sam Short

Runner 3's finishing time: 13.57

Sam Short came in 1st place.

Matt long came in 2nd place.

Jon Doe came in 3rd place.

\*/