CSci 14 Lab Practical Exam

Problem 1:

Suppose that you have this on your record:

```
Caleb,10,3856
Daniel,10,3901
Paul,20,8907
Mark,20,7891
Mary,10,4012
```

In which the entry for the first item is the name of the runner, then the distance in km and the last is the time of the run in seconds. Create a structure to read this data.

Using the structures below:

```
struct timeType
{
   int hr;
   double min;
   int sec;
};


struct runnerPersonType
{
       string name;
       int distance;
       timeType time;
       double minPerKm;
       double kmPerHour;
};
```

From the existing structure that you've read, create the necessary functions to write into a new record the items as follows:

```
xxNamexx, xxDistancexx, xxTimeTypexx, xxminPerKmxx, xxkmPerHourxx
```

Problem 2:

Suppose you have a record:

```
12345 1 893
32214 1 343
23422 3 903
57373 2 893
35864 5 329
54654 9 392
```

```
12345 2 999
32214 4 892
23422 4 895
23422 2 492
57373 6 892
35864 10 1223
54654 11 3420
12345 12 322
35864 5 892
54654 3 893
12345 8 494
32214 8 9023
23422 6 223
23422 4 783
57373 8 8834
35864 3 2882
```

In which the first entry is the salesPersonID, the second is the month and the third is the salesAmount. Write a structure to read this record from file. From this existing record, write the necessary function so that you'll convert this record into a quarterly tabular format formatted below:

```
ID           QT1              QT2              QT3              QT4              Total
xxSalesIDxx  xxSalesAmountxx  xxSalesAmountxx  xxSalesAmountxx  xxSalesAmountxx  xxTotalSalesAmtxx
```

```
Max Sale by SalesPerson:xxSalesIDxx, Amount: xxAmountxx
Max Sale by Quarter: xxQuarterxx,   Amount: xxAmountxx
```

Write this report on a text file