Background:
The vendor machine company “Vendor Factory” wants to hire you to implement a solution to monitor all the sales around the country. The marketing department needs to be able to consult this information on different ways.

The sales information from all the machines will be stored in a single line report, which is going to be received by your implementation.

The format for the report will be as following:
`“<date>,<item>,<sold quantity>;<date>,<item>,<sold quantity>”`
You can assume it is a simple string on your chosen language.

Requirements:
Your solution should expose the following working functions:

- `int getSoldQuantity(string date)`
  - Returns the total of items sold on the given date.

- `int getSoldQuantityPerItem(string date, string itemName)`
  - Returns the total sold quantity for the given item on an specific date.

- `List<string> getMostSoldItems(string date)`
  - Returns a list of the most sold items on the given date or empty list if not sales were made on that date.

- `List<string> getMostSoldDates(string itemName)`
  - Returns a list of dates with the most sales for the given item or empty list if the item has not been sold.

You should write simple unit testing for each of these functions.

Considerations:

- Since the sales report is populated from multiple vending machines, is possible to found multiple registers of a date with the same item.
- For functions returning lists, order of elements doesn’t matter.
- Since the report is generated for all the country, can contains thousands of registers and is going to be consulted thousands of times.
- Mainly the things to consider when working on this problem are: efficiency, simplicity and a well structured/clean code.
- You should **not** implement any kind of user interface.

Example:

Given this is the report generated from the vending machines :

Date	Item Name	Sold Quantity
1/31/2017	cola soda	100
1/31/2017	cream cookie	60
1/31/2017	cream cookie	50
1/31/2017	chips	110
1/29/2017	cream cookie	130
1/28/2017	cola soda	100

The report string looks as follows:
`“1/31/2017,cola soda,100;1/31/2017,cream cookie,60;1/31/2017,cream cookie,50;1/31/2017,chips,110;1/29/2017,cream cookie,130;1/28/2017,cola soda,120”`

Example Test Cases:

- `getSoldQuantity(“1/31/2017”) => 320`
- `getSoldQuantity(“1/25/2017”) => 0`

- `getSoldQuantityPerItem(“1/31/2017”, “chips”) => 110`
- `getSoldQuantityPerItem(“1/29/2017”, “cola soda”) => 0`

- `getMostSoldItems(“1/31/2017”) => [“cream cookie”,”chips”]`
- `getMostSoldItems(“1/27/2017”) => []`

- `getMostSoldDates(“cola soda”) => [“1/31/2017”,“1/28/2017”]`
- `getMostSoldDates(“cream cookie”) => [“1/29/2017”]`
- `getMostSoldDates(“chocolate”) => []`