Hotels

A file "*hotels.txt*" contains a list of hotels of a hotel company. Each line corresponds to a hotel, and stores information on the number of rooms and room price. The format is the following:

`<hotel name>:<hotel ID>:<number of rooms>:<price>`

where `<hotel name>` is the hotel name (may include white spaces), `<hotel ID>` is the identifier of the hotel (alphanumeric string), `<number of rooms>` is an integer corresponding to the total number of rooms of the hotel and `<price>` is the room price. Fields are separated by character ':'

A second file "*bookings.txt*" contains the booking requests for a single day, one per row, with format

`<booking ID> <hotel ID> <requested rooms>`

where `<booking ID>` is an alphanumeric code representing the request, `<hotel ID>` corresponds to the identifier of one of the hotels and `<requested rooms>` is an integer corresponding to the number of rooms required to confirm the booking. The fields are separated by white spaces.

The program must read the file *bookings.txt* and book the rooms, whenever possible. If a request cannot be satisfied, the program must print a message with the request id (see the example below), and the corresponding request must be ignored. Booking requests should be processed in the same order as they appear in the file. Assume that the hotels are initially empty (all rooms are available).

Once all requests have been processed, the program must print:

- the number of confirmed and unconfirmed requests, respectively

- the final status of all hotels, including the number of free rooms (see the example below)

- the name of the hotel with the largest number of free rooms (in case of multiple hotels report only one)

Example

Given the file *hotels.txt*:

```
Milan:MIPN160:6:120.00
Turin:T0123:12:180.00
Barcelona:BRC13:13:80.00
Amsterdam:DEOL1:15:60.00
Madrid Center:MAD33:10:110.00
Eindhoven:EIND:18:55.00
Madrid Palace:MADP:12:105.00
```

and the file *bookings.txt*:

```
ID000 MIPN160 2
ID001 MIPN160 3
ID002 DEOL1 3
ID003 T0123 1
ID004 BRC13 3
ID005 DEOL1 1
ID006 MAD33 1
ID007 BRC13 5
ID008 T0123 3
ID009 EIND 1
ID010 DEOL1 4
ID011 MADP 2
ID012 MIPN160 2
```

the program should print:

```
Unconfirmed booking: ID012
Confirmed bookings: 12 - Unconfirmed bookings: 1

Hotels status:
    Milan: 6 rooms (1 free)
    Turin: 12 rooms (8 free)
    Barcelona: 13 rooms (5 free)
    Amsterdam: 15 rooms (7 free)
    Madrid Center: 10 rooms (9 free)
    Eindhoven: 18 rooms (17 free)
    Madrid Palace: 12 rooms (10 free)

Hotel with more free rooms: Eindhoven
```