Java Developer Technical Test

We've devised a technical test for you. We hope you find it fun, interesting and challenging.

The Brief

Assignment:
Your company has an existing system for employees to submit booking requests for meetings in the boardroom. Your employer has now asked you to implement a system for processing batches of booking requests.

1. Input

    Your processing system must process input as text. The first line of the input paylod represents the company office hours, in 24 hour clock format (ignore timezones), and the remainder of the input represents individual booking requests. Each booking request is in the following format:
    [Request submission time, in YYYY-MM-DD HH:MM:SS format] [Employee id]
    [Meeting start time, in YYYY-MM-DD HH:MM format] [Meeting duration in hours]
    A sample text input follows, to be used in your solution:

    ```
    0900 1730
    2016-07-18 10:17:06 EMP001
    2016-07-21 09:00 2
    2016-07-18 12:34:56 EMP002
    2016-07-21 09:00 2
    2016-07-18 09:28:23 EMP003
    2016-07-22 14:00 2
    2016-07-18 11:23:45 EMP004
    2016-07-22 16:00 1
    2016-07-15 17:29:12 EMP005
    2016-07-21 16:00 3
    ```

2. Output

    Your system must output a list of bookings in a specific format; with booking grouped chronologically by day. For the sample input displayed above, your system must provide the following output

    ```
    2011-03-21
    09:00 11:00 EMP001
    2011-03-22
    14:00 16:00 EMP003
    16:00 17:00 EMP004
    ```

3. Booking rules
   - No part of a meeting may fall outside of office hours (9:00 to 18:00).
   - Meetings may not overlap.
   - The booking submission system only allows one submission at a time, so submission times are guaranteed to be unique.
   - Booking must be processed in the chronological order in which they were submitted.
   - The ordering of booking submissions in the supplied input is not guaranteed.
4. Notes
   - Although the system that you produce may open and parse a text file for input, this is not part of the requirements. As long as the input text is in the correct format, the method of input is up to the developer.

Please read the instructions carefully and get in touch with us before the test if you have any queries.

The expected time to complete this test is 3 hours, but you can use more time if you need it to complete the task. Please make sure all code is checked at the end of the session and submit any extra documentation you would like to share

Instructions to the candidate:
1. Before starting the test, please follow the steps 2 to 3 to prepare your development environment for this test.
2. Set up a local git repo called **Lloyds-java-test-<name>** where name is your own name.
3. Make sure you commit your codes as you progress.
4. Zip the git repo on completion, and or share it over Github.com
5. All the java classes must have unit tests associated.
6. We will check production-quality coding like naming conventions, coding style, sensible design and meaningful commenting.