

The mega corporation Buffel & Båg AB has a custom built system for handling meetings which has been around since the beginning of time and which is now deemed too hard to use. Since management doesn't really know how important the system is they have invested far too little resources in the upgrade project and have decided to hire a single poor contractor (guess who) to solve the most important problems in almost no time.

As a first step, management has asked for a modern, HTTP-based, API that works independently of the existing system and that can be called to get suggestions for suitable meeting times based on the following parameters:

- participants (employee ids), one or multiple
- desired meeting length (minutes)
- earliest and latest requested meeting date and time
- office hours (e.g. 08-17)

At regular intervals all information is dumped from the existing system to a number of text files where the freebusy.txt file contains details on when all employees are busy the next few weeks.

An excerpt from the file can look like this:

```
170378154979885419149243073079764064027;Colin Gomez
170378154979885419149243073079764064027;2/18/2014 10:30:00 AM;2/18/2014 11:00:00 AM;485D2AEB9DBE3...
139016136604805407078985976850150049467;Minnie Callahan
139016136604805407078985976850150049467;2/19/2014 10:30:00 AM;2/19/2014 1:00:00 PM;C165039FC08AB4...
```

As it seems, the file has lines in two different formats where the first one contains employee id and display name and the second format has information on the time slots where the employee is busy and therefore not available for meetings.

The following can be good to know:

- In the file, all times are stated in UTC, but when querying the API, the client's local time should be used
- apparently it is quite common that people work every day of the week
- due to the crappy state of the existing system the file may contain some irregularities, these should be ignored
- the system only handles meetings that start every whole and half hour, e.g. 08.00, 08.30, 09.00, etc.

As a second step, management has asked for a webform that communicates with the API and display suitable meeting times based on the available input parameters (employees, desired meeting length, earliest and latest requested meeting date, and time and office hours).

Unfortunately, everyone who knew something about the old system have fled the company a long time ago. Questions regarding how the new API/application should work can however be answered. Good luck!