

Calendar - coordinate n people for a meeting

Write an efficient algorithm to find a slot that is available among n calendars.
Please take the time to write clean code with a good breakdown.

Input: each calendar is represented by a list of meetings, you will be given a list of them in an input file, alongside start_date and end_date. The invocation of your program will be as follows:

```
> ./free_slots input.json 2021-03-08 2021-03-14
```

Output: return a list of available slots per the expected output (JSON format on stdout)

Notes:

Timestamps are formatted per ISO 8601 notation.

The input file includes data as detailed below, but the number of meetings/calendars given may vary, and meetings can be scheduled on different days.

Example input file content

```
[
  {
    "name": "Betty",
    "meetings": [
      {
        "startTime": "2021-03-10T08:55:40+00:00",
        "endTime": "2021-03-10T09:15:38+00:00",
        "subject": "Meeting 1"
      },
      {
        "startTime": "2021-03-10T09:55:42+00:00",
        "endTime": "2021-03-10T10:15:13+00:00",
        "subject": "Meeting 2"
      },
      {
        "startTime": "2021-03-10T11:55:31+00:00",
        "endTime": "2021-03-10T12:15:19+00:00",
        "subject": "Meeting 3"
      }
    ]
  },
  {
    "name": "John",
    "meetings": [
      {
```

```

        "startTime": "2021-03-10T08:15:31+00:00",
        "endTime": "2021-03-10T09:55:59+00:00",
        "subject": "Meeting a"
    },
    {
        "startTime": "2021-03-11T10:15:45+00:00",
        "endTime": "2021-03-11T10:55:28+00:00",
        "subject": "Meeting b"
    },
    {
        "startTime": "2021-03-11T11:15:51+00:00",
        "endTime": "2021-03-11T12:55:14+00:00",
        "subject": "Meeting c"
    }
]
}
]

```

Expected result:

```

[
  {
    "startTime": "2021-03-10T00:00:00+00:00",
    "endTime": "2021-03-10T08:15:31+00:00"
  },
  {
    "startTime": "2021-03-10T10:15:13+00:00",
    "endTime": "2021-03-10T11:55:31+00:00"
  },
  {
    "startTime": "2021-03-10T12:15:19+00:00",
    "endTime": "2021-03-11T10:15:45+00:00"
  },
  {
    "startTime": "2021-03-11T10:55:28+00:00",
    "endTime": "2021-03-11T11:15:51+00:00"
  },
  {
    "startTime": "2021-03-11T12:55:14+00:00",
    "endTime": "2021-03-11T23:59:59+00:00"
  }
]

```