"Opening Hours"

Version 2.1

In short

Your task is to write a program that takes JSON-formatted opening hours of a restaurant as an input and outputs hours in more human readable format.

Input

Input JSON consist of keys indicating days of a week and corresponding opening hours as values. One JSON file includes data for one restaurant.

```
{
      <dayofweek>: <opening hours>
      <dayofweek>: <opening hours>

      ...
}
```

<dayofweek>: *monday / tuesday / wednesday / thursday / friday / saturday / sunday*
<opening hours>: an array of objects containing opening hours. Each object consist of two keys:
- **type**: *open* or *close*
- **value***: opening / closing time as UNIX time (1.1.1970 as a date),*
  e.g. *32400 = 9 AM*, *37800 = 10.30 AM,*
  max value is *86399 = 11.59:59 PM*

Example: on Mondays a restaurant is open from 9 AM to 8 PM

```
{
    "monday" : [
      {
         "type" : "open",
         "value" : 32400
      },
      {
```

```
            "type" : "close",
            "value" : 72000
        }
    ],
    ….
}
```

Special cases

- If a restaurant is closed the whole day, an array of opening hours is empty.
  - *"tuesday": []* means a restaurant is closed on Tuesdays

- A restaurant can be opened and closed multiple times during the same day,
  - E.g. on Mondays from 9 AM - 11 AM and from 1 PM to 5 PM

- A restaurant might not be closed during the same day
  - E.g. a restaurant is opened on a Sunday evening and closed on early Monday morning. In that case *sunday*-object includes only the opening time. Closing time is part of the *monday*-object.
  - When printing opening hours which span between multiple days, closing time is always a part of the day when a restaurant was opened (e.g. Sunday 8 PM - 1 AM)

```
    {
        "friday" : [
          {
              "type" : "open",
              "value" : 64800
          }
        ],
        "saturday": [
          {                              A restaurant is open:
              "type" : "close",          Friday: 6 PM - 1 AM
              "value" : 3600             Saturday: 9 AM -11 AM, 4 PM - 11 PM
          },
          {
              "type" : "open",
              "value" : 32400
          },
          {
              "type" : "close",
              "value" : 39600
          },
          {
              "type" : "open",
              "value" : 57600
          },
```

```
        {
            "type" : "close",
            "value" : 82800
        }
    ]
}
```

Deliverable

Part 1: Build a HTTP API that accepts opening hours data as an input (JSON) and returns a more human readable version of the data formatted using 12-hour clock.

Output example in 12-hour clock format:
Monday: 8 AM - 10 AM, 11 AM - 6 PM
Tuesday: Closed
Wednesday: 11 AM - 6 PM
Thursday: 11 AM - 6 PM
Friday: 11 AM - 9 PM
Saturday: 11 AM - 9 PM
Sunday: Closed

Your API can print the formatted version to the console or return it to the caller (of the API).

Part 2: Tell us what do you think about the data format. Is the current JSON structure the best way to store that kind of data or can you come up with a better version? There are no right answers here 🙂. Please write your thoughts to readme.md.

Send a link to your GitHub repo or bundle everything into a Zip archive and mail it to us. Remember that it is easier for us to review your task if we can test & run it.

A good check before sending you task is to clone the repository / unzip the Zip archive into a new folder and check that building and running the project works, using the steps you define in readme.md. Forgotten dependencies and instructions can sometimes happen even to the best of us.

Tech

Feel free to use any programming language you prefer (unless specifically asked to write the program using e.g. Python or Scala). 3rd party libraries and frameworks are also allowed.

Full Example

INPUT   **OUTPUT**

```json
{
    "monday" : [],
    "tuesday" : [
        {
            "type" : "open",
            "value" : 36000
        },
        {
            "type" : "close",
            "value" : 64800
        }
    ],
    "wednesday" : [],
    "thursday" : [
        {
            "type" : "open",
            "value" : 36000
        },
        {
            "type" : "close",
            "value" : 64800
        }
    ],
    "friday" : [
        {
            "type" : "open",
            "value" : 36000
        }
    ],
    "saturday" : [
        {
            "type" : "close",
            "value" : 3600
        },
        {
            "type" : "open",
            "value" : 36000
        }
    ],
    "sunday" : [
        {
            "type" : "close",
            "value" : 3600
        },
        {
            "type" : "open",
            "value" : 43200
        },
        {
            "type" : "close",
            "value" : 75600
```

Monday: Closed
Tuesday: 10 AM - 6 PM
Wednesday: Closed
Thursday: 10 AM - 6 PM
Friday: 10 AM - 1 AM
Saturday: 10 AM - 1 AM
Sunday: 12 PM - 9 PM

```
        }
    ]
}
```