



CAD-IT IoT Centre Code Test: Schedule Overlap

V1.0 | 28 MAY 2022

CAD-IT IoT Centre Team

Submit

- calendar.js
- package.json
- Zip file (send to mail)

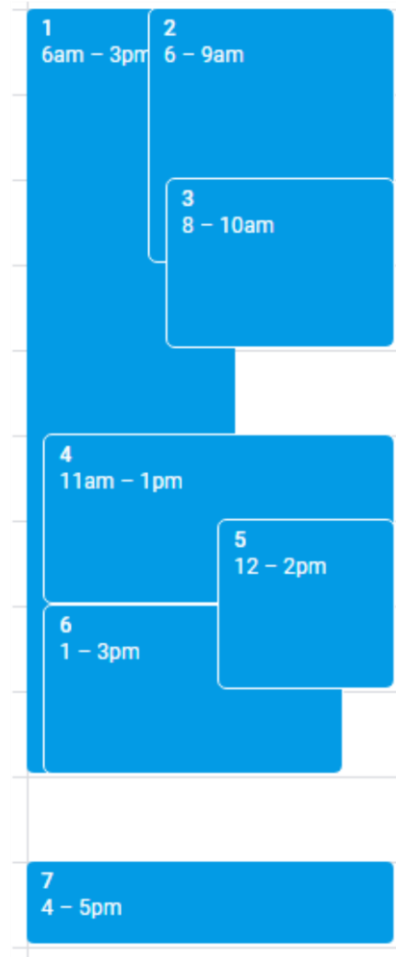
- Given data schedule in 1 day (schedule_<number>.json) -> array of object from id, start, and end
- <number> is number of case, there will be given 4 cases
- id is integer for unique number, start is timestamp for schedule start time, and end is timestamp for schedule end time
- Generate new data schedule in (overlap_schedule_<number>.json) with the following rules
 - Add one key in the object with name “overlaps”, so array will look like array of object from id, start, end, and overlaps
 - Data type for overlaps is array of integer
 - Value of overlaps is an array of schedule id that overlaps in time with the schedule. So, we can see which schedules overlap each other
 - If schedule overlaps with 2 or more schedule, value of overlaps is overlaps data with longest array. Ex: if schedule 1 overlap with 2,3,4 and also overlap with 5,6,7,8 then value overlap 1 is [1,5,6,7,8]
 - You can check your answer with open this url (<https://calendar.google.com/>) and create schedules in 1 day with id is schedule name, start is start time, and end is end time.

Example (test case schedule_2.json)

- Input

```
[
  {
    "id": 1,
    "start": "2/7/2022, 06:00:00",
    "end": "2/7/2022, 15:00:00",
  },
  {
    "id": 2,
    "start": "2/7/2022, 06:00:00",
    "end": "2/7/2022, 09:00:00",
  },
  {
    "id": 3,
    "start": "2/7/2022, 08:00:00",
    "end": "2/7/2022, 10:00:00",
  },
  {
    "id": 4,
    "start": "2/7/2022, 11:00:00",
    "end": "2/7/2022, 13:00:00",
  },
  {
    "id": 5,
    "start": "2/7/2022, 12:00:00",
    "end": "2/7/2022, 14:00:00",
  },
  {
    "id": 6,
    "start": "2/7/2022, 13:00:00",
    "end": "2/7/2022, 15:00:00",
  },
  {
    "id": 7,
    "start": "2/7/2022, 16:00:00",
    "end": "2/7/2022, 17:00:00",
  },
];
```

- Schedule Overview in Google Calendar



- Output

```
[
  {
    "id": 1,
    "start": "2/7/2022, 06:00:00",
    "end": "2/7/2022, 15:00:00",
    "overlaps": [1, 2, 3]
  },
  {
    "id": 2,
    "start": "2/7/2022, 06:00:00",
    "end": "2/7/2022, 09:00:00",
    "overlaps": [1, 2, 3]
  },
  {
    "id": 3,
    "start": "2/7/2022, 08:00:00",
    "end": "2/7/2022, 10:00:00",
    "overlaps": [1, 2, 3]
  },
  {
    "id": 4,
    "start": "2/7/2022, 11:00:00",
    "end": "2/7/2022, 13:00:00",
    "overlaps": [1, 4, 5]
  },
  {
    "id": 5,
    "start": "2/7/2022, 12:00:00",
    "end": "2/7/2022, 14:00:00",
    "overlaps": [1, 4, 5]
  },
  {
    "id": 6,
    "start": "2/7/2022, 13:00:00",
    "end": "2/7/2022, 15:00:00",
    "overlaps": [1, 5, 6]
  },
  {
    "id": 7,
    "start": "2/7/2022, 16:00:00",
    "end": "2/7/2022, 17:00:00",
    "overlaps": [7]
  }
]
```

For further information about our solutions,
please check out our website
www.caditglobal.com

