

Data Engineer Challenge

At TheOutplay we receive 10 million of events every day from our advertising platform. An example of event could be like this:

```
{
  'clip': '1433',
  'country': 'IT',
  'event_id': '3cb10c45-4b92-496c-946d-b5dea993c8f9',
  'publisher_id': '22',
  'viewable_time': '15'
  'timestamp': '552878700'
}
```

Where:

- **clip** is an id of 4 random numbers
- **country** is the country code
- **event_id** is an uuid of the event
- **publisher_id** is an id of 2 random numbers
- **viewable_time** is the time in seconds of the ad viewed (max 30)
- **timestamp** is the unix timestamp of the event

We would like to have a **schedulable** job that takes as input:

- the number of events to generate
- the datetime range

The job generates fake data and stores the events in a Redis database.

We would like to see a bunch of statistics saved and updated in Redis

- total sum of viewable_time per publisher
- the top 10 publishers by events count
- the number of uniques clips per publisher
- total sum of clips per country viewed by day and by night
(day = from 07:00 to 19:00, night = from 19:00 to 07:00)

Note: The efficiency of code is important