Code test hedvig

For this test you will be given a number of events for a figurative insurance system. Your task is to go over all events and generate a report. The choice of programming language and the output format is up to you. During the interview, you will present your solution to us and we can hopefully have some good discussions.

The events can be used to create, terminate and change the premium of the insurance.

The report should include the metrics defined below for every month *between* jan-dec 2020.

Metrics:
Number of contrafts: The number of contracts that started but not yet been terminated.
Expected gross written premium (EGWP): The expected sum of all premiums for the year.
Actual gross written premium (AGWP): The accumulated premium that should have been paid in every month.

Event structure:

```
ContractCreatedEvent
{
 "contractId":  "contractId",
 "premium": 100,
 "startDate": "2020-02-17"
}
PriceIncreasedEvent
{
 "contractId":  "contractId",
 "premiumIncrease": 10,
 "atDate": "2020-02-17"
}
PriceDecreasedEvent
{
 "contractId":  "contractId",
 "premiumReduction": 10,
 "atDate": "2020-02-17"
}
ContractTerminatedEvent
{
 "contractId":  "contractId",
 "terminationDate": "2020-02-17"
}
```

Task 1

Calculate the report using the events: `ContractCreatedEvent` and `ContractTerminatedEvent`

Example:

Input

```
ContractCreatedEvent        1,    100,       2020-01-01
ContractCreatedEvent        2,    100,       2020-02-01
ConctractTerminatedEvent    1,               2020-03-30
ConctractTerminatedEvent    2,               2020-04-31
```

Output

	Jan	Feb	Mar	Apr	May
Number of Contracts	1	2	2	1	0
AGWP	100	300	500	600	600
EGWP	1200	2400	1500	600	600

Task 2

Calculate the report using **all** events:

Example:

Input

```
ContractCreatedEvent        1,    100,       2020-01-01
PriceIncreadEvent           1,    100,       2020-02-01
PriceDecreasedEvent         1,    100,       2020-03-01
ConctractTerminatedEvent    1,               2020-04-30
```

Output

	Jan	Feb	Mar	Apr	May
Number of Contracts	1	1	1	1	0
AGWP	100	300	400	500	500
EGWP	1200	2300	1300	1300	500