Coding assignment:

we have subscription data which contains following plans along with subscription dates and actions like start and stop:

3 plans:

1. bronze - 10rs/day

2. silver - 20rs/day

3. gold - 30rs/day

billing rules:

1. in a day, if multiple plans are changed, the most expensive plan is charged

2. in a day, if a plan is stopped, the subscriber is billed for the entire day

3. user can have multiple plan switches during a month, and there can be days when no plan is active,

- in such case, subscriber needs to billed only for the days when the plan was active

4. user can not be billed for the current date if subscription extends upto current date

Input format can be like this:

[{date: ‘2019-08-01’, plan: ‘gold’, action: ‘start’}, {date: ‘2019-08-10’, plan: ‘gold’, action: ‘stop’}]

input: date, plan, action (start, stop) - array of objects containing these keys

Eg:

1 Jan, gold, start

10 Jan, gold, stop

15 Jan, silver, start

21 Jan, silver, stop

21 Jan, bronze, start

1 Mar, bronze, stop

1 Mar, silver, start

10 Mar, silver, stop

11 Mar, gold, start

20 Mar, gold, stop

output: month wise bill details - array of objects containing start date, end date, plan and amount

Eg:

1 Jan - 10 Jan - Gold - 300 rs

15 Jan - 21 Jan - Silver - 140 rs

22 Jan - 31 Jan - Bronze - 100 rs

1 Feb - 29 Feb - Bronze - 290 rs

1 Mar - 10 Mar - Silver - 200 rs

11 Mar - 20 Mar - Gold - 300 rs