Task Management System

Problem statement

You have to develop a task management system that helps a sales organization manage the tasks of the salesmen

Details of the org

1. It has multiple salesmen
2. It org has multiple customers
3. Every customer is approached by a dedicated salesman
4. On a day a salesman can not have more than 5 tasks
5. Every salesman has different types of tasks to do, for the assignment's sake, focus on only one
    1. Talk to a Customer online
6. A task can be created 7 days prior
7. After every interaction, the customer is marked as **new/ hot/ warm/ cold/ converted/ closed**
    1. Default sate is new
8. After every interaction, a follow-up task is created if the customer is not converted
9. A customer can be marked closed if he stays in a cold state for 2 interactions
10. For every conversion, there is an incentive of 1000 rupees
11. Once a customer is approached, the same customer can not be approached by any salesman for 1 month
12. A Customer can not be talked to more than twice a day by a salesman

What needs to be built

1. Add a salesman
2. Add a customer
3. Create a task
4. Mark a task completed with the status of the customer
    1. If it is not converted, take the follow-up day to create another task
    2. If the customer is marked cold twice, the customer should be marked closed and can not be followed up
5. Incentive earned by a salesman on a date
6. No of the tasks of a salesman has for any date - split of closed and open tasks

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Bonus

1. Reschedule a task
2. Incentives earned by a salesman so far
3. Consolidated status of customers - split of statuses of the customers

Notes:

1. Focus on building the working demo first. Demonstrable code is the primary expectation.
2. You're free to use any programming language. You can write CLI, an HTTP API, or even a main method to demonstrate the code.
3. You can free to use the internet for accessing documentation
4. You will be judged on the basis of your modelling and the extensibility of the code.
5. Discuss the problem statement and assumptions first and go ahead with the implementation