Design and implement a production-grade horizontally scalable service that implements a simple ephemeral text message service. You can think of it a little like Snapchat. **The service should implement a hot/cold storage system where expired messages are stored separately from unexpired messages.** You may use any programming language, framework, and storage solution you wish. Note that we have some tests we would like to run against your service so it's important that the endpoints and json attributes are named according to spec.

Please include a readme with
- Instructions on how to compile your service
- Instructions on how to run your service locally
- The decisions you made
- The limitations of your implementation
- What you would do if you had more time
- How you would scale it in the future

There is no official time limit, but the exercise shouldn't take more than a few hours. Ideally we would like you to submit this back to us in 2-4 days, but we realize it may be difficult to finish on work nights so feel to free to take some time over an upcoming weekend.

The service has three endpoints for accessing data:

POST `/chat`

Creates a new text message for passed in username.

Request body properties

Name	Type	Description	Required	Default Value
username	String	The recipient of the message	Y	n/a
text	String	The content of the message	Y	n/a
timeout	Integer	The number of seconds the message should live before expiring	N	60

Example request body

```
{
  {
    "username": "paulrad",
    "text": "This is a message",
    "timeout": 60
  }
}
```

Response

A success response will include:
- a status code of **201 Created**
- a body with a JSON object containing the id of the newly-created message, for example:

```
{ "id": 5488 }
```

GET **/chat/**:id

Returns the message object for the given id. This service can return both expired and unexpired messages.

Response

A success response will include:

- a JSON response which contains the username, text, and expiration date.

Example response body

```
{
    "username": "paulrad",
    "text": "This is a message"
    "expiration_date": "2015-08-12 06:22:52"
}
```

GET **/chats/**:username

Returns a list of all unexpired texts for the user with the given username. **Any texts that are received are then expired and moved into cold storage. They will not show up in subsequent calls to this endpoint.**

Response

A success response will include:

- a JSON array of messages, each of which contains the message's ID and

text.

Example response body

```
[
  {
    "id": 345,
    "text": "This is a message"
  },
  {
    "id": 95958,
    "text": "This is also a message"
  }
]
```