

JSON-based Chat Client

Problem Description

You are required to implement a simple chat client that sends messages to a server. The chat client should take a username and a message text as input, create a Message object, serialize it using JSON, and send it to the server using a socket connection. Your task is to write the necessary code to implement this functionality. Consult the skeleton for information details. The structure of the JSON is shown below:

```
{  
  "username": "example_username",  
  "text": "example_text",  
  "timestamp": "example_timestamp"  
}
```

Input

- A string username representing the username of the person sending the message.
- A string text representing the message text.

Output (with unit test)

Message sent to the server.

```
test attribute passed: Hello, World! is equal to Hello, World!  
test attribute passed: Gracie is equal to Gracie  
test attribute passed: Gracie is equal to Gracie  
test attribute passed: Hello, World! is equal to Hello, World!
```