

```

import java.util.*;

import java.util.stream.*;

public class Chatbot {

    Map<String, List<String>> intents = new HashMap<>();

    public Chatbot() {

        intents.put("greeting", Arrays.asList("hello", "hi", "hey"));

        intents.put("goodbye", Arrays.asList("bye", "see you later", "goodbye"));

    }

    public String preprocessText(String text) {

        return text.toLowerCase(); // Convert to lowercase

    }

    public double calculateSimilarity(String text1, String text2) {

        // Calculate similarity (e.g., cosine similarity or Jaccard similarity)

        // For this example, we'll use a simple matching score

        int score = 0;

        for (String token : text1.split("\\s+")) {

            if (text2.contains(token)) {

                score++;

            }

        }

        return (double) score / text1.split("\\s+").length;

    }

```

```

public String generateResponse(String text) {
    text = preprocessText(text);
    Map<String, Double> similarities = new HashMap<>();
    for (String intent : intents.keySet()) {
        similarities.put(intent, calculateSimilarity(text, intent));
    }
    String intent = similarities.entrySet().stream()
        .max((entry1, entry2) -> entry1.getValue().compareTo(entry2.getValue()))
        .map(Map.Entry::getKey)
        .orElse(null);
    if (intent != null) {
        List<String> responses = intents.get(intent);
        return responses.get(new Random().nextInt(responses.size()));
    } else {
        return "No matching intent found";
    }
}

```

```

public static void main(String[] args) {
    Chatbot chatbot = new Chatbot();
    Scanner scanner = new Scanner(System.in);
    while (true) {
        System.out.print("User: ");
        String userInput = scanner.nextLine();
        String response = chatbot.generateResponse(userInput);
    }
}

```

```
        System.out.println("Chatbot: " + response);  
    }  
}  
}
```

Output:

```
java -cp /tmp/L6JAI8vX9o/Chatbot
```

User: Hey

Chatbot: hello

User: Hi

Chatbot: hi

User: bye

Chatbot: goodbye

User: see you soon

Chatbot: hi

User: