

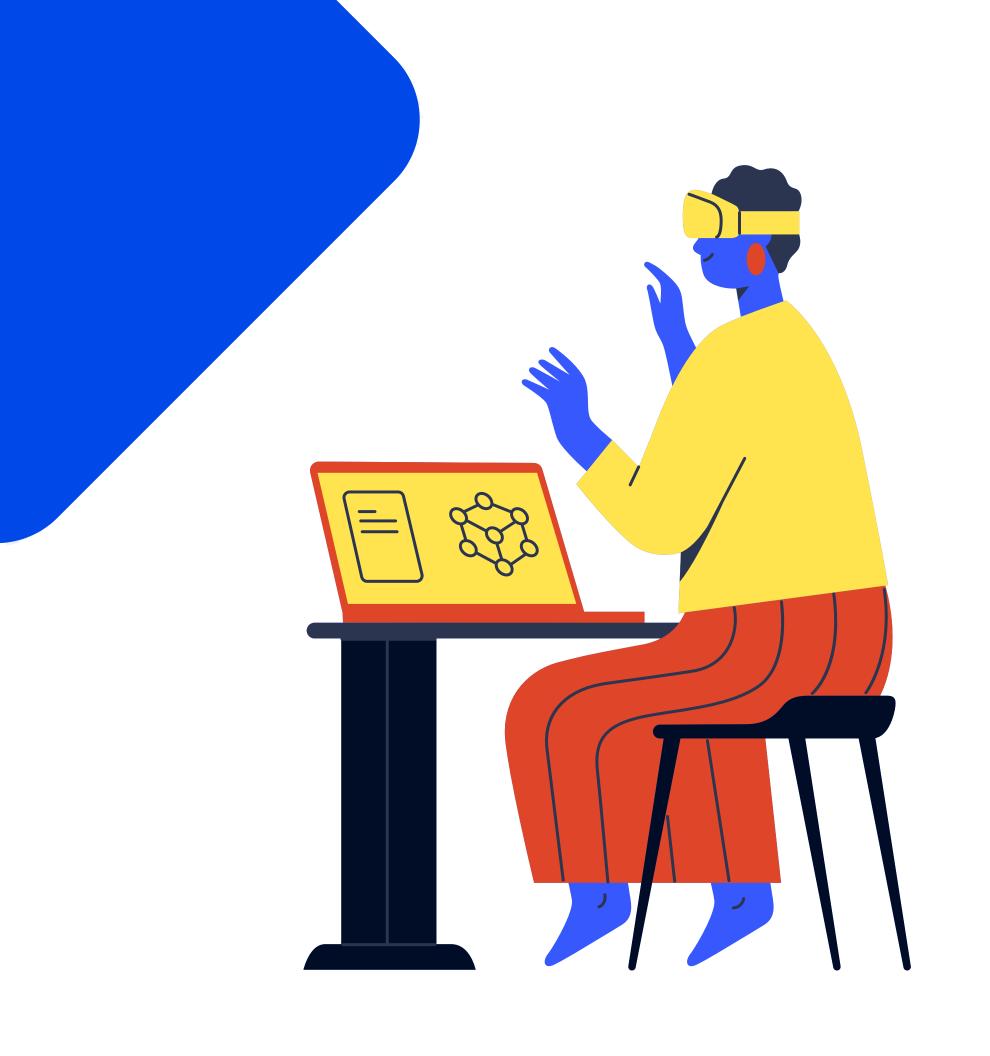
# RGT Chatbot

overview

Shaping the Future of Technology and Innovation

Java based chatbot





### Introduction

Welcome to the Chatbot System Overview

This system leverages Spring Boot and OpenNLP to deliver an intelligent chatbot capable of recognizing user intents and extracting key entities from messages. By training on dynamic data, the bot is designed to understand user requests and respond with relevant information, creating an interactive and responsive experience.

## **Key Concepts**

- Intent Recognition: Recognizing different user intents based on their messages.
- Entity Recognition (NER): Extracting specific entities such as names, locations, or dates from user input.
- OpenNLP for Intent Recognition: Using OpenNLP to train and predict user intents.
- Stanford NLP for Advanced NER:
  Leveraging Stanford NLP for more precise
  entity extraction like PERSON, LOCATION,
  and ORGANIZATION.

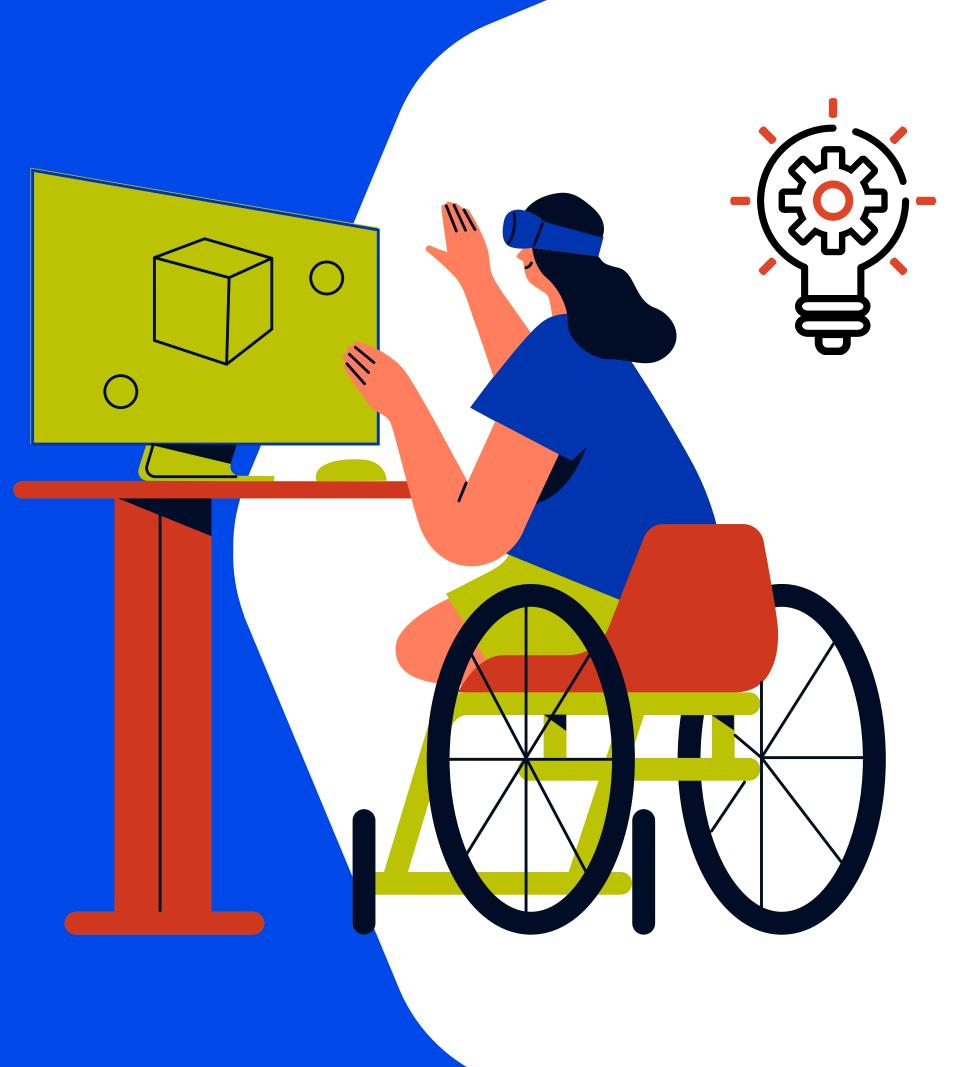
Get Started

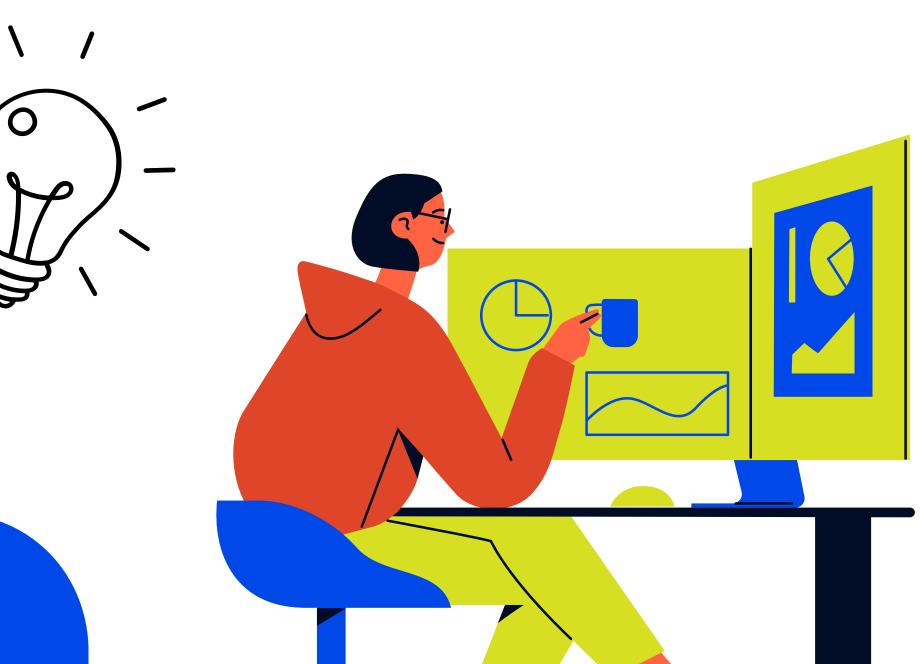


## Intent Recognition

#### Content:

- Definition: The system identifies "intents," which represent user goals or requests.
- Example: If a user asks, "What is the weather like?", the system identifies the intent as "weather."
- Purpose: Helps the bot understand user needs and provide appropriate responses.





# Entity Recognition (NER)

#### Content:

- Definition: The system identifies specific entities like names, dates, or places in user input.
- Example: In the sentence "Hi, I am John, how are you" the entity is "John."
- Purpose: Allows the chatbot to extract meaningful information from user messages for a more precise response.



## **Data Flow Overview**

#### Content:

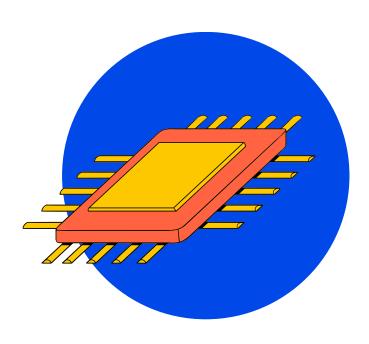
#### 1. Training:

- Intents and entities are trained using data provided through API calls.
- OpenNLP is used to train models for intent recognition and entity extraction.

#### 2. Message Processing:

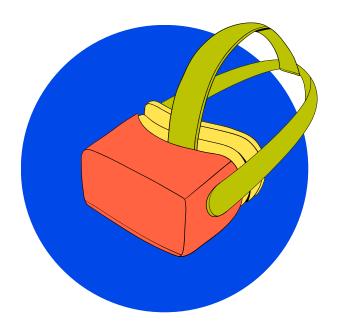
- User messages are processed by the trained models to classify intents and extract entities.
- The recognized intent and entities are returned as a response.

## Technologies Used



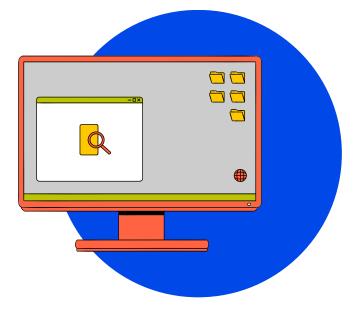
#### **OpenNLP**

Natural language processing tool for intent recognition and entity extraction.



#### **Stanford NLP**

Provides advanced entity recognition capabilities



#### **Spring Boot**

Used for building the RESTful APIs for communication.



# Thank You

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