

# Chatbot using NLP

## Overview:

Develop a chatbot that can answer questions based on a predefined dataset. The chatbot will use Natural Language Processing (NLP) to understand and respond to user queries.

## Key Skills:

- NLP using NLTK or SpaCy
- Building a simple machine learning model
- User interaction through a command-line interface or web application

## Code Snippet:

```
import spacy

from flask import Flask, request, jsonify

app = Flask(__name__)

nlp = spacy.load('en_core_web_sm')

# Function to process user input

def process_input(user_input):

    doc = nlp(user_input)

    if 'name' in user_input:

        return "I'm Chatbot. What's your name?"

    # Add more advanced processing here

    return "I don't understand. Can you rephrase?"
```

```
# Flask route for chatbot
```

```
@app.route('/chat', methods=['POST'])
```

```
def chat():
```

```
    user_input = request.json.get('message')
```

```
    response = process_input(user_input)
```

```
    return jsonify({"response": response})
```

```
if __name__ == "__main__":
```

```
    app.run(debug=True)
```