Step 1: Install Required Libraries

In [2]:
```
pip install nltk
```

```
Requirement already satisfied: nltk in c:\users\dell\anaconda3\lib\site-packages (3.8.1)
Requirement already satisfied: click in c:\users\dell\anaconda3\lib\site-packages (from nltk) (8.0.4)
Requirement already satisfied: joblib in c:\users\dell\anaconda3\lib\site-packages (from nltk) (1.2.0)
Requirement already satisfied: regex>=2021.8.3 in c:\users\dell\anaconda3\lib\site-packages (from nltk) (2022.7.9)
Requirement already satisfied: tqdm in c:\users\dell\anaconda3\lib\site-packages (from nltk) (4.65.0)
Requirement already satisfied: colorama in c:\users\dell\anaconda3\lib\site-packages (from click->nltk) (0.4.6)
Note: you may need to restart the kernel to use updated packages.
```

Step 2: Import Libraries and Define Rules

In [3]:
```
import re
import nltk

# Download NLTK data (if not already downloaded)
nltk.download('punkt')

# Define chatbot rules
rules = {
    r'hello|hi|hey|howdy': 'Hello! I am your chatbot.',
    r'what is your name|who are you': 'I am a simple chatbot.',
    r'how are you': 'I am just a computer program, so I don\'t have feelings, but thanks for asking!',
    r'bye|goodbye': 'Goodbye! Have a great day!'
}
```

```
[nltk_data] Downloading package punkt to
[nltk_data]     C:\Users\dell\AppData\Roaming\nltk_data...
[nltk_data]   Package punkt is already up-to-date!
```

Step 3: Create a Function to Respond to User Input

In [5]:
```
def chatbot_response(user_input):
    for pattern, response in rules.items():
        if re.search(pattern, user_input, re.IGNORECASE):
            return response
    return "I'm sorry, I don't understand that."
```

```
# Test the chatbot
user_input = input("You: ")
response = chatbot_response(user_input)
print("Chatbot:", response)
```

```
You: What is your name
Chatbot: I am a simple chatbot.
```

In [ ]: