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# intent_classifier.py
import pickle
from sklearn.feature_extraction.text import TfidfVectorizer
from sklearn.linear_model import LogisticRegression

# Sample data
intents = {
    "greeting": {
        "patterns": ["hi", "hello", "hey", "good morning"],
        "response": "Hello! How can I help you today?"
    },
    "refund": {
        "patterns": ["I want a refund", "money back", "return my order"],
        "response": "You can request a refund by visiting your Orders page."
    },
    "support": {
        "patterns": ["I need help", "contact support", "talk to someone"],
        "response": "Our support team is available 24/7 at support@revolution.com."
    },
    "thanks": {
        "patterns": ["thank you", "thanks", "appreciate it"],
        "response": "You're welcome! Let us know if you need anything else."
    }
}

# Prepare training data
X, y = [], []
responses = {}

for tag, data in intents.items():
    for pattern in data["patterns"]:
        X.append(pattern)
        y.append(tag)
    responses[tag] = data["response"]

# Train the model
vectorizer = TfidfVectorizer()
X_vec = vectorizer.fit_transform(X)
model = LogisticRegression()
model.fit(X_vec, y)

# Save model
with open("chatbot_model.pkl", "wb") as f:
    pickle.dump((vectorizer, model, responses), f)

    • print("Model trained and saved as chatbot_model.pkl.")

```

Output:

Model trained and saved as chatbot_model.pkl.