# Stance Detection System for Combating Fake News - User Guide

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This user manual explains how to set up the code for running the user interface and generating results for the Stance Detection System. Follow these steps to ensure the application runs correctly.

## Prerequisites:

- Python 3.x
- Access to a terminal or command-line interface

## Initial Setup:

1. **Clone the Repository:**

   Start by cloning the project repository from GitHub to your local system.

   Use code:

2. **Install Required Packages:**

   Navigate to the project's root directory and install all necessary Python dependencies using:

   Use code: **pip install -r requirements.txt**

3. **Download Additional Resources:**
   a. Execute the following command to download the VADER lexicon for sentiment analysis:

      Use code: **python -m nltk.downloader vader_lexicon**

   b. Download the pre-trained Google Word2Vec model from the following link:

      https://drive.google.com/file/d/0B7XkCwpI5KDYNlNUTTlSS21pQmM/edit?pli=1&resourcekey=0-wjGZdNAUop6WykTtMip30g

c. After downloading, extract the .bin file and place it in the **google_model** directory within your project.

## Configuring Paths:

1. **Update Model Path in predict.py:**

   Modify the path in **predict.py** to point to the **best_model.joblib** file within your project's model directory. Replace the existing path with your absolute path.

   Use code: **model = load('path_to_project_root/model/best_model.joblib')**

2. **Update Word2Vec Model Path:**

   In the file **word_to_vec_feature_generator.py** within the **feature_extractor** directory, change the model_path parameter in the **`__init__`** method to the absolute path of the **GoogleNews-vectors-negative300.bin** file.

   Use code:

   **def __init__(self, model_path='path_to_project_root/google_model/GoogleNews-vectors-negative300.bin'):**

## Running the Application:

**Database Setup**:

Navigate to the **djangoproject** directory and run the following commands to set up the database:

Use code:

**python manage.py makemigrations**

**python manage.py migrate**

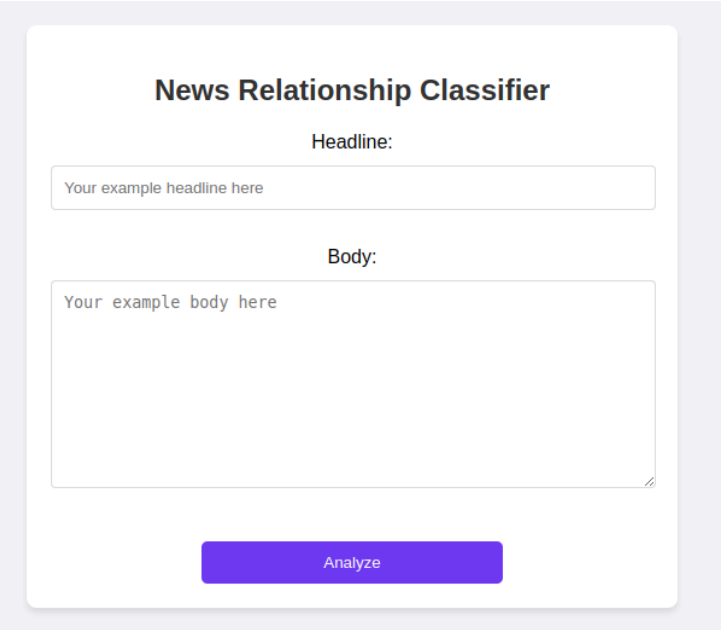
1. **Start the Server:**

   Launch the Django development server with code:

   **python manage.py runserver 8000**

2. **Access the Application:**

   Open a browser and navigate to http://127.0.0.1:8000/ to interact with the system's GUI. The web interface will be displayed, where you can input any headline and body text to perform an analysis.




## Updating the Model:

1. Re-train the Model (Optional):

   If you want to re-train the model with new data or tweaks, navigate back to the project root directory and execute the following command:

   Use code: **python fnc_kfold.py**

   Wait for the process to complete before attempting to use the updated model.

After completing these steps, your Stance Detection System should be fully operational, ready to analyse news headlines and their corresponding body text.