This code performs sentiment analysis on a column of preprocessed text in an excel file using a pre-trained BERT based Turkish classification model.

1. The code imports the necessary libraries, including the Transformers library for loading the pre-trained model and tokenizer, and Pandas for data handling.
2. The pre-trained sentiment analysis model (**savasy/bert-base-turkish-sentiment-cased**) and tokenizer are loaded using **AutoModelForSequenceClassification.from\_pretrained()** and **AutoTokenizer.from\_pretrained()** functions, respectively.
3. A sentiment analysis pipeline is created using the loaded model and tokenizer. This pipeline enables sentiment analysis on individual text inputs.
4. The code loads an Excel file (**MarkedPreprocessedData.xlsx**) into a Pandas DataFrame using the **pd.read\_excel()** function.
5. The **columnName** variable is assigned the name of the column in the DataFrame that contains the preprocessed text.
6. An empty list named **guessed** is initialized to store the predicted sentiment labels.
7. A loop iterates over each comment in the specified column. For each comment, the sentiment analysis pipeline (**sa**) is used to predict the sentiment label.
8. The predicted sentiment label is checked, and a binary value (1 for positive, 0 for negative) is appended to the **guessed** list accordingly.
9. The **write\_col\_name** variable specifies the column name where the guessed sentiment labels will be written in the DataFrame.
10. The **guessed** list is assigned as a new column in the DataFrame using **dataFrame[write\_col\_name] = guessed**.
11. The modified DataFrame is written back to the same Excel file (**MarkedPreprocessedData.xlsx**) using **dataFrame.to\_excel()**, with **index=False** specified to exclude the row index from being written.
12. Finally, the code prints a completion message, indicating that the process is finished.

This code allows to perform sentiment analysis on the preprocessed text in an Excel file and add a new column with the predicted sentiment labels.