

# DEVELOPMENT PROGRAM FOR SPAM CLASSIFIERS.

CODE:

```
# Import the required libraries
from sklearn.feature_extraction.text import CountVectorizer
from sklearn.model_selection import train_test_split
from sklearn.naive_bayes import MultinomialNB
from sklearn.metrics import accuracy_score, classification_report

# Assuming you already have a dataset with labeled spam and non-spam messages
# Load the dataset
data = ...
labels = ...

# Split the dataset into training and validation sets
X_train, X_val, y_train, y_val = train_test_split(data, labels, test_size=0.2, random_state=42)

# Vectorize the text data
vectorizer = CountVectorizer()
X_train_vectorized = vectorizer.fit_transform(X_train)
X_val_vectorized = vectorizer.transform(X_val)

# Select a machine learning algorithm (in this case, Naive Bayes)
classifier = MultinomialNB()

# Train the model
classifier.fit(X_train_vectorized, y_train)

# Evaluate its performance on the validation set
y_pred = classifier.predict(X_val_vectorized)

# Calculate accuracy and other metrics
accuracy = accuracy_score(y_val, y_pred)
report = classification_report(y_val, y_pred)

# Print the results
print("Accuracy:", accuracy)
print("Classification Report:\n", report)
```