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REPORTE DETECTOR DE SPAM

Evaluación del modelo

6. Evaluacion

```python
    # Calcular la precisión
    precision = np.sum(clasificaciones == spam_labels) / len(clasificaciones)
    print(f"Precisión del clasificador: {precision:.2f}")
    recuperacion = np.sum((clasificaciones == 1) & (spam_labels == 1)) / np.sum(spam_labels == 1)
    print(f"Recuperación del clasificador: {recuperacion:.2f}")
```

Python

```
Precisión del clasificador: 0.83
Recuperación del clasificador: 0.30
```

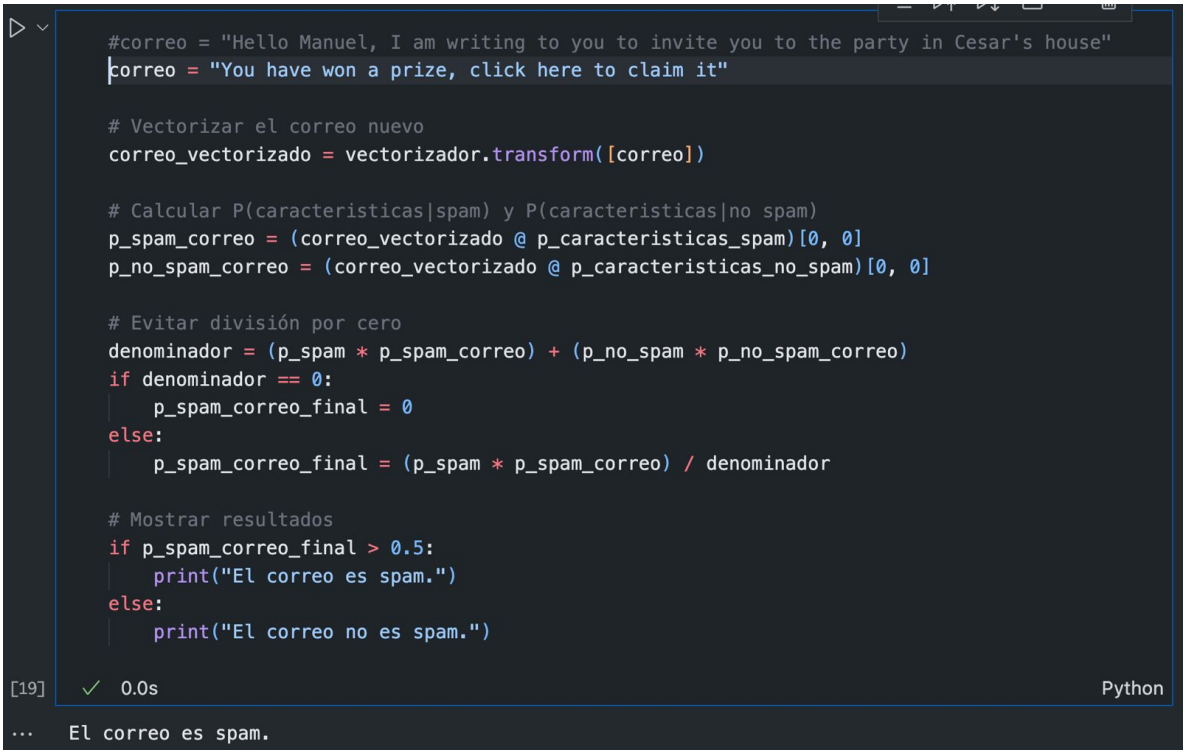
Prueba Correo no spam

```python
correo = "Hello Manuel, I am writing to you to invite you to the party in Cesar's house"
#correo = "You have won a prize, click here to claim it"

# Vectorizar el correo nuevo
correo_vectorizado = vectorizador.transform([correo])

# Calcular P(caracteristicas|spam) y P(caracteristicas|no spam)
p_spam_correo = (correo_vectorizado @ p_caracteristicas_spam)[0, 0]
p_no_spam_correo = (correo_vectorizado @ p_caracteristicas_no_spam)[0, 0]

# Evitar división por cero
denominador = (p_spam * p_spam_correo) + (p_no_spam * p_no_spam_correo)
if denominador == 0:
    p_spam_correo_final = 0
else:
    p_spam_correo_final = (p_spam * p_spam_correo) / denominador

# Mostrar resultados
if p_spam_correo_final > 0.5:
    print("El correo es spam.")
else:
    print("El correo no es spam.")
```

[10] ✓ 0.0s Python

```
El correo no es spam.
```

Prueba Correo spam



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[19] ✓ 0.0s Python

```
El correo es spam.
```