```
## Write your code here
import pandas as pd
import matplotlib.pyplot as plt
# Extract the weights of the linear layer
weights = model.linear.weight.data.numpy().flatten()
features = X.columns
# Create a DataFrame for feature importance
feature_importance = pd.DataFrame({'Feature': features, 'Importance': weights})
feature_importance = feature_importance.iloc[feature_importance['Importance'].
                                              abs().argsort()[::-1]]
print(feature_importance)
#plot fearture importance
plt.figure(figsize=(8, 6))
plt.bar(feature_importance['Feature'], feature_importance['Importance'])
plt.xlabel('Features')
plt.ylabel('Importance')
plt.title('Feature Importance')
plt.xticks(rotation=45)
plt.show()
```





