Program :-

```
import pandas as pd
import numpy as np
from sklearn.linear_model import LinearRegression
from sklearn.model_selection import train_test_split
from sklearn.metrics import mean_squared_error
import matplotlib.pyplot as plt

df = pd.read_csv('/home/student/Desktop/sinan/lois_continuous.csv')
cond = 'Conductivity 25C continuous'
temp = 'Temperature water continuous'

# Remove rows with missing values
df = df.dropna(subset=[cond, temp])

x = df[[temp]]
y = df[cond]

x_train, x_test, y_train, y_test = train_test_split(x, y, test_size=0.3, random_state=1)

clf = LinearRegression()
clf = clf.fit(x_train, y_train)
y_pred = clf.predict(x_test)

plt.scatter(x, y, label='Data points')
plt.plot(x_test, y_pred, color='red', label='Linear Regression')
plt.title('Linear Regression of Temperature and Conductivity')
plt.xlabel(temp)
plt.ylabel(cond)
plt.legend()
plt.show()

mse = mean_squared_error(y_test, y_pred)
print('Root Mean Squared Error:', np.sqrt(mse))
```

Output :-

```
(base) student@cseadmin:~/Desktop/sinan$ python3 linearregression.py
Root Mean Squared Error: 356.32851122935597
(base) student@cseadmin:~/Desktop/sinan$
```