

Simple Linear Regression

```
df=pd.read_excel('https://archive.ics.uci.edu/ml/machine-learning-databases/0024
2/ENB2012_data.xlsx')
#rename columns
column_names = {'X1': 'Relative_Compactness', 'X2': 'Surface_Area',
                'X3': 'Wall_Area', 'X4': 'Roof_Area', 'X5': 'Overall_Height',
                'X6': 'Orientation', 'X7': 'Glazing_Area',
                'X8': 'Glazing_Area_Distribution',
                'Y1': 'Heating_Load', 'Y2': 'Cooling_Load'}

df = df.rename(columns=column_names)
#select a sample of the dataset
simple_linear_reg_df = df[['Relative_Compactness', 'Cooling_Load']]
                        .sample(15, random_state=2)
#regression plot
sns.regplot(x="Relative_Compactness", y="Cooling_Load",
            data=simple_linear_reg_df)
```