

In [1]: *# Multiple linear regression*

```
# Importing the libraries  
import numpy as np  
import matplotlib.pyplot as plt  
import pandas as pd
```

In [2]: *# Importing the dataset*

```
dataset = pd.read_csv("/home/forbidden_devil/Machine Learning A-Z/Part 2 - Regression/Section 5 - Multiple Linear Regression/50_Startups.csv")  
X = dataset.iloc[:, :-1].values  
y = dataset.iloc[:, 4].values
```

In [3]: *# Encoding categorical data*

```
from sklearn.preprocessing import LabelEncoder, OneHotEncoder  
labelencoder = LabelEncoder()  
X[:, 3] = labelencoder.fit_transform(X[:, 3])  
onehotencoder = OneHotEncoder(categorical_features = [3])  
X = onehotencoder.fit_transform(X).toarray()  
  
# Avoiding the dummy variable trap  
X = X[:, 1:]
```

In [4]: *# Splitting the dataset into the Training set and Test set*

```
from sklearn.model_selection import train_test_split  
X_train, X_test, y_train, y_test = train_test_split(X,  
y, test_size = 0.2, random_state = 0)
```

In [5]: *# Fitting Multiple Linear Regression to the Training set*

```
from sklearn.linear_model import LinearRegression  
regressor = LinearRegression()  
regressor.fit(X_train, y_train)
```

Out[5]: LinearRegression(copy_X=True, fit_intercept=True, n_jobs=1, normalize=False)

In [6]: *# Predicting the Test set results*

```
y_pred = regressor.predict(X_test)  
regressor.score(X_test, y_test)
```

Out[6]: 0.9347068473282922