Develop a program to implement Multiple Linear Regression model and evaluate the model by verifying the performance
"""

```
import pandas as pd
import numpy as np
ipl_auction_df=pd.read_csv('IPL IMB381IPL2013.csv')

X_features = ipl_auction_df.columns
X_features

X_features = ['AGE', 'COUNTRY', 'PLAYING ROLE',
'T-RUNS', 'T-WKTS', 'ODI-RUNS-S', 'ODI-SR-B',
'ODI-WKTS', 'ODI-SR-BL', 'CAPTAINCY EXP', 'RUNS-S',
'HS', 'AVE', 'SR-B', 'SIXERS', 'RUNS-C', 'WKTS',
'AVE-BL', 'ECON', 'SR-BL']
len(X_features)

ipl_auction_df['PLAYING ROLE'].unique()
pd.get_dummies(ipl_auction_df['PLAYING ROLE'])[0:5]

categorical_features = ['AGE', 'COUNTRY', 'PLAYING ROLE','CAPTAINCY EXP']
ipl_auction_encoded_df = pd.get_dummies(ipl_auction_df[X_features],columns =
categorical_features,drop_first = True)

len(ipl_auction_encoded_df.columns)

X_features = ipl_auction_encoded_df.columns
X_features

from sklearn.model_selection import train_test_split
X = sm.add_constant( ipl_auction_encoded_df )
Y = ipl_auction_df['SOLD PRICE']
train_X, test_X, train_y, test_y = train_test_split(X ,Y,train_size = 0.8,random_state = 42 )

ipl_model_1 = sm.OLS(train_y, train_X).fit()
ipl_model_1.summary2()
```