ASSIGNMENT NO 3

NAME: DANIYA

Q1: Take 50 startups of any two countries and find out which country is going to provide best profit in future.

ACCURACY:

```
ACCURACY
FOR STATE NEWYORK : 0.8661717426627147
FOR STATE FLORIDA : 0.8263002425652147
FOR STATE CALIFORNIA :  0.9541247922495528
```

PREDICTION:

```
x_pred=np.array([[61994.48,115641.28,91131.24]])
```

```
ans_pred=coun_pro(x_pred)
```

```
ans_pred
```

	country	Max_Profit
0	FLORIDA	104445.533849

Q2: Annual temperature between two industries is given. Predict the temperature in 2016 and 2017 using the past data of both country.

ACCURACY:

```
ind1_acc=r2_score(y1_test,y1_pred)
print(r2_score(y1_test,y1_pred))
```

```
0.8221433641462763
```

```
ind2_acc=r2_score(y2_test,y2_pred)
print(r2_score(y2_test,y2_pred))
```

```
0.824968369371956
```

PREDICTION:

```
In [47]: res_df=pre_temp(2017)
         res_df
```

Out[47]:

	source	year	Mean_temp
0	GCAG	2017	[0.7744863107142805]
1	GISTEMP	2017	[0.786545329372359]

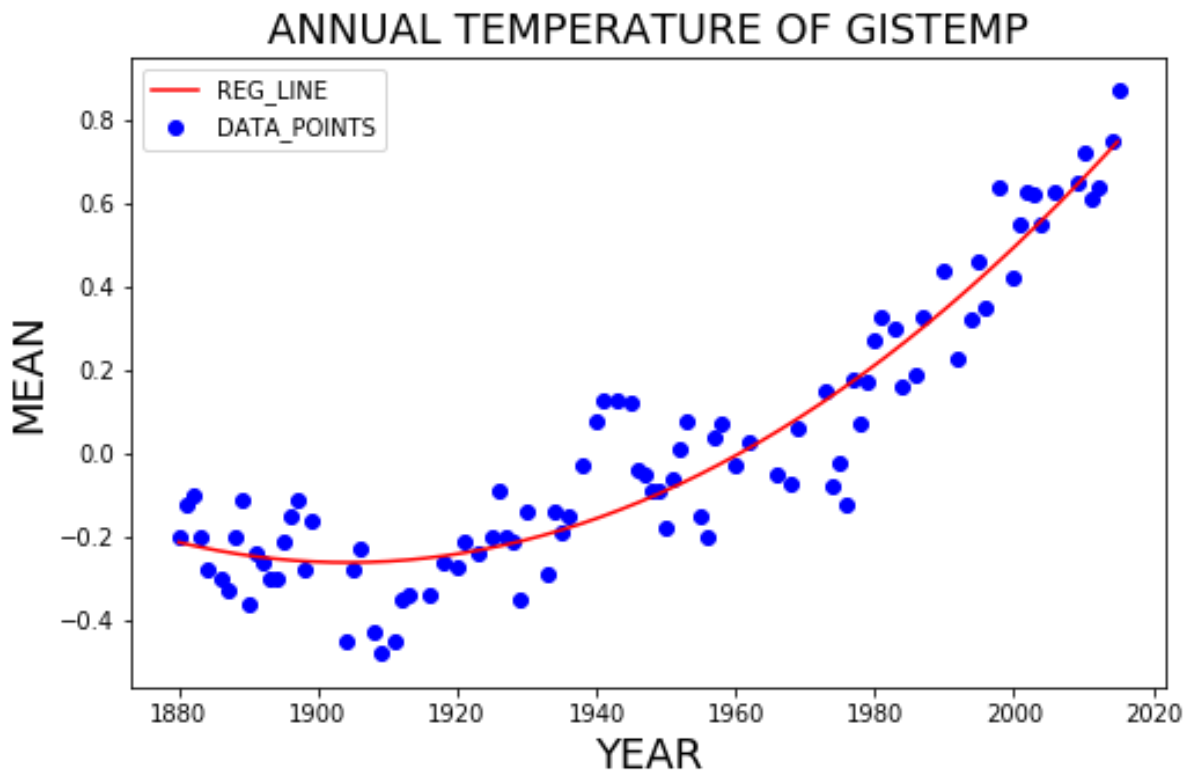
```
In [48]: res_df=pre_temp(2016)
         res_df
```

Out[48]:

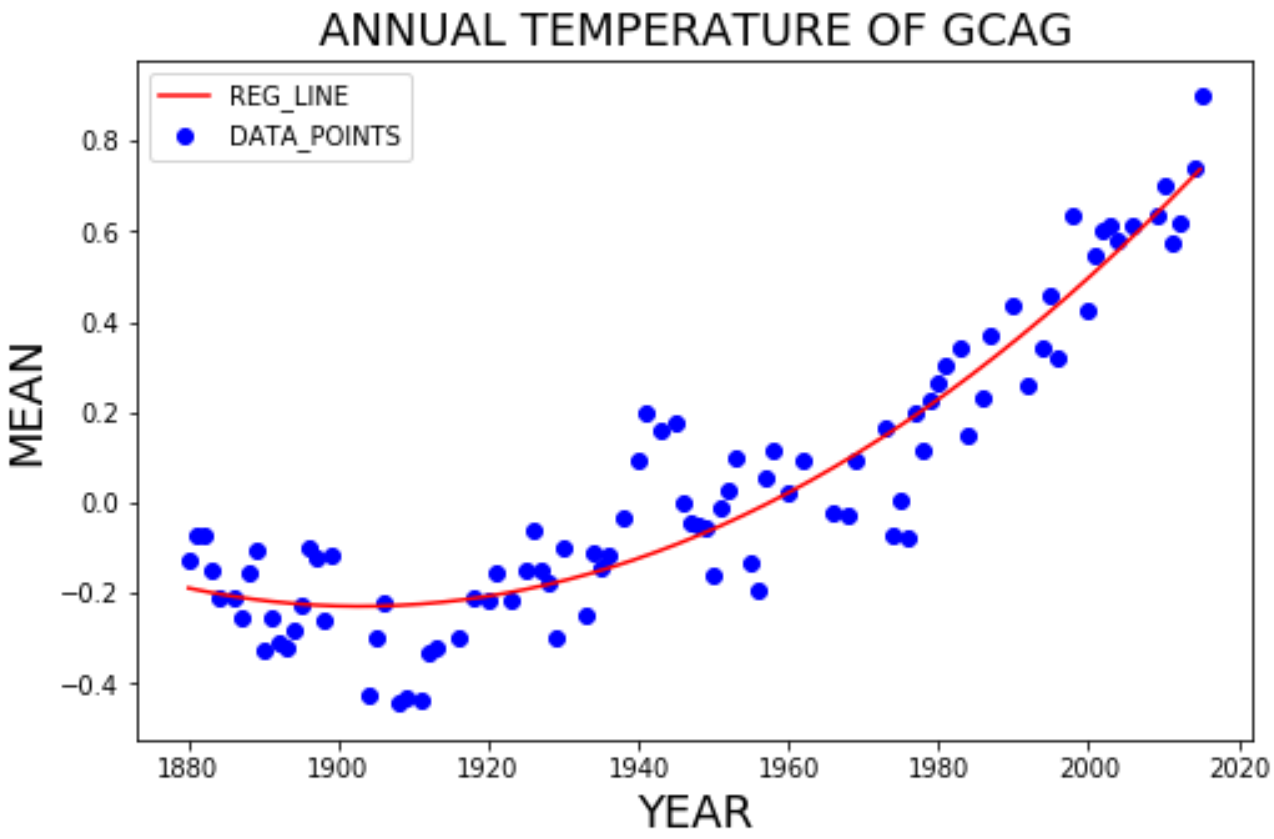
	source	year	Mean_temp
0	GCAG	2016	[0.7569826920633886]
1	GISTEMP	2016	[0.768048508175923]

GRAPH:

INDUSTRY GISTEMP



INDUSTRY GCAG



Q3: Data of global production of CO2 of a place is given between 1970s to 2010. Predict the CO2 production for the years 2011, 2012 and 2013 using the old data set.

PREDICTION:

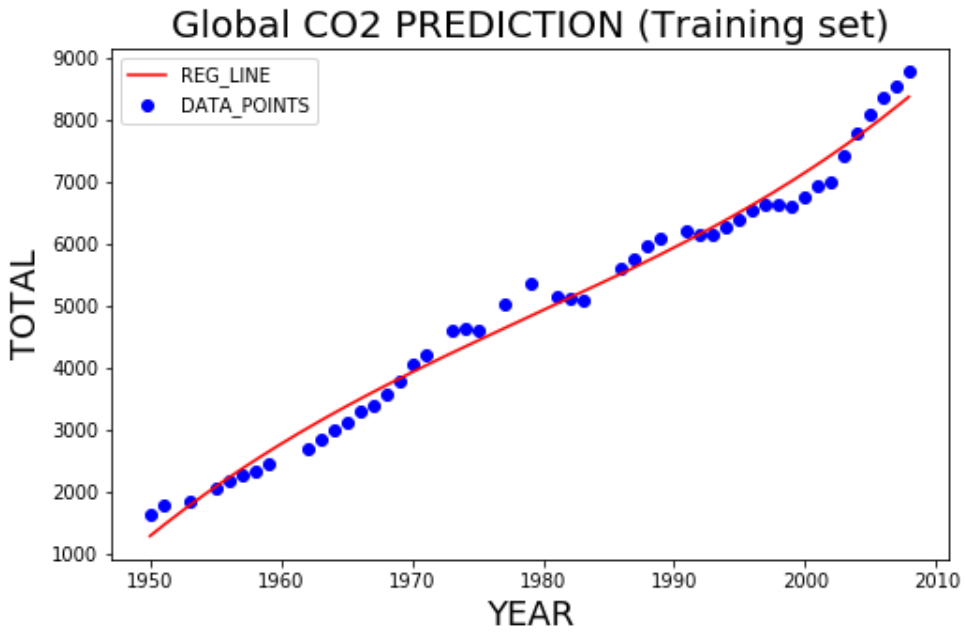
```
In [25]: PolyReg.predict(polynom.fit_transform([[2011]]))
Out[25]: array([9758.798169])

In [26]: PolyReg.predict(polynom.fit_transform([[2012]]))
Out[26]: array([9138.26772202])

In [27]: PolyReg.predict(polynom.fit_transform([[2013]]))
Out[27]: array([9338.69438989])
```

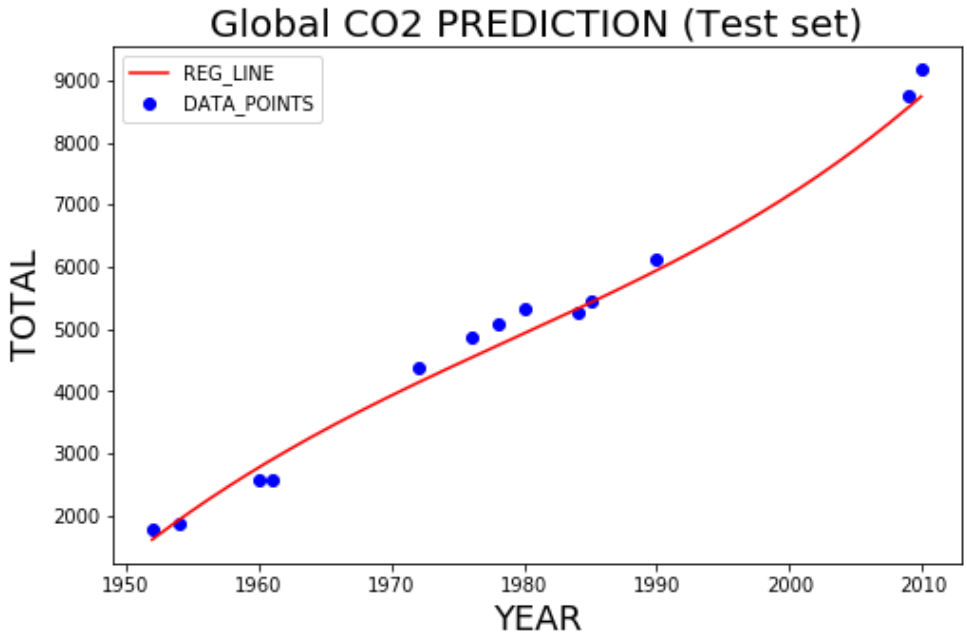
ACCURACY:

```
poly_acc=r2_score(y_test,y2_pred)
print(r2_score(y_test,y2_pred))
```

```
0.9869158417219419
```

GRAPH:





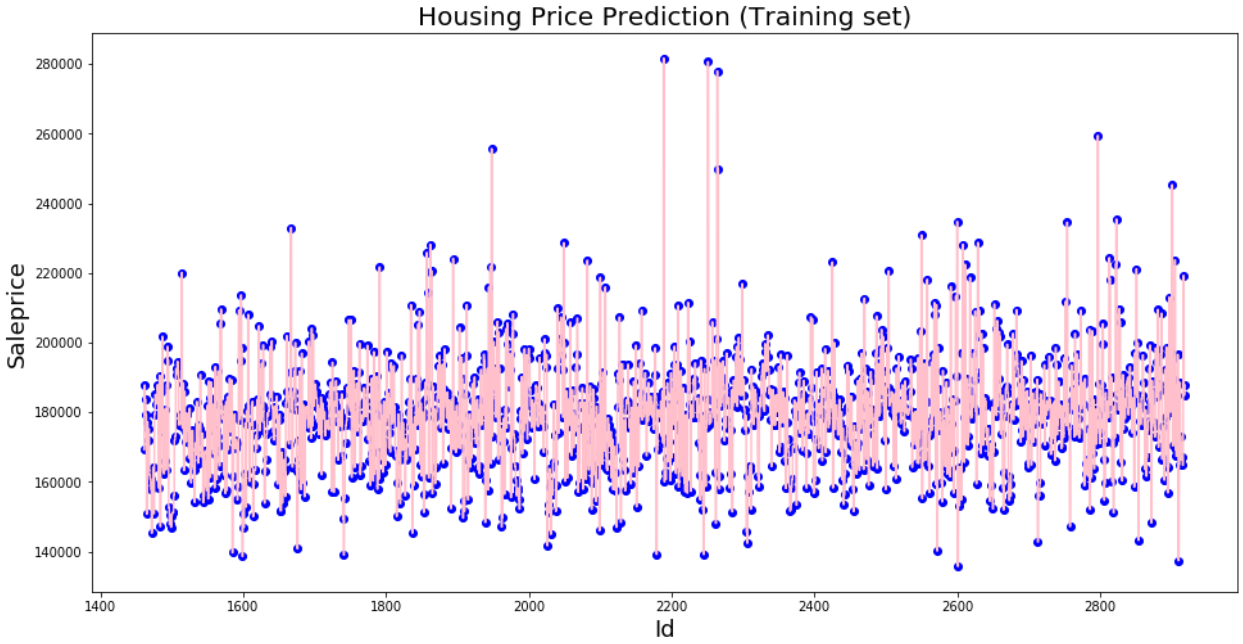
Q4: Housing price according to the ID is assigned to every-house. Perform future analysis where when ID is inserted the housing price is displayed.

ACCURACY:

```
: DTR_reg_acc=r2_score(y_test,DTR_y_pred)
  print(r2_score(y_test,DTR_y_pred))
```

```
1.0
```

GRAPH:



PREDICTION:

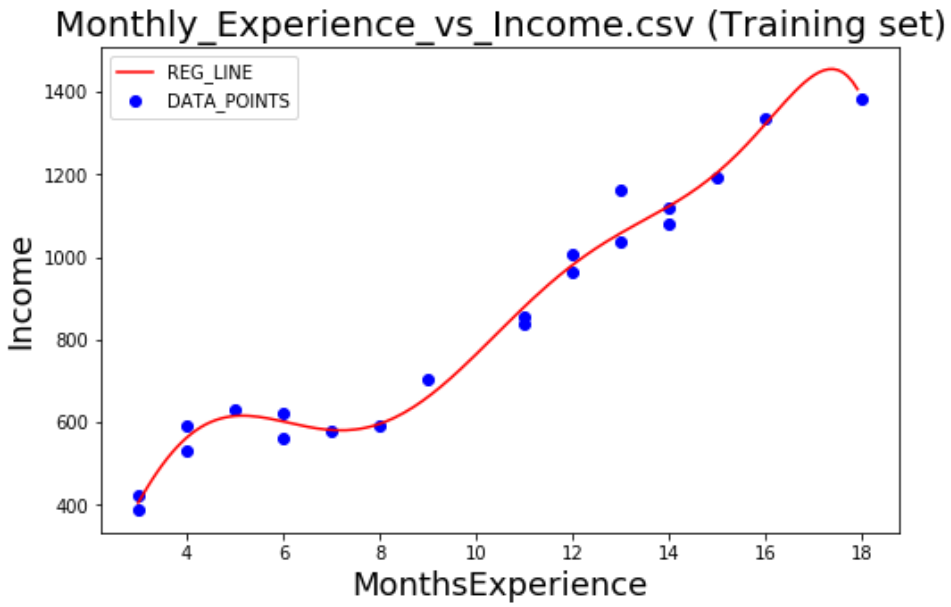
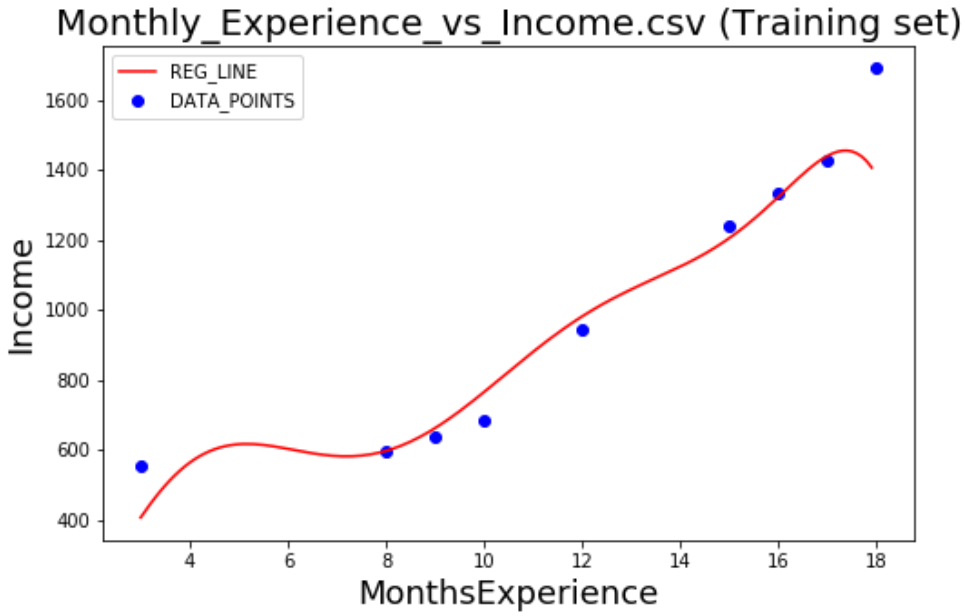
```
DTR.predict([[2900]])
```

```
array([183972.07105667])
```

Q5: Data of monthly experience and income distribution of different employs is given. Perform regression.

ACCURACY:

```
poly_reg_acc=r2_score(y_test,y_pred)
print(r2_score(y_test,y_pred))
```

```
0.9109767354422075
```

GRAPH: