```python
# Mean Square Error_R2Score_Mean Score Log Error_Mean Absolute_Error


import numpy as np

import matplotlib.pyplot as plt

from sklearn.linear_model import LinearRegression

from sklearn.metrics import mean_squared_error, r2_score, mean_squared_log_error, 

x = np.random.rand(100,1)

y = 2.0 + 5*x + 0.5*np.random.randn(100,1)

linreg = LinearRegression()

linreg.fit(x,y)

ypredict = linreg.predict(x)

print('The intercep alpha : \n', linreg.intercept_)

print('Coefficent beta : \n', linreg.coef_)

# The mean squared error

print("Mean squared eroor : %.2f" % mean_squared_error(y, ypredict))


#Explained variance scroe : 1 is perfect prediction

print('Variance Score %.2f' % r2_score(y, ypredict))

# Mean squared log error
print('Mean squared log error: %.2f' % mean_absolute_error(y, ypredict))

plt.plot(x, ypredict, "r-")
plt.plot(x, y, 'ro')
plt.axis([0.0,1.0,1.5,7.0])
plt.xlabel(r'$x$')
plt.ylabel(r'$y$')
plt.title(r'Linear Regression fit ')
plt.show()
```

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The intercep alpha :
 [2.07384358]
Coefficent beta :
 [[4.94443187]]
Mean squared eroor : 0.23
Variance Score 0.90
Mean squared log error: 0.38
```


Linear Regression fit