Assignment (ML)

In [ ]:
```
import numpy as np
import seaborn as sns
from sklearn.linear_model import LinearRegression
from sklearn.model_selection import train_test_split
```

In [ ]:
```
df = sns.load_dataset('titanic')
df.head(5)
```

Out[ ]:

	survived	pclass	sex	age	sibsp	parch	fare	embarked	class	who	adult_male	deck
0	0	3	male	22.0	1	0	7.2500	S	Third	man	True	NaN
1	1	1	female	38.0	1	0	71.2833	C	First	woman	False	C
2	1	3	female	26.0	0	0	7.9250	S	Third	woman	False	NaN
3	1	1	female	35.0	1	0	53.1000	S	First	woman	False	C
4	0	3	male	35.0	0	0	8.0500	S	Third	man	True	NaN

In [ ]:
```
X = df[["pclass"]]
Y = df[["fare"]]
```

In [ ]:
```
# train_test_split

X_train, X_test, Y_train, Y_test = train_test_split(X, Y, test_size=0.25)
```

In [ ]:
```
model = LinearRegression()
```

In [ ]:
```
model.fit(X_train, Y_train)
```

Out[ ]:
```
LinearRegression
LinearRegression()
```

In [ ]:
```
model.score(X_test, Y_test)
```

Out[ ]:
```
0.2597240062067556
```

In [ ]:
```
model.predict([[2]])
```

```
c:\Users\hafiz\miniconda3\lib\site-packages\sklearn\base.py:450: UserWarning: X does
not have valid feature names, but LinearRegression was fitted with feature names
  warnings.warn(
```

Out[ ]:
```
array([[41.4767032]])
```

In [ ]:
```

```