Feature Scaling ~ Is a practice where you preprocess the dataset in order to work with the ML model.
Categorical Variable ~ These are type of values, that are non-numerical.

Label Encoding ~ It is a procedure to handle the categorical variable with respect to Ordinal Mechanism.
Ordinal Mechanism ~ It is a ranking system.

```
import pandas as pd
```

```
df = pd.read_csv('/content/titanic.csv')
```

```
df.head()
```

	PassengerId	Survived	Pclass	Name	Sex	Age	SibSp	Parch	Ticket	Fare	Cabin	Embarked
0	1	0	3	Braund, Mr. Owen Harris	male	22.0	1	0	A/5 21171	7.2500	NaN	S
1	2	1	1	Cumings, Mrs. John Bradley (Florence Briggs Th...	female	38.0	1	0	PC 17599	71.2833	C85	C
2	3	1	3	Heikkinen, Miss. Laina	female	26.0	0	0	STON/O2. 3101282	7.9250	NaN	S
3	4	1	1	Futrelle, Mrs. Jacques Heath (Lily May Peel)	female	35.0	1	0	113803	53.1000	C123	S

```
from sklearn.preprocessing import LabelEncoder
```

```
label_encoder = LabelEncoder()
```

```
label_encoding_for_sex = label_encoder.fit_transform(df.Sex)
```

```
# label_encoding_for_sex
```

```
label_encoder.classes_
```

```
array(['female', 'male'], dtype=object)
```

```
df['Sex_Encoded'] = label_encoding_for_sex
```

```
df.head()
```

	PassengerId	Survived	Pclass	Name	Sex	Age	SibSp	Parch	Ticket	Fare	Cabin	Embarked	Sex_Encoded
0	1	0	3	Braund, Mr. Owen Harris	male	22.0	1	0	A/5 21171	7.2500	NaN	S	1
1	2	1	1	Cumings, Mrs. John Bradley (Florence Briggs Th...	female	38.0	1	0	PC 17599	71.2833	C85	C	0
2	3	1	3	Heikkinen, Miss. Laina	female	26.0	0	0	STON/O2. 3101282	7.9250	NaN	S	0

```
df.Embarked.isna().sum()
```

```
2
```

```
df.Embarked.unique()
```

```
array(['S', 'C', 'Q', nan], dtype=object)
```

```
df.dropna(subset = ['Embarked'], inplace=True)
```

```
df.Embarked.unique()
```

```
array(['S', 'C', 'Q'], dtype=object)
```

```
embarked_encoded = label_encoder.fit_transform(df.Embarked)
```

```
# embarked_encoded
```

```
label_encoder.classes_
```

```
array(['C', 'Q', 'S'], dtype=object)
```

```
df['Embarked_encoded'] = embarked_encoded
```

```
df.head()
```

	PassengerId	Survived	Pclass	Name	Sex	Age	SibSp	Parch	Ticket	Fare	Cabin	Embarked	Sex_Encoded	Embarked_enc
0	1	0	3	Braund, Mr. Owen Harris	male	22.0	1	0	A/5 21171	7.2500	NaN	S	1	
1	2	1	1	Cumings, Mrs. John Bradley (Florence Briggs Th...	female	38.0	1	0	PC 17599	71.2833	C85	C	0	

Heikkinen