In [1]:

```
import pandas as pd
```

In [2]:

```
import numpy as np
```

In [3]:

```
df = pd.read_csv(r'https://github.com/YBI-Foundation/Dataset/raw/main/Customer%20Purchase.c
```

In [4]:

```
df.head()
```

Out[4]:

	Customer ID	Age	Gender	Education	Review	Purchased
0	1021	30	Female	School	Average	No
1	1022	68	Female	UG	Poor	No
2	1023	70	Female	PG	Good	No
3	1024	72	Female	PG	Good	No
4	1025	16	Female	UG	Average	No

In [5]:

```
df.shape
```

Out[5]:

```
(50, 6)
```

In [6]:

```
df.columns
```

Out[6]:

```
Index(['Customer ID', 'Age', 'Gender', 'Education', 'Review', 'Purchased'],
dtype='object')
```

In [7]:

```
df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 50 entries, 0 to 49
Data columns (total 6 columns):
 #   Column       Non-Null Count  Dtype 
---  ------       --------------  ----- 
 0   Customer ID  50 non-null     int64 
 1   Age          50 non-null     int64 
 2   Gender       50 non-null     object
 3   Education    50 non-null     object
 4   Review       50 non-null     object
 5   Purchased    50 non-null     object
dtypes: int64(2), object(4)
memory usage: 2.5+ KB
```

In [13]:

```
X = df[['Gender','Education','Review']]
```

In [14]:

```
X
```

Out[14]:

	Gender	Education	Review
0	Female	School	Average
1	Female	UG	Poor
2	Female	PG	Good
3	Female	PG	Good
4	Female	UG	Average
5	Female	School	Average
6	Male	School	Good
7	Female	School	Poor
8	Female	UG	Average
9	Male	UG	Good
10	Female	UG	Good
11	Male	UG	Good
12	Male	School	Poor
13	Female	School	Average
14	Male	PG	Poor
15	Male	UG	Poor
16	Male	UG	Poor
17	Female	UG	Poor
18	Male	School	Good
19	Male	PG	Poor
20	Female	School	Average
21	Male	PG	Average
22	Female	PG	Poor
23	Female	School	Good
24	Female	PG	Average
25	Female	School	Good
26	Female	PG	Poor
27	Female	PG	Poor
28	Male	School	Poor
29	Female	UG	Average
30	Male	UG	Average
31	Female	School	Poor
32	Male	UG	Average
33	Female	PG	Good

	Gender	Education	Review
34	Male	School	Average
35	Male	School	Poor
36	Female	UG	Good
37	Male	PG	Average
38	Female	School	Good
39	Male	PG	Poor
40	Male	School	Good
41	Male	PG	Good
42	Female	PG	Good
43	Male	PG	Poor
44	Female	UG	Average
45	Male	PG	Poor
46	Female	PG	Poor
47	Female	PG	Good
48	Female	UG	Good
49	Female	UG	Good

In [15]:

```
from sklearn.preprocessing import OrdinalEncoder
```

In [16]:

```
oe = OrdinalEncoder()
```

In [17]:

```
X = oe.fit_transform(X)
```

In [18]:

```
X
```

Out[18]:

```
array([[0., 1., 0.],
       [0., 2., 2.],
       [0., 0., 1.],
       [0., 0., 1.],
       [0., 2., 0.],
       [0., 1., 0.],
       [1., 1., 1.],
       [0., 1., 2.],
       [0., 2., 0.],
       [1., 2., 1.],
       [0., 2., 1.],
       [1., 2., 1.],
       [1., 1., 2.],
       [0., 1., 0.],
       [1., 0., 2.],
       [1., 2., 2.],
       [1., 2., 2.],
       [0., 2., 2.],
       [1., 1., 1.],
       [1., 0., 2.],
       [0., 1., 0.],
       [1., 0., 0.],
       [0., 0., 2.],
       [0., 1., 1.],
       [0., 0., 0.],
       [0., 1., 1.],
       [0., 0., 2.],
       [0., 0., 2.],
       [1., 1., 2.],
       [0., 2., 0.],
       [1., 2., 0.],
       [0., 1., 2.],
       [1., 2., 0.],
       [0., 0., 1.],
       [1., 1., 0.],
       [1., 1., 2.],
       [0., 2., 1.],
       [1., 0., 0.],
       [0., 1., 1.],
       [1., 0., 2.],
       [1., 1., 1.],
       [1., 0., 1.],
       [0., 0., 1.],
       [1., 0., 2.],
       [0., 2., 0.],
       [1., 0., 2.],
       [0., 0., 2.],
       [0., 0., 1.],
       [0., 2., 1.],
       [0., 2., 1.]])
```

In [19]:

```
oe.categories_
```

Out[19]:

```
[array(['Female', 'Male'], dtype=object),
 array(['PG', 'School', 'UG'], dtype=object),
 array(['Average', 'Good', 'Poor'], dtype=object)]
```

In [21]:

```
oe.inverse_transform([[0,0,0]])
```

Out[21]:

```
array([['Female', 'PG', 'Average']], dtype=object)
```

In [22]:

```
oe.inverse_transform([[1,1,1]])
```

Out[22]:

```
array([['Male', 'School', 'Good']], dtype=object)
```

In [23]:

```
oe.inverse_transform([[1,2,2]])
```

Out[23]:

```
array([['Male', 'UG', 'Poor']], dtype=object)
```

In [24]:

```
X = df[['Gender','Education','Review']]
```

In [26]:

```
oe = OrdinalEncoder(categories=[['Male','Female'],['School','UG','PG'],['Poor','Average','G
```

In [27]:

```
X = oe.fit_transform(X)
```

In [28]:

```
oe.categories_
```

Out[28]:

```
[array(['Male', 'Female'], dtype=object),
 array(['School', 'UG', 'PG'], dtype=object),
 array(['Poor', 'Average', 'Good'], dtype=object)]
```

In [ ]:

```

```