```
import pandas as pd
import numpy as no
```

creating initial dataframe

```
bridge_types = ('Arch','Bean','Truss','Cantilever','Tied Arch','Suspention','Cable')
bridge_df = pd.DataFrame(bridge_types,columns=['Bridge_Types'])
bridge_df['Bridge_Types'] = bridge_df['Bridge_Types'].astype('category')
bridge_df['Bridge_Types_Cat'] = bridge_df['Bridge_Types'].cat.codes
print(bridge_df)
```

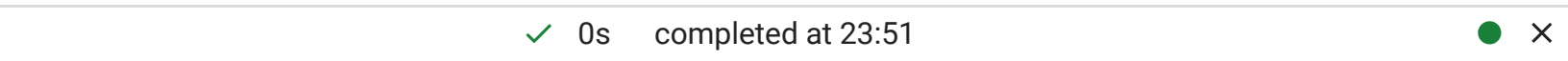
```
       Bridge_Types  Bridge_Types_Cat
     0         Arch                 0
     1         Bean                 1
     2        Truss                 6
     3   Cantilever                 3
     4    Tied Arch                 5
     5   Suspention                 4
     6        Cable                 2
```

using skikit learn

```
from sklearn.preprocessing import LabelEncoder


bridge_types = ('Arch','Bean','Truss','Cantilever','Tied Arch','Suspention','Cable')
bridge_df = pd.DataFrame(bridge_types,columns=['Bridge_Types'])
labelencoder = LabelEncoder()
bridge_df['Bridge_Types_Cat'] = labelencoder.fit_transform(bridge_df['Bridge_Types'])
print(bridge_df)
```

```
       Bridge_Types  Bridge_Types_Cat
     0         Arch                 0
     1         Bean                 1
     2        Truss                 6
     3   Cantilever                 3
     4    Tied Arch                 5
     5   Suspention                 4
     6        Cable                 2
```


0s
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