```
In [3]: #This is a simple classfying module, which is used to determine the glass type depending on it's components' pr
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```
In [ ]: import pandas as pd
        import numpy as np
        import seaborn as sns
        from sklearn.neighbors import KNeighborsClassifier
        from sklearn.model_selection import train_test_split
```

```
In [2]: DF = pd.read_csv("C:/Users/Home/Desktop/glass.csv")
```

```
In [27]: DF.describe()
```

Out[27]:

	RI	Na	Mg	Al	Si	K	Ca	Ba	Fe	Type
count	214.000000	214.000000	214.000000	214.000000	214.000000	214.000000	214.000000	214.000000	214.000000	214.000000
mean	1.518365	13.407850	2.684533	1.444907	72.650935	0.497056	8.956963	0.175047	0.057009	2.780374
std	0.003037	0.816604	1.442408	0.499270	0.774546	0.652192	1.423153	0.497219	0.097439	2.103739
min	1.511150	10.730000	0.000000	0.290000	69.810000	0.000000	5.430000	0.000000	0.000000	1.000000
25%	1.516523	12.907500	2.115000	1.190000	72.280000	0.122500	8.240000	0.000000	0.000000	1.000000
50%	1.517680	13.300000	3.480000	1.360000	72.790000	0.555000	8.600000	0.000000	0.000000	2.000000
75%	1.519157	13.825000	3.600000	1.630000	73.087500	0.610000	9.172500	0.000000	0.100000	3.000000
max	1.533930	17.380000	4.490000	3.500000	75.410000	6.210000	16.190000	3.150000	0.510000	7.000000

```
In [10]: X = DF.drop("Type", axis = 1)
         y = DF["Type"]
```

```
In [15]: classifier = KNeighborsClassifier(n_neighbors = 5)
```

```
In [16]: classifier.fit(X,y)

Out[16]: KNeighborsClassifier()
```

```
In [17]: X_train, X_test, y_train, y_test = train_test_split(X, y, test_size = 0.3, random_state = 3)
```

```
In [18]: Pred = classifier.predict(X_test)
```

```
In [20]: Val = classifier.fit(X_train, y_train)
```

```
In [23]: classifier.score(X_test, y_test)

Out[23]: 0.7230769230769231
```

```
In [25]: classifier.score(X, y)

Out[25]: 0.7429906542056075
```

```
In [26]: Pred

Out[26]: array([3, 1, 2, 2, 2, 7, 7, 2, 1, 7, 2, 2, 1, 1, 5, 5, 2, 7, 1, 2, 7, 2,
                2, 1, 1, 1, 7, 1, 1, 5, 1, 2, 5, 1, 1, 1, 2, 6, 6, 1, 6, 2, 1, 1,
                7, 3, 1, 1, 7, 5, 1, 2, 1, 1, 1, 7, 1, 1, 1, 2, 2, 2, 1, 2, 1],
               dtype=int64)
```