In [ ]:
```
import pandas as pd
import numpy as np
data = pd.read_csv('C:\\Users\\huzai\\OneDrive\\Desktop\\fruit.txt', delimiter='\t')
```

In [ ]:
```
X = data[['mass', 'width', 'height', 'color_score']]
y = data['fruit_label']
```

In [ ]:
```
data.head()
```

Out[ ]:

	fruit_label	fruit_name	fruit_subtype	mass	width	height	color_score
0	1	apple	granny_smith	192	8.4	7.3	0.55
1	1	apple	granny_smith	180	8.0	6.8	0.59
2	1	apple	granny_smith	176	7.4	7.2	0.60
3	2	mandarin	mandarin	86	6.2	4.7	0.80
4	2	mandarin	mandarin	84	6.0	4.6	0.79

In [ ]:
```
def euclidean_distance(point1, point2):
    return np.sqrt(np.sum((point1 - point2) ** 2))

def predict_knn(X_train, y_train, index, k=3):
    x_test = X_train.iloc[index]
    distances = [euclidean_distance(x_test, X_train.iloc[i]) for i in range(len(X_train))]
    k_indices = np.argsort(distances)[:k]
    k_nearest_labels = [y_train.iloc[i] for i in k_indices]
    most_common = np.bincount(k_nearest_labels).argmax()
    return most_common
```

In [ ]:
```
predictions = [predict_knn(X, y, i, k=3) for i in range(len(X))]
```

In [ ]:
```
accuracy = np.mean(predictions == y.values)
print('Accuracy:', accuracy*100)
```

```
Accuracy: 81.35593220338984
```

In [ ]:
```
for i in range(len(y)):
    result_df = pd.DataFrame({'Actual Price': y, 'Predicted Price': predictions})
print(result_df.head(20))
```

```
    Actual Price  Predicted Price
0              1                1
1              1                1
2              1                1
3              2                2
4              2                2
5              2                2
6              2                2
7              2                2
8              1                1
9              1                1
10             1                1
11             1                1
12             1                3
13             1                1
14             1                1
15             1                1
16             1                1
17             1                1
18             1                1
19             1                1
```