```
import pandas as pd
import numpy as np

data = pd.read_csv(r'C:\Users\Gagandeep\Downloads\women_track_records.csv')
data
```

	COUNTRY	X1	X2	X3	X4	X5	X6	X7
0	Argentina	11.61	22.94	54.50	2.15	4.43	9.79	178.52
1	Australia	11.20	22.35	51.80	1.98	4.13	9.08	152.37
2	Austria	11.43	23.09	50.62	1.99	4.22	9.34	159.37
3	Belgium	11.41	23.04	52.00	2.00	4.14	8.88	157.85
4	Bermuda	11.46	23.05	53.30	2.16	4.58	9.81	169.98
5	Brazil	11.31	23.17	52.80	2.10	4.49	9.77	168.75
6	Burma	12.14	24.47	55.00	2.18	4.45	9.51	191.02
7	Canada	11.00	22.25	50.60	2.00	4.06	8.81	149.45
8	Chille	12.00	21.52	54.90	2.05	4.23	9.37	171.38
9	China	11.95	24.41	54.97	2.08	4.33	9.31	168.48
10	Colombia	11.60	24.00	53.26	2.11	4.35	9.46	165.42

```
data.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 55 entries, 0 to 54
Data columns (total 8 columns):
 #   Column   Non-Null Count  Dtype  
---  ------   --------------  -----  
 0   COUNTRY  55 non-null     object 
 1   X1       55 non-null     float64
 2   X2       55 non-null     float64
 3   X3       55 non-null     float64
 4   X4       55 non-null     float64
 5   X5       55 non-null     float64
 6   X6       55 non-null     float64
 7   X7       55 non-null     float64
dtypes: float64(7), object(1)
memory usage: 3.6+ KB
```

```
print(data.apply(lambda col: col.unique()))
```

```
COUNTRY    [Argentina, Australia, Austria, Belgium, Bermu...
X1         [11.61, 11.2, 11.43, 11.41, 11.46, 11.31, 12.1...
X2         [22.94, 22.35, 23.09, 23.04, 23.05, 23.17, 24....
X3         [54.5, 51.8, 50.62, 52.0, 53.3, 52.8, 55.0, 50...
X4         [2.15, 1.98, 1.99, 2.0, 2.16, 2.1, 2.18, 2.05,...
X5         [4.43, 4.13, 4.22, 4.14, 4.58, 4.49, 4.45, 4.0...
X6         [9.79, 9.08, 9.34, 8.88, 9.81, 9.77, 9.51, 8.8...
X7         [178.52, 152.37, 159.37, 157.85, 169.98, 168.7...
dtype: object
```

```
x = data.drop("COUNTRY",axis =1)
```

```
def detect_outliers(df):
    flag_outlier = False

    for feature in df:
        column = df[feature]
        mean = np.mean(column)
        std = np.std(column)
        z_scores = (column - mean)/ std
        outliers = np.abs(z_scores) > 3

        n_outliers = sum(outliers)

        if n_outliers > 0:
            print ("{} has {} outliers".format(column, n_outliers))
            flag_outlier = True
        if ~flag_outlier:
            print("The dataset has no outlier.")

        return None
detect_outliers(x)
```

```
The dataset has no outlier.
```

50	Tailand	11.75	24.46	55.80	2.20	4.72	10.28	168.45
51	Turkey	11.98	24.44	56.45	2.15	4.37	9.38	201.08
52	USA	10.79	21.83	50.62	1.96	3.95	8.50	142.72
53	USSR	11.06	22.19	49.19	1.89	3.87	8.45	151.22
54	Western Samoa	12.74	25.85	58.73	2.33	5.81	13.04	306.00