

```
In [6]: import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
from sklearn.ensemble import IsolationForest
```

```
In [7]: df = pd.read_csv('cricket scoredataset.csv')
df
```

Out[7]:

	Overs	Score
0	1	15
1	2	10
2	3	17
3	4	10
4	5	12
5	6	20
6	7	100
7	8	8
8	9	8
9	10	11
10	11	100
11	12	14
12	13	3
13	14	100
14	15	11
15	16	13
16	17	100
17	18	16
18	19	26
19	20	30

```
In [11]: model = IsolationForest(n_estimators=100,contamination='auto')
model.fit(df[['Score']])
```

Out[11]:

```
▼ IsolationForest
IsolationForest()
```

```
In [12]: outliers_counter = (df[df['Score'] > 36])
outliers_counter
```

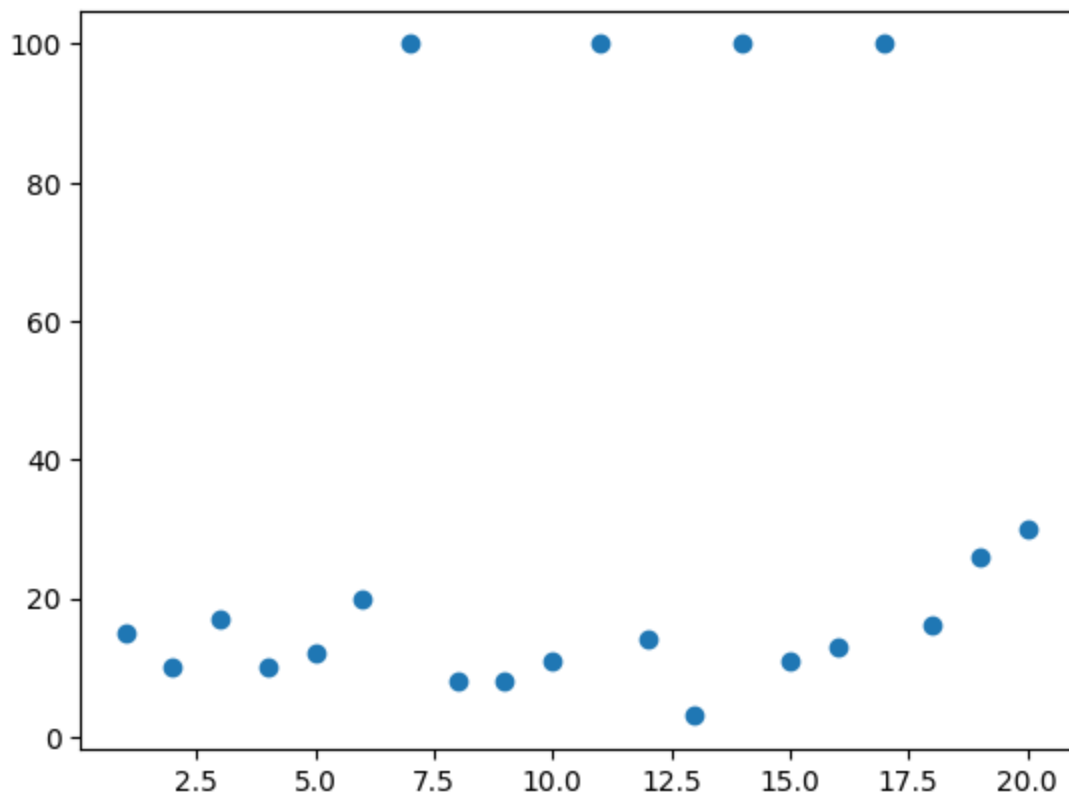
Out[12]:

	Overs	Score
<b>6</b>	7	100
<b>10</b>	11	100
<b>13</b>	14	100
<b>16</b>	17	100

```
In [13]: import matplotlib.pyplot as plt
```

```
In [14]: plt.scatter(df['Overs'],df['Score'])
```

Out[14]: <matplotlib.collections.PathCollection at 0x28d883929e0>



```
In [15]: df['anomaly_scores']=model.decision_function(df[['Score']])  
df['anomaly']=model.predict(df[['Score']])  
df.head(20)
```

Out[15]:

	Overs	Score	anomaly_scores	anomaly
0	1	15	0.065417	1
1	2	10	0.101849	1
2	3	17	0.045561	1
3	4	10	0.101849	1
4	5	12	0.109018	1
5	6	20	-0.027957	-1
6	7	100	-0.148674	-1
7	8	8	0.054852	1
8	9	8	0.054852	1
9	10	11	0.122050	1
10	11	100	-0.148674	-1
11	12	14	0.090302	1
12	13	3	-0.147458	-1
13	14	100	-0.148674	-1
14	15	11	0.122050	1
15	16	13	0.109103	1
16	17	100	-0.148674	-1
17	18	16	0.071438	1
18	19	26	-0.081722	-1
19	20	30	-0.112289	-1

In [ ]: