In [1]:
```
import numpy as np
```

In [2]:
```
array = np.array([10,20,30,40,50,60,70])
```

In [3]:
```
array
```

Out[3]:
```
array([10, 20, 30, 40, 50, 60, 70])
```

In [4]:
```
array.mean()
```

Out[4]:
```
40.0
```

In [5]:
```
np.percentile(array, 25)
```

Out[5]:
```
25.0
```

In [6]:
```
np.percentile(array, 50)
```

Out[6]:
```
40.0
```

In [7]:
```
np.percentile(array, 75)
```

Out[7]:
```
55.0
```

In [8]:
```
np.percentile(array, 100)
```

Out[8]:
```
70.0
```

In [9]:
```
###  Outlier Detection

def outDetection(array):
  sorted(array)
  Q1,Q3 = np.percentile(array, [25,75])
  IQR = Q3-Q1
  lr = Q1 - (1.5 * IQR)
  ur = Q3 + (1.5 * IQR)
  return lr,ur
```

In [10]:
```
new_array = np.array([[1000],[2000],[6000],[4999],[2399], [50000],[5000000]])
```

In [11]:
```
new_array
```

Out[11]:
```
array([[   1000],
       [   2000],
       [   6000],
       [   4999],
       [   2399],
       [  50000],
       [5000000]])
```

In [12]:
```
lr,ur = outDetection(new_array)
```

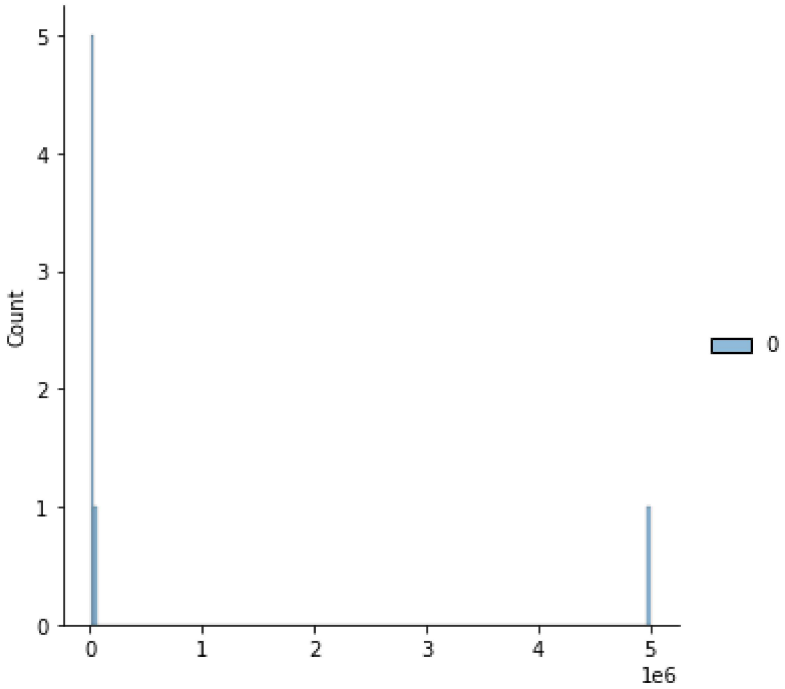
In [13]:
```
lr,ur
```

Out[13]:
```
(-36501.25, 66700.75)
```

In [22]:
```
# Visualizing data

import seaborn as sns
%matplotlib inline
sns.displot(new_array)
```

Out[22]:
```
<seaborn.axisgrid.FacetGrid at 0x2e7349d8a90>
```

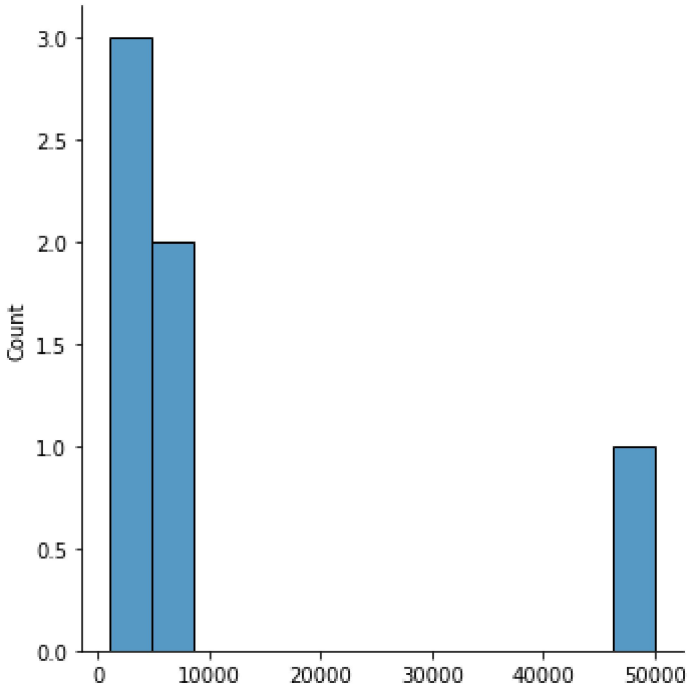



In [24]:
```
updated_array = new_array[(new_array>lr) & (new_array<ur)]
updated_array
```

Out[24]:
```
array([ 1000,  2000,  6000,  4999,  2399, 50000])
```

In [28]:
```
sns.displot(updated_array)
```

Out[28]:
```
<seaborn.axisgrid.FacetGrid at 0x2e735d61040>
```




In [30]:
```
lr1,ur1 = outDetection(updated_array)
```

In [31]:
```
lr1,ur1
```

Out[31]:
```
(-3375.25, 11224.75)
```

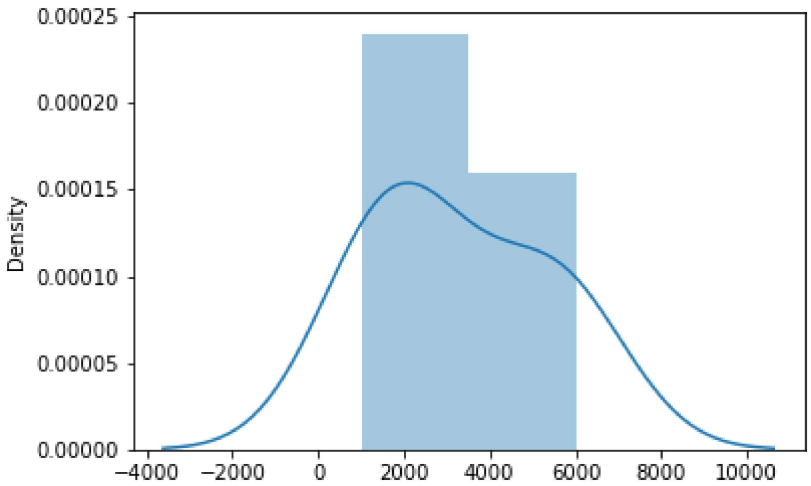
In [34]:
```
final_array = updated_array[(updated_array>lr1) & (updated_array<ur1)]
final_array
```

Out[34]:
```
array([1000, 2000, 6000, 4999, 2399])
```

In [35]:
```
sns.distplot(final_array)
```

```
C:\Users\Swati\anaconda3\lib\site-packages\seaborn\distributions.py:2619: FutureWarni
ng: `distplot` is a deprecated function and will be removed in a future version. Plea
se adapt your code to use either `displot` (a figure-level function with similar flex
ibility) or `histplot` (an axes-level function for histograms).
  warnings.warn(msg, FutureWarning)
```

Out[35]:
```
<AxesSubplot:ylabel='Density'>
```



In [ ]: