In [28]:
```
#Experiment no.2
```

In [ ]:
```
#Aim: To perform operations on Central tendency of measures
```

In [2]:
```
#Name:Janvi R.Kale
#Roll no.:29
#sec:A
#sub:ET 1
#date:4-08-2025
```

In [2]:
```
age=[20,21,22,20,21,21,20,20,22,21,22,21,22,20,20,20,21,22,20]
```

In [3]:
```
print(age)
```

```
[20, 21, 22, 20, 21, 21, 20, 20, 22, 21, 22, 21, 22, 20, 20, 20, 21, 22, 2
0]
```

In [4]:
```
age
```

Out[4]:
```
[20, 21, 22, 20, 21, 21, 20, 20, 22, 21, 22, 21, 22, 20, 20, 20, 21, 22, 2
0]
```

In [5]:
```
import statistics as stats
```

In [6]:
```
a=stats.mean(age)
```

In [7]:
```
a
```

Out[7]:
```
20.842105263157894
```

In [8]:
```
b=stats.median(age)
```

In [9]:
```
b
```

Out[9]:
```
21
```

In [10]:
```
c=stats.mode(age)
```

In [11]:
```
c
```

Out[11]:
```
20
```

In [12]:
```
import numpy as np
x=np.array([2,5,4,6,2,5,2,5,4,6,2,5,2,5,4,6,2,5,4,7,8,9,1])
```

In [13]:
```
x
```

Out[13]:
```
array([2, 5, 4, 6, 2, 5, 2, 5, 4, 6, 2, 5, 2, 5, 4, 6, 2, 5, 4, 7, 8, 9,
       1])
```

In [14]:
```
print(np.mean(x))
```

```
4.391304347826087
```

In [15]:
```
print(np.median(x))
```

```
5.0
```

In [16]:
```
from scipy import stats
```

In [17]:
```
print(stats.mode(x))
```

```
ModeResult(mode=array([2]), count=array([6]))
```

In [18]:
```
print(np.std(x)) #measures of dispersion
```

```
2.0586853220437766
```

In [19]:
```
print(np.var(x))
```

```
4.238185255198488
```

🔷 Conclusion: In this practical, we studied central tendency to understand the central value of datasets. Calculating mean, median, and mode helped summarize data effectively and provided a foundation for further statistical analysis.

In [ ]:
```

```