In [1]:
```
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
sns.set()
```

In [49]:
```
import statistics as st
```

In [28]:
```
df = pd.read_csv('insurance.csv')
df
```

Out[28]:

	age	sex	bmi	children	smoker	region	charges
0	19	female	27.900	0	yes	southwest	16884.92400
1	18	male	33.770	1	no	southeast	1725.55230
2	28	male	33.000	3	no	southeast	4449.46200
3	33	male	22.705	0	no	northwest	21984.47061
4	32	male	28.880	0	no	northwest	3866.85520
...	...	...	...	...	...	...	...
1333	50	male	30.970	3	no	northwest	10600.54830
1334	18	female	31.920	0	no	northeast	2205.98080
1335	18	female	36.850	0	no	southeast	1629.83350
1336	21	female	25.800	0	no	southwest	2007.94500
1337	61	female	29.070	0	yes	northwest	29141.36030

1338 rows × 7 columns

In [24]:
```
df.describe()
```

Out[24]:

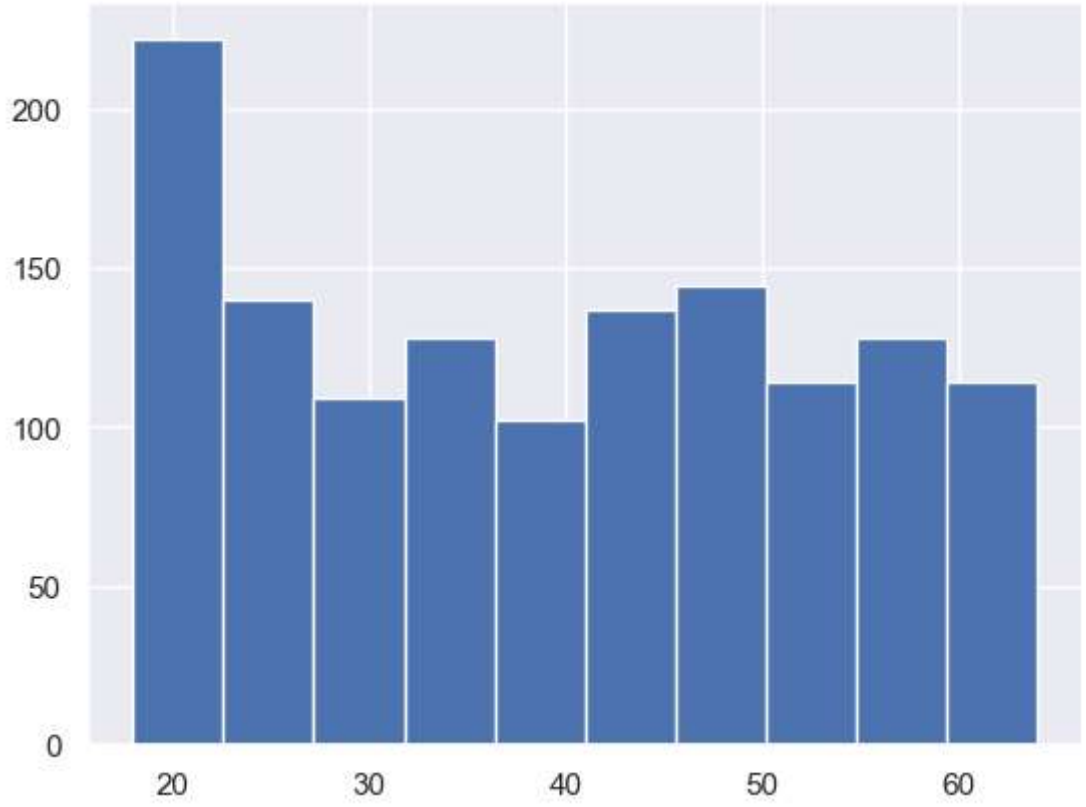
	age	bmi	children	charges
count	1338.000000	1338.000000	1338.000000	1338.000000
mean	39.207025	30.663397	1.094918	13270.422265
std	14.049960	6.098187	1.205493	12110.011237
min	18.000000	15.960000	0.000000	1121.873900
25%	27.000000	26.296250	0.000000	4740.287150
50%	39.000000	30.400000	1.000000	9382.033000
75%	51.000000	34.693750	2.000000	16639.912515
max	64.000000	53.130000	5.000000	63770.428010

In [51]:
```
st.mode(df['age'])
```

Out[51]:
```
18
```

In [27]:
```
plt.hist(df['age'])
```

Out[27]:
```
(array([222., 140., 109., 128., 102., 137., 144., 114., 128., 114.]),
 array([18. , 22.6, 27.2, 31.8, 36.4, 41. , 45.6, 50.2, 54.8, 59.4, 64. ]),
 <BarContainer object of 10 artists>)
```



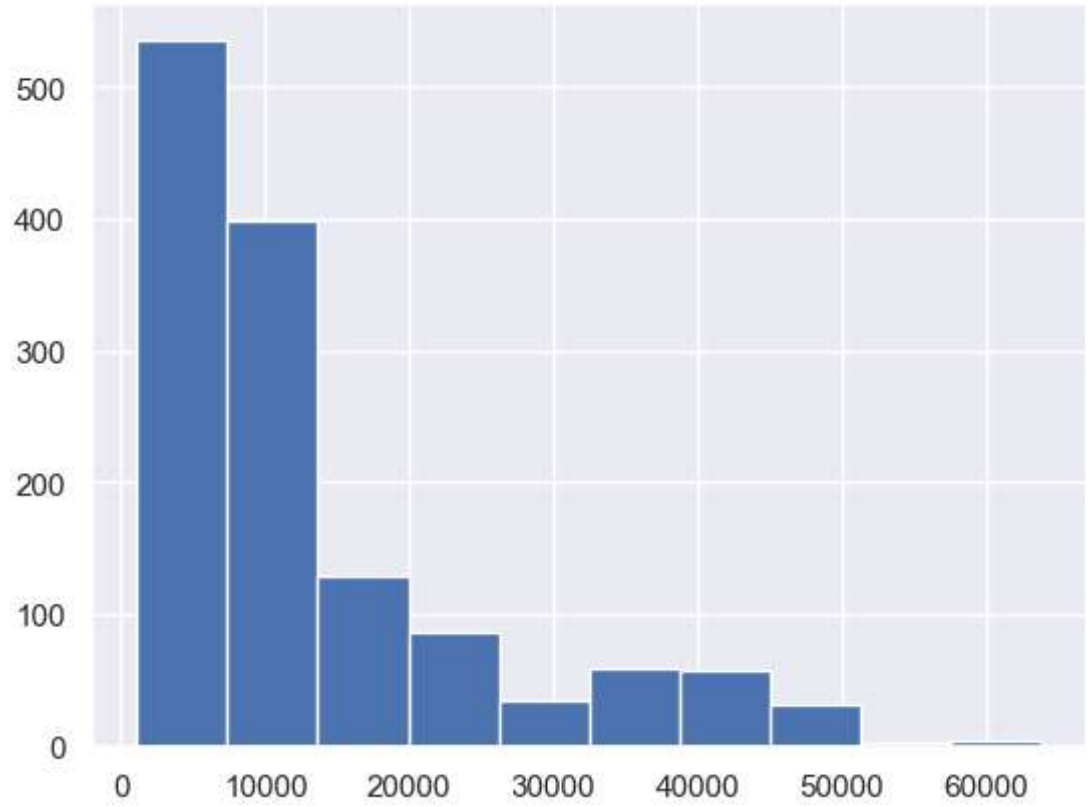
In [ ]:

In [31]:
```
df['charges']
```

Out[31]:
```
0       16884.92400
1        1725.55230
2        4449.46200
3       21984.47061
4        3866.85520
            ...
1333    10600.54830
1334     2205.98080
1335     1629.83350
1336     2007.94500
1337    29141.36030
Name: charges, Length: 1338, dtype: float64
```

In [29]:
```
plt.hist(df['charges'])
```

Out[29]:
```
(array([536., 398., 129.,  86.,  35.,  59.,  57.,  32.,   2.,   4.]),
 array([ 1121.8739  ,  7386.729311, 13651.584722, 19916.440133,
        26181.295544, 32446.150955, 38711.006366, 44975.861777,
        51240.717188, 57505.572599, 63770.42801 ]),
 <BarContainer object of 10 artists>)
```



In [48]:
```
df['charges'].mode()
```

Out[48]:
```
0    1639.5631
Name: charges, dtype: float64
```

In [50]:
```
st.mode(df['charges'])
```

Out[50]:
```
1639.5631
```

In [ ]:

In [ ]:

In [ ]:

In [ ]:

In [ ]: