

In [1]:

```
import numpy as np
import pandas as pd
```

In [2]:

```
df = pd.read_csv("flights.csv", sep=",")
```

In [3]:

```
df.head()
```

Out[3]:

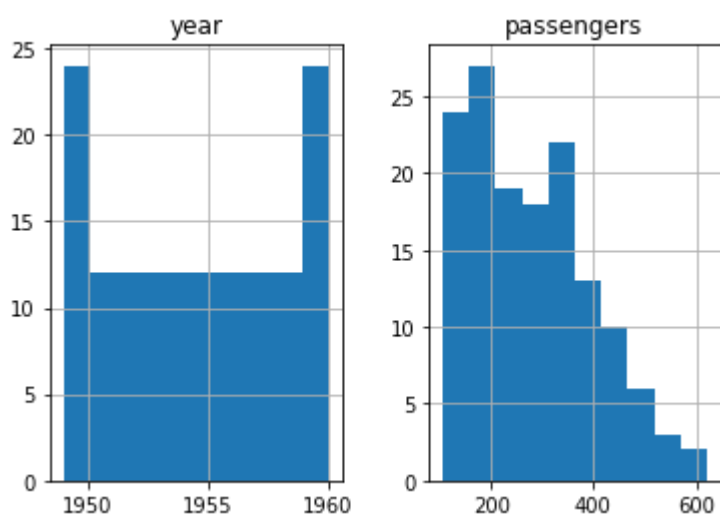
	year	month	passengers
0	1949	January	112
1	1949	February	118
2	1949	March	132
3	1949	April	129
4	1949	May	121

In [4]:

```
df.hist()
```

Out[4]:

```
array([[<AxesSubplot:title={'center':'year'}>,
        <AxesSubplot:title={'center':'passengers'}>]], dtype=object)
```

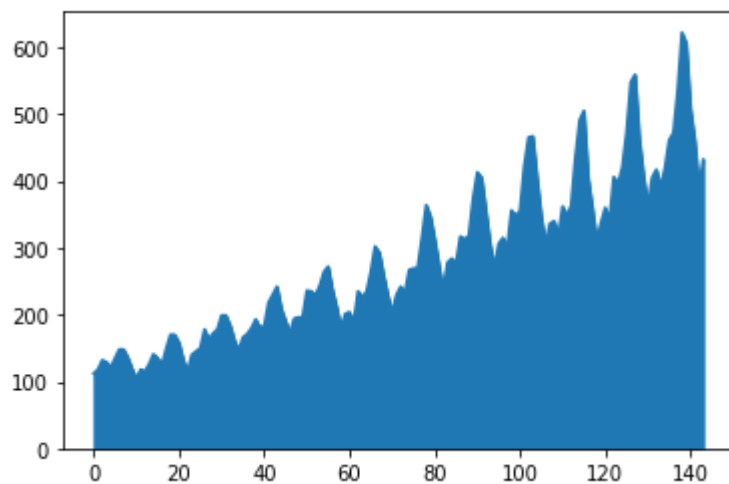


In [5]:

```
df['passengers'].plot.area()
```

Out[5]:

<AxesSubplot:>

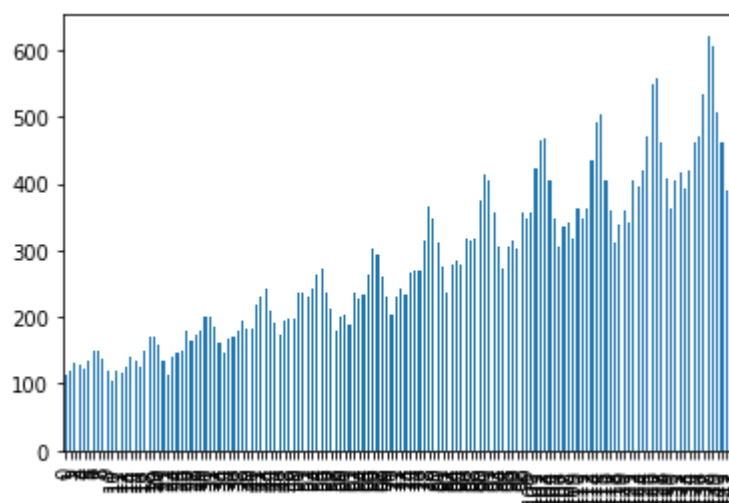


In [6]:

```
df['passengers'].plot.bar()
```

Out[6]:

<AxesSubplot:>

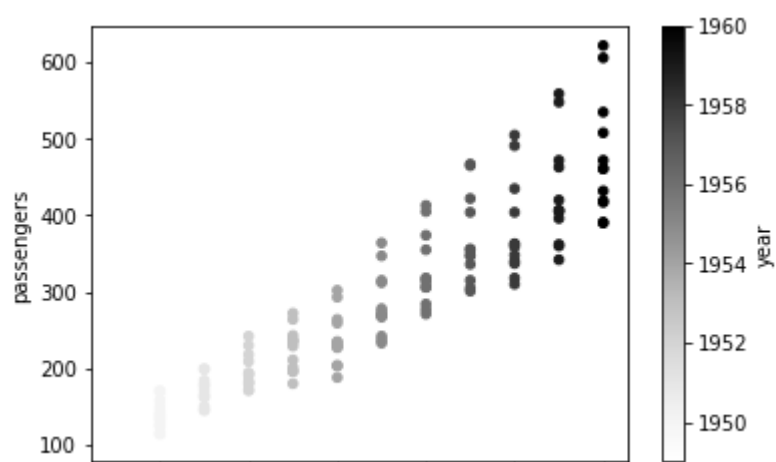


In [7]:

```
df.plot.scatter(x='year',y='passengers',c='year')
```

Out[7]:

<AxesSubplot:xlabel='year', ylabel='passengers'>

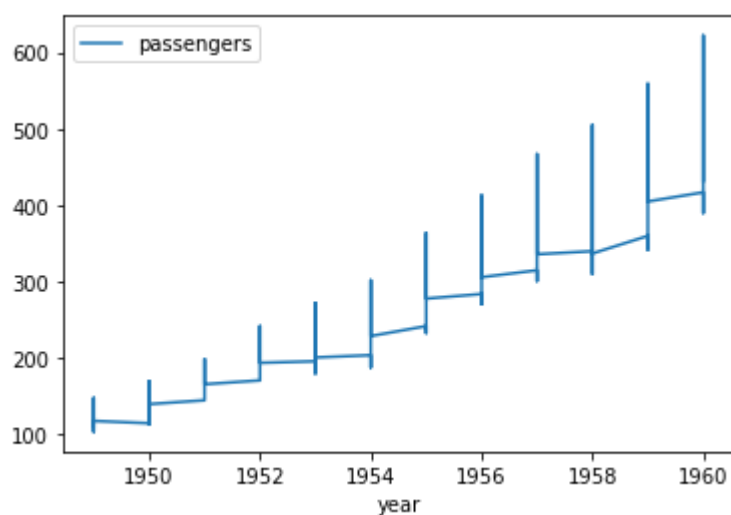


In [8]:

```
df.plot.line(x='year',y='passengers')
```

Out[8]:

<AxesSubplot:xlabel='year'>

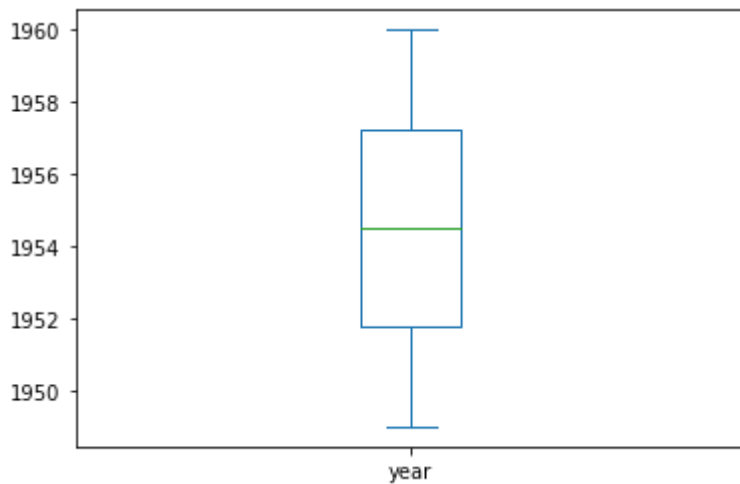


In [9]:

```
df['year'].plot.box()
```

Out[9]:

<AxesSubplot:>



In [10]:

```
!pip install plotly==5.1.0
!pip install "jupyterlab>=3" "ipywidgets>=7.6"
```

Collecting plotly==5.1.0

Downloading plotly-5.1.0-py2.py3-none-any.whl (20.6 MB)

Collecting tenacity>=6.2.0

Downloading tenacity-8.0.1-py3-none-any.whl (24 kB)

Requirement already satisfied: six in d:\curso-data-science\venv\lib\site-packages (from plotly==5.1.0) (1.16.0)

Installing collected packages: tenacity, plotly

Successfully installed plotly-5.1.0 tenacity-8.0.1

WARNING: You are using pip version 21.2.3; however, version 21.2.4 is available.

You should consider upgrading via the 'D:\curso-data-science\venv\Scripts\python.exe -m pip install --upgrade pip' command.

In [11]:

```
import numpy as np
import pandas as pd
import plotly.offline as py
import plotly.graph_objs as go
py.init_notebook_mode(connected=True)
```

In [12]:

```
df = pd.read_csv("tips.csv")
```

In [13]:

```
df.head()
```

Out[13]:

	total_bill	tip	sex	smoker	day	time	size
0	16.99	1.01	Female	No	Sun	Dinner	2
1	10.34	1.66	Male	No	Sun	Dinner	3
2	21.01	3.50	Male	No	Sun	Dinner	3
3	23.68	3.31	Male	No	Sun	Dinner	2
4	24.59	3.61	Female	No	Sun	Dinner	4

In [14]:

```
trace = go.Scatter(x=df['total_bill'],y=df['tip'],mode='markers')
data = [trace]
py.iplot(data)
```

In [16]:

```
group = df.groupby('sex')
trace = go.Bar(x = df['sex'].unique(), y = group['total_bill'].count())
data = [trace]
py.iplot(data)
```

In [17]:

```
group = df.groupby('time')
trace = go.Bar(x = df['time'].unique(), y = group['total_bill'].count())
data = [trace]
py.iplot(data)
```

In [18]:

```
group = df.groupby('sex')
trace = go.Pie(labels = df['sex'].unique(), values = group['total_bill'].count())
data = [trace]
py.iplot(data)
```

In [ ]: