```
import altair as alt
import pandas as pd
import numpy as np
from vega_datasets import data
```

## Barras .mark\_bar()

```
In [4]:
         df = pd.DataFrame({
             'a': ['A', 'B', 'C', 'D', 'E', 'F', 'G', 'H', 'I'],
             'b': [28, 55, 43, 91, 81, 53, 19, 87, 52]
         })
In [5]:
         alt.Chart(df).mark_bar().encode(
            x='a',
            y='b'
         )
          100
Out[5]:
           90
           80
           70
           60
           50
           40
           30
           20-
           10-
```

## Heatmap .mark\_rect()

a

```
In [7]:
          x, y = np.meshgrid(range(-5, 5), range(-5, 5))
           z = x ** 2 + y ** 2
           df = pd.DataFrame({'x': x.ravel(),
                                 'y': y.ravel(),
                                 'z': z.ravel()})
           alt.Chart(df).mark_rect().encode(
In [14]:
               x='x:0',
               y='y:0',
               color='z:Q'
           )
Out[14]:
            -5
            -4-
            -3-
```