# **Adding a second axis**

<https://openpyxl.readthedocs.io/en/stable/charts/secondary.html>

Adding a second axis actually involves creating a second chart that shares a common x-axis with the first chart but has a separate y-axis.

**from** **openpyxl** **import** Workbook

**from** **openpyxl.chart** **import** (

LineChart,

BarChart,

Reference,

Series,

)

wb = Workbook()

ws = wb.active

rows = [

['Aliens', 2, 3, 4, 5, 6, 7],

['Humans', 10, 40, 50, 20, 10, 50],

]

**for** row **in** rows:

ws.append(row)

c1 = BarChart()

v1 = Reference(ws, min\_col=1, min\_row=1, max\_col=7)

c1.add\_data(v1, titles\_from\_data=**True**, from\_rows=**True**)

c1.x\_axis.title = 'Days'

c1.y\_axis.title = 'Aliens'

c1.y\_axis.majorGridlines = **None**

c1.title = 'Survey results'

*# Create a second chart*

c2 = LineChart()

v2 = Reference(ws, min\_col=1, min\_row=2, max\_col=7)

c2.add\_data(v2, titles\_from\_data=**True**, from\_rows=**True**)

c2.y\_axis.axId = 200

c2.y\_axis.title = "Humans"

*# Display y-axis of the second chart on the right by setting it to cross the x-axis at its maximum*

c1.y\_axis.crosses = "max"

c1 += c2

ws.add\_chart(c1, "D4")

wb.save("secondary.xlsx")

This produces a combined line and bar chart looking something like this:

