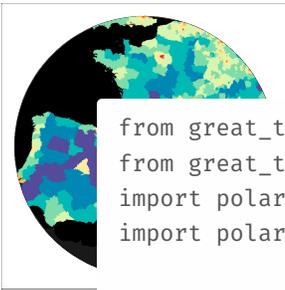# Great Tables - Oceania

```python
from great_tables import GT
from great_tables.data import countrypops
import polars as pl
import polars.selectors as cs

# Get vectors of 2-letter country codes for each region of Oceania
oceania = {
    "Australasia": ["AU", "NZ"],
    "Melanesia": ["NC", "PG", "SB", "VU"],
    "Micronesia": ["FM", "GU", "KI", "MH", "MP", "NR", "PW"],
    "Polynesia": ["PF", "WS", "TO", "TV"],
}

# Create a dictionary mapping country to region (e.g. AU → Australasia)
country_to_region = {
    country: region for region, countries in oceania.items() for country in
countries
}

wide_pops = (
    pl.from_pandas(countrypops)
    .filter(
        pl.col("country_code_2").is_in(list(country_to_region))
        & pl.col("year").is_in([2000, 2010, 2020])
    )
  .with_columns(pl.col("country_code_2").replace(country_to_region).alias("region"))
    .pivot(index=["country_name", "region"], columns="year", values="population")
    .sort("2020", descending=True)
)

(
    GT(wide_pops, rowname_col="country_name", groupname_col="region")
     .tab_header(title="Populations of Oceania's Countries in 2000, 2010, and
2020")
    .tab_spanner(label="Total Population", columns=cs.all())
    .fmt_integer()
)


/var/folders/_5/l_f9_2dj4n5dpm0ztth7n97c0000gp/
T/ipykernel_41564/3569039387.py:26: DeprecationWarning: The argument `columns`
for `DataFrame.pivot` is deprecated. It has been renamed to `on`.
  .pivot(index=["country_name", "region"], columns="year", values="population")
```
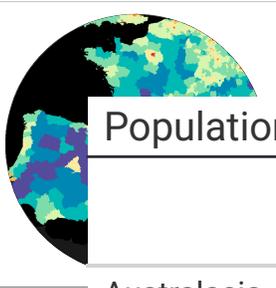
Populations of Oceania's Countries in 2000, 2010, and 2020

	Total Population		
	2000	2010	2020
Australasia			
Australia	19,028,802	22,031,750	25,655,289
New Zealand	3,857,700	4,350,700	5,090,200
Melanesia			
Papua New Guinea	5,508,297	7,583,269	9,749,640
Solomon Islands	429,978	540,394	691,191
Vanuatu	192,074	245,453	311,685
New Caledonia	213,230	249,750	272,460
Polynesia			
French Polynesia	250,927	283,788	301,920
Samoa	184,008	194,672	214,929
Tonga	102,603	107,383	105,254
Tuvalu	9,638	10,550	11,069
Micronesia			
Guam	160,188	164,905	169,231
Kiribati	88,826	107,995	126,463
Micronesia (Federated States)	111,709	107,588	112,106
Northern Mariana Islands	80,338	54,087	49,587
Marshall Islands	54,224	53,416	43,413
Palau	19,726	18,540	17,972
Nauru	10,377	10,241	12,315