In [1]:
```
import pandas as pd
import plotly as py
import plotly.express as px

py.offline.init_notebook_mode()

data = {'Country':['China','India','Germany','France'],
        '2021':[2000,1000,500,200],
        '2022':[3000,500,5000,10]
        }

df = pd.DataFrame(data)


df
```

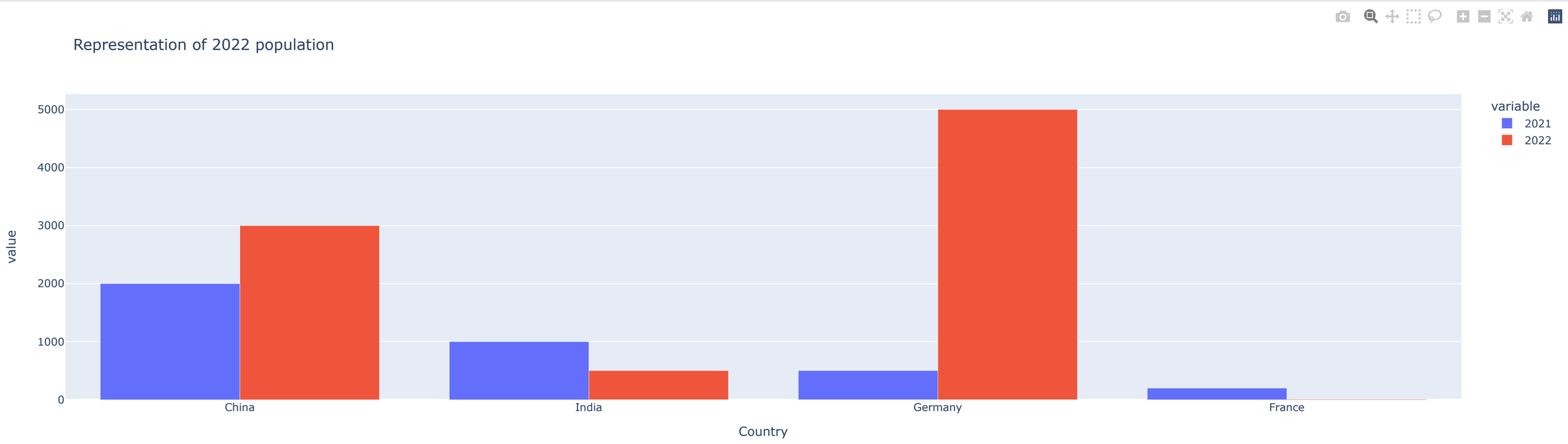
Out[1]:

	Country	2021	2022
0	China	2000	3000
1	India	1000	500
2	Germany	500	5000
3	France	200	10

In [2]:
```
numb = (df['Country']=='India').index
df.loc[1]
```

Out[2]:
```
Country    India
2021        1000
2022         500
Name: 1, dtype: object
```

In [3]:
```
fig = px.bar(df,x='Country',y=['2021','2022'],title = 'Representation of 2022 population',barmode = 'group')
fig.show()
```



In [4]:
```
from dash import Dash,html,dcc,Input,Output
from jupyter_dash import JupyterDash

app = JupyterDash()
```

In [5]:
```
app.layout = html.Div([

html.Div([
html.H1(children = 'Population vs Country for the year 2022',style = {'textAlign':'Center','color':'black','background-color':'coral','font-size':'20px','font-family':'Times New Roman'})
    ]),



html.Div([
html.Label('Countries'),
dcc.RadioItems(['China','India','Germany','France'],'India',id = 'Country1',labelStyle = {'display':'block'}, style = {'font-family':'Arial'}),



html.Label('Year',style={'margin-left':'100px'}),
dcc.Checklist(['2021','2022'],['2021'],id = 'Year1', labelStyle = {'display':'block'},style = {'font-family':'Arial'}),

],style = {'display':'flex','font-family':'Arial','background-color':'Burlywood'}
),

html.Div([dcc.Graph(id = 'Bar_graph',figure = fig,style = {'height':250,'width':450,'display':'inline-block'})],style={'margin-left':'200px'})


],style = {'background-color':'Black'}


)
```

In [6]:
```
@app.callback(Output(component_id  = 'Bar_graph',component_property = 'figure'),
              Input(component_id = 'Country1',component_property = 'value'),
              Input(component_id = 'Year1',component_property = 'value'))

def get_graph(count,y1):
    df1 = df[df['Country']==count]
    fig1 = px.bar(df1,x='Country',y=y1,title = 'Representation of 2022 population',barmode = 'group')
    fig1.update_layout(autosize = False,width = 500,height = 300,xaxis_title = 'Country',yaxis_title = 'Population',plot_bgcolor='LightBlue',legend_title = 'Years')
    fig1.update_layout(font = dict(family = 'Times New Roman',size = 15, color = 'red'))
    fig1.update_traces(width = .05)

    fig1.update_layout(legend = dict(font = dict(family = 'Arial',size =10,color = 'black'),bgcolor = 'LightSteelBlue',bordercolor ='black'))

    return fig1
```

In [ ]:

In [7]:
```
if __name__ =='__main__':
    app.run_server(mode='inline',port = 6789)
```

In [ ]:

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