

```
In [ ]: import matplotlib.pyplot as plt
```

```
In [ ]: years = [2010, 2011, 2012, 2013, 2014, 2015]
yield_apples = [0.895, 0.91, 0.919, 0.926, 0.929, 0.931]
```

```
In [ ]: plt.plot(years,yield_apples)
```

```
In [ ]: plt.plot(years,yield_apples,marker='*')
```

```
In [ ]: plt.plot(years,yield_apples,marker='+')
```

```
In [ ]: plt.plot(years,yield_apples,marker='*',ms=10)
```

```
In [ ]: years = [2010, 2011, 2012, 2013, 2014, 2015]
yield_apples = [0.895, 0.91, 0.919, 0.926, 0.929, 0.931]
plt.plot(years,yield_apples,marker='*',ms=10)
plt.xlabel('years')
plt.ylabel('Crop Yield')
plt.title("Crop Yield Vs Year")
```

```
In [ ]: years = [2010, 2011, 2012, 2013, 2014, 2015]
yield_apples = [0.895, 0.91, 0.919, 0.926, 0.929, 0.931]
plt.plot(years,yield_apples,marker='*',ms=10,c='g')
plt.xlabel('years')
plt.ylabel('Crop Yield')
plt.title("Crop Yield Vs Year")
```

```
In [ ]: import seaborn as sns
```

```
In [ ]: #sns.set_style("whitegrid")
sns.set_style("darkgrid")
```

```
In [ ]: years = [2010, 2011, 2012, 2013, 2014, 2015]
yield_apples = [0.895, 0.91, 0.919, 0.926, 0.929, 0.931]
plt.plot(years,yield_apples,marker='*',ms=10,c='g')

plt.xlabel('years')
plt.ylabel('Crop Yield')
plt.title("Crop Yield Vs Year")
```

```
In [ ]: years = [2010, 2011, 2012, 2013, 2014, 2015]
yield_apples = [0.895, 0.91, 0.919, 0.926, 0.929, 0.931]
plt.scatter(years,yield_apples,c='r')
plt.xlabel('years')
plt.ylabel('Crop Yield')
plt.title("Crop Yield Vs Year")
```

```
In [ ]: import matplotlib.pyplot as plt
import seaborn as sns
years = [2010, 2011, 2012, 2013, 2014, 2015]
yield_apples = [0.895, 0.91, 0.919, 0.926, 0.929, 0.931]
sns.lineplot(years ,yield_apples)

plt.xlabel('years')
plt.ylabel('Crop Yield')
plt.title("Crop Yield Vs Year")
```

```
In [ ]: import matplotlib.pyplot as plt
import seaborn as sns
years = [2010, 2011, 2012, 2013, 2014, 2015]
yield_apples = [0.895, 0.91, 0.919, 0.926, 0.929, 0.931]
sns.scatterplot(years ,yield_apples)

plt.xlabel('years')
plt.ylabel('Crop Yield')
plt.title("Crop Yield Vs Year")
```

```
In [ ]: import matplotlib.pyplot as plt
import seaborn as sns
years = [2010, 2011, 2012, 2013, 2014, 2015]
yield_apples = [0.895, 0.91, 0.919, 0.926, 0.929, 0.931]
sns.regplot(years ,yield_apples)

plt.xlabel('years')
plt.ylabel('Crop Yield')
plt.title("Crop Yield Vs Year")
```

```
In [ ]: import matplotlib.pyplot as plt
years = [2010, 2011, 2012, 2013, 2014, 2015]
apples = [0.895, 0.51, 0.39, 0.926, 0.39, 0.931]
plt.bar(years,apples)
plt.xlabel('years')
plt.ylabel('Apple Yield')
plt.title("Apple Yield Vs Year")
```

```
In [ ]: import matplotlib.pyplot as plt
import seaborn as sns

years = [2010, 2011, 2012, 2013, 2014, 2015]
apples = [0.895, 0.51, 0.39, 0.926, 0.39, 0.931]
sns.barplot(years,apples)
plt.xlabel('years')
plt.ylabel('Apple Yield')
plt.title("Apple Yield Vs Year")
```

```
In [ ]: import matplotlib.pyplot as plt
import seaborn as sns

years = [2010, 2011, 2012, 2013, 2014, 2015]

apples = [0.895, 0.51, 0.39, 0.926, 0.39, 0.931]

pottato = [0.90, 0.81, 0.59, 0.726, 0.929, 0.931]

plt.bar(years,pottato,bottom=pottato)

plt.bar(years,apples)

plt.xlabel('years')
plt.ylabel('Apple Yield')
plt.title("Apple and Pottato Yield Vs Year")
```

```
In [ ]: import matplotlib.pyplot as plt
import seaborn as sns

years = [2010, 2011, 2012, 2013, 2014, 2015]

apples = [0.895, 0.51, 0.39, 0.926, 0.39, 0.931]

pottato = [0.90, 0.81, 0.59, 0.726, 0.929, 0.931]

sns.barplot(years,pottato,bottom=pottato)

sns.barplot(years,apples)

plt.xlabel('years')
plt.ylabel('Apple Yield')
plt.title("Apple and Pottato Yield Vs Year")
```

## Dataset

```
In [ ]: df=sns.load_dataset("tips")
df.head()
```

```
In [ ]: df.info()
```

```
In [ ]: df["smoker"].value_counts()
```

```
In [ ]: plt.hist(df["smoker"])
```

```
In [ ]: sns.histplot(df["smoker"])
```

```
In [ ]: sns.lineplot(df["total_bill"], df["tip"])
```

```
In [ ]: sns.regplot(df["total_bill"], df["tip"])
```

```
In [ ]: sns.barplot(x=df["day"], y=df["total_bill"]);
```

```
In [ ]: sns.barplot(x=df["day"], y=df["total_bill"], hue=df['sex']);
```

```
In [ ]: sns.regplot(df["total_bill"], df["size"])
```

```
In [ ]: sns.relplot(df["total_bill"], df["size"], hue=df['sex'])
```

```
In [ ]: sns.relplot(df["total_bill"], df["size"], hue=df['smoker'])
```

```
In [ ]: sns.lmplot(data=df, x="total_bill", y="tip", col="time", hue="smoker")
```

## Plots for categorical data

```
In [ ]: sns.catplot(data=df, x="day", y="total_bill")
```

```
In [ ]: df
```

```
In [ ]: sns.catplot(data=df, x="sex", y="total_bill")
```

```
In [ ]: sns.catplot(data=df, x="sex", y="total_bill", hue='smoker')
```

```
In [ ]: sns.catplot(data=df, x="sex", y="total_bill", hue='day')
```

```
In [ ]: sns.catplot(data=df, x="day", y="total_bill")
```

```
In [ ]: sns.catplot(data=df, kind="swarm", x="day", y="total_bill")
```

```
In [ ]: sns.catplot(data=df, kind="strip", x="day", y="total_bill")
```

```
In [ ]: sns.catplot(data=df, x="day", y="total_bill", hue='sex')
```

```
In [ ]: sns.catplot(data=df, x="day", y="total_bill", hue='sex', size=)
```

```
In [ ]: sns.catplot(data=df, kind="swarm", x="day", y="total_bill", hue="smoker")
```

```
In [ ]:
```

```
In [ ]: sns.catplot(data=df, kind="strip", x="day", y="total_bill", hue="smoker")
```

```
In [ ]: sns.catplot(data=df, x="total_bill", y="day", hue="time", kind="swarm")
```

```
In [ ]: sns.barplot(x=df["size"], y=df["total_bill"], hue=df['sex']);
```

```
In [ ]: df
```

```
In [ ]: sns.histplot(df["day"])
```

```
In [ ]: sns.histplot(df["time"])
```

```
In [ ]: sns.histplot(df["size"])
```

```
In [ ]: sns.barplot(x=df["day"], y=df["total_bill"]);
```

```
In [ ]: sns.boxplot(df["total_bill"])
```

```
In [ ]:
```