

In [3]:

```
from numpy import random as r
import matplotlib.pyplot as plt
import seaborn as sns

uniformMatrix=r.uniform(0.2,0.4,size=(10))

print("\n\n",uniformMatrix)
```

```
[0.36833883 0.25906612 0.20706848 0.34778114 0.2940441 0.20875665
 0.20667669 0.34871464 0.38103863 0.207978 ]
```

In [4]:

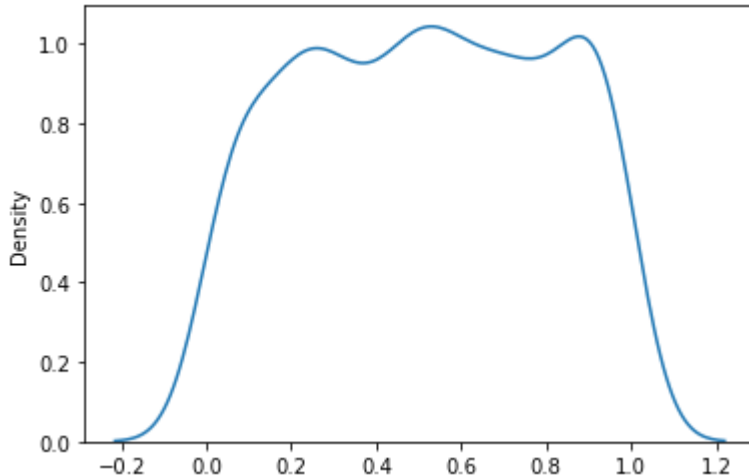
```
sns.distplot(r.uniform(size=(1000)),hist=False)
```

C:\Users\MSCIT\anaconda3\lib\site-packages\seaborn\distributions.py:2619: FutureWarning: `distplot` is a deprecated function and will be removed in a future version. Please adapt your code to use either `displot` (a figure-level function with similar flexibility) or `kdeplot` (an axes-level function for kernel density plots).

warnings.warn(msg, FutureWarning)

Out[4]:

<AxesSubplot:ylabel='Density'>



In [5]:

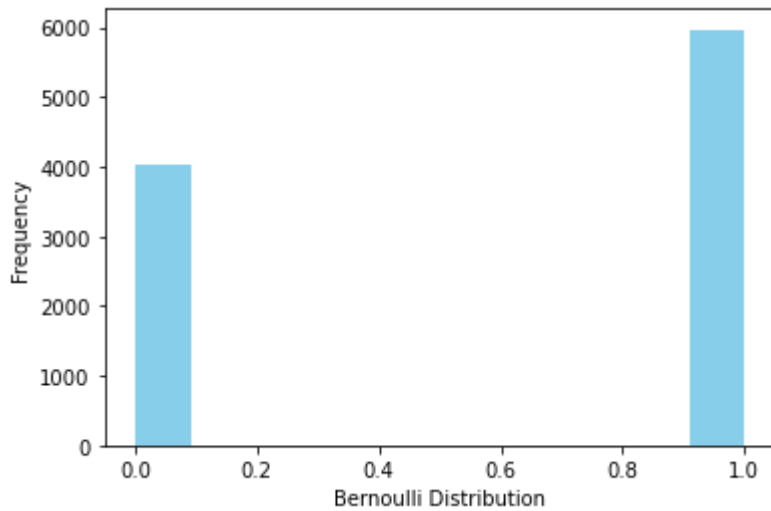
```
from scipy.stats import bernoulli
data_bern=bernoulli.rvs(size=10000,p=0.6)
```

In [8]:

```
ax=sns.distplot(data_bern,  
                kde=False,  
                color='skyblue',  
                hist_kws={"linewidth":20,'alpha':1})  
ax.set(xlabel="Bernoulli Distribution",ylabel='Frequency')
```

Out[8]:

```
[Text(0.5, 0, 'Bernoulli Distribution'), Text(0, 0.5, 'Frequency')]
```



In [9]:

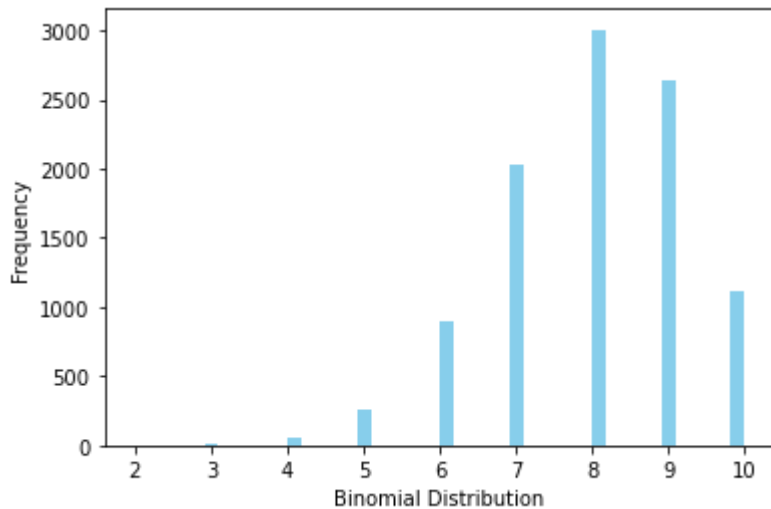
```
from scipy.stats import binom  
data_binom=binom.rvs(n=10,p=0.8,size=10000)
```

In [11]:

```
ax=sns.distplot(data_binom,  
                kde=False,  
                color='skyblue',  
                hist_kws={"linewidth":15,'alpha':1})  
ax.set(xlabel='Binomial Distribution',ylabel='Frequency')
```

Out[11]:

```
[Text(0.5, 0, 'Binomial Distribution'), Text(0, 0.5, 'Frequency')]
```



In [13]:

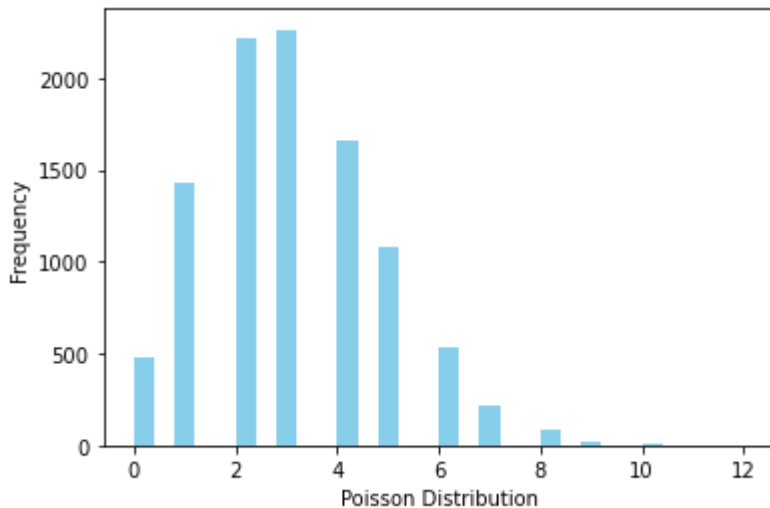
```
from scipy.stats import poisson  
data_poisson=poisson.rvs(mu=3,size=10000)
```

In [15]:

```
ax=sns.distplot(data_poisson,
                bins=30,
                kde=False,
                color='skyblue',
                hist_kws={"linewidth":15,'alpha':1})
ax.set(xlabel='Poisson Distribution',ylabel='Frequency')
```

Out[15]:

```
[Text(0.5, 0, 'Poisson Distribution'), Text(0, 0.5, 'Frequency')]
```



In [16]:

```
#A warehouse typically recieves 8 delivers 4 and 5 pm on Friday
#What is the probability that only 4 delivers will arrive between 4 and 5 pm on Friday?
```

In [19]:

```
from scipy.stats import poisson
poisson.pmf(4,8)
```

Out[19]:

```
0.057252288495362
```

In [20]:

```
from scipy.stats import poisson
poisson.cdf(3,8)
```

Out[20]:

```
0.04238011199168396
```

In [22]:

```
from scipy.stats import poisson
poisson.cdf(2,8)
```

Out[22]:

```
0.013753967744002971
```

In [23]:

```
from scipy.stats import poisson  
poisson.cdf(1,8)
```

Out[23]:

0.0030191636511226055

In [24]:

```
from scipy.stats import poisson  
poisson.cdf(0,8)
```

Out[24]:

0.0003354626279025119

In []: