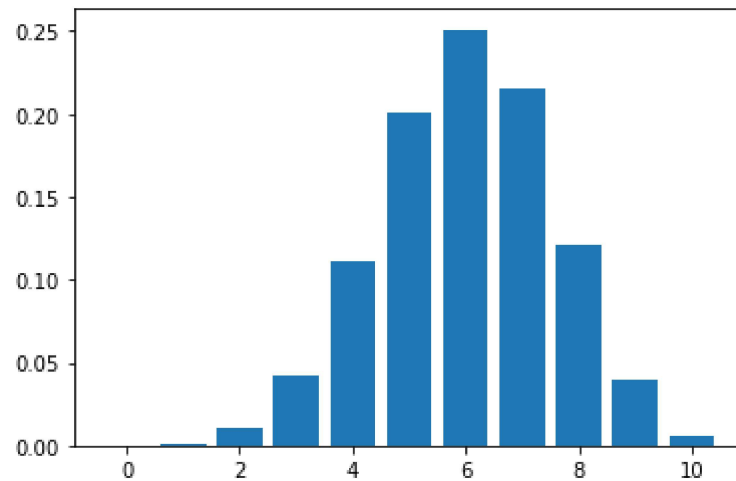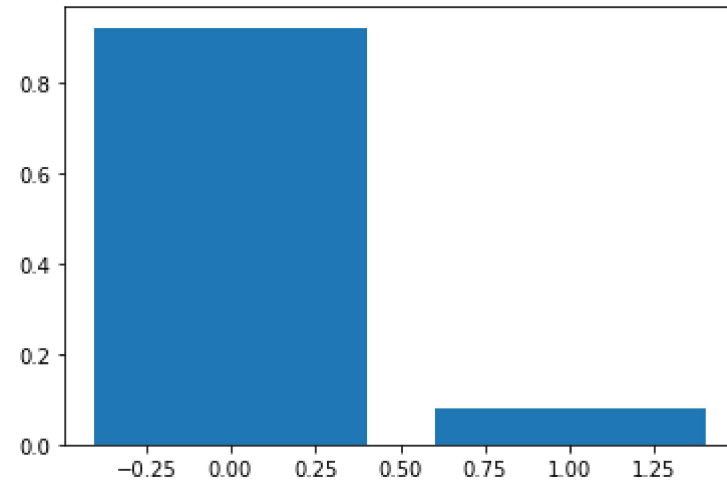**26-07-2023**

Perform Binomial, Bernoulli, Poisson, Normal, Exponential distributions

```
In [119]:  from scipy.stats import binom
           import matplotlib.pyplot as plt
```
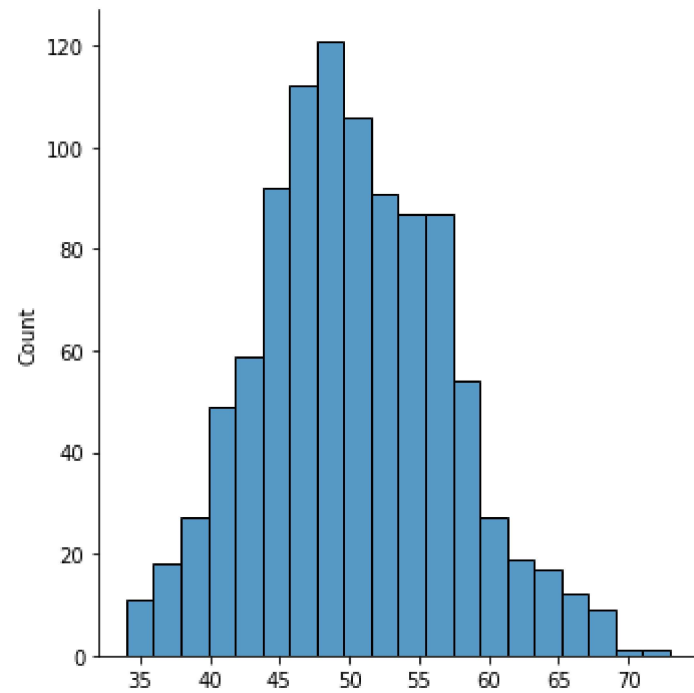
```
In [120]:  n=10
           p=0.6
           r_values=list(range(n+1))
           dist=[binom.pmf(r,n,p) for r in r_values]
           plt.bar(r_values,dist)
           plt.show()
```
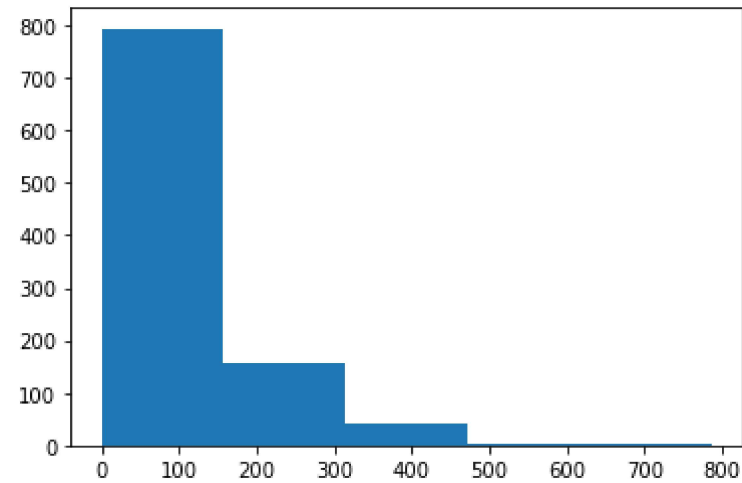
```
In [121]:  from scipy.stats import bernoulli
           bd=bernoulli(0.08)
           x=[0,1]
           plt.bar(x,bd.pmf(x))
           plt.show()
```
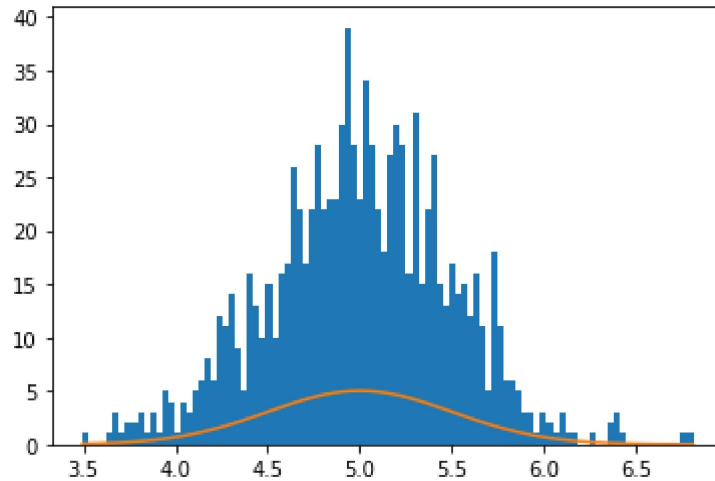
```
In [123]: from numpy import random
          import matplotlib.pyplot as plt
          import seaborn as sns
          sns.displot(random.poisson(lam=50,size=1000))
          plt.show()
```

```
In [124]: import numpy as np
          import matplotlib.pyplot as plt
          exp=np.random.exponential(100,1000)
          count,bins,ignored=plt.hist(exp,5)
          plt.show()
```

```
In [125]: import matplotlib.pyplot as plt
          import numpy as np
          mu,sigma=5,0.5
          s=np.random.normal(mu,sigma,1000)
          count,bins,ignored=plt.hist(s,100)
          #distribution curve:
          plt.plot(bins,1/sigma*np.sqrt(2*np.pi)*np.exp(-(bins-mu)**2/(2*sigma**2)))
          plt.show()
```


In [ ]: