Importing Libraries

In [1]:
```
import numpy as np
import pandas as pd
import seaborn as sns
import matplotlib.pyplot as plt
from scipy.stats import poisson,binom,expon
```

Poisson Distribution

In [2]:
```
poisson.pmf(k=15,mu=18.5)
```

Out[2]: 0.07188336510431341

In [3]:
```
1-poisson.cdf(k=6,mu=18.5)
```

Out[3]: 0.9992622541111789

In [4]:
```
poisson.pmf(k=1,mu=2)
```

Out[4]: 0.2706705664732254

In [5]:
```
poisson.pmf(k=0,mu=1)
```

Out[5]: 0.36787944117144233

In [6]:
```
poisson.pmf(k=3,mu=4/3)
```

Out[6]: 0.10413714098399081

In [7]:
```
poisson.cdf(k=1,mu=3/20)
```

Out[7]: 0.9898141728888165

In [8]:
```
poisson.pmf(k=3,mu=1.2)
```

Out[8]: 0.08674393303071422

In [9]:
```
binom.pmf(k=3,n=80,p=0.015)
```

Out[9]: 0.08660120920447566

In [10]:
```
poisson.pmf(k=0,mu=0.67)
```

Out[10]: 0.5117085777865424

Exponential Distribution

In [11]:
```
1-expon.cdf(x=10,scale=15)
```

Out[11]: 0.513417119032592

In [12]:
```
expon.cdf(x=10,scale=15)
```

Out[12]: 0.486582880967408

In [13]:
```
expon.cdf(x=5,scale=5)-expon.cdf(x=4,scale=5)
```

Out[13]: 0.08144952294577923

In [14]:
```
1-expon.cdf(x=6,scale=5)
```

Out[14]: 0.3011942119122022

In [15]:
```
(1-expon.cdf(x=9,scale=5))/(1-expon.cdf(x=3,scale=5))
```

Out[15]: 0.3011942119122021

In [16]:
```
(1-expon.cdf(x=16,scale=5))/(1-expon.cdf(x=10,scale=5))
```

Out[16]: 0.3011942119122017

In [17]:
```
(1-expon.cdf(x=106,scale=5))/(1-expon.cdf(x=100,scale=5))
```

Out[17]: 0.30119420609105596

In [18]:
```
1-expon.cdf(x=30,scale=60/3.5)
```

Out[18]: 0.17377394345044517

In [19]:
```
1-expon.cdf(x=0.5,scale=1/3.5)
```

Out[19]: 0.17377394345044517

In [ ]:
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In [ ]:
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In [ ]:
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Log Normal Distribution

In [ ]: