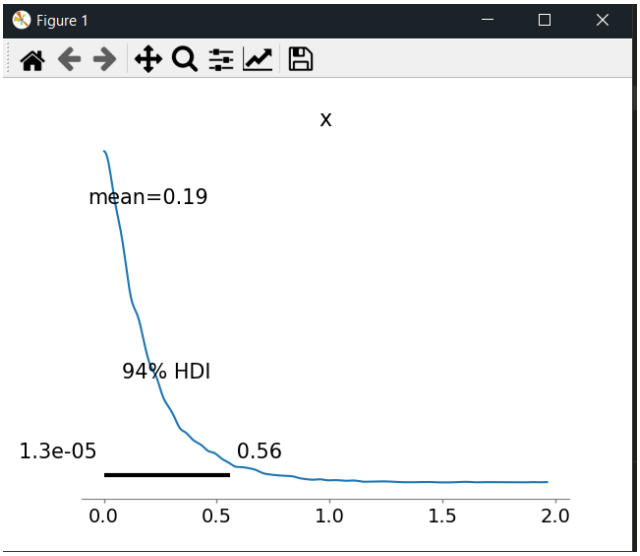
Tema laborator 2 PMP BARTIC EMILIA
3A3

EX1.




```python
import numpy as np
from scipy import stats
from scipy.stats import expon
import matplotlib.pyplot as plt
import matplotlib.pyplot as plt
import arviz as az
import random
import statistics
#x = stats.expon.rvs(0, 1, 10000)
#lambda1=4 hrs^-1 => p1=1/4=0.25
p_lambda_1 = 0.25

#lamda2=6 hrs^-1 => p2=1/6=0.16
p_lambda_2 = 0.16

X = []

#generati 10.000 de valori pentru X
for n in range(1, 10_000):
    x = random.randint(1, 100)
    if x < 40:
        # mecanicul 1
        x_mecanic1 = stats.expon.rvs(0, p_lambda_1, 1)
```

```
PROBLEMS 6  OUTPUT  TERMINAL  JUPYTER  SQL CONSOLE  DEBUG CONSOLE

Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\emili\OneDrive\Desktop\AN_3\PMP\Lab2> python -u "c:\Users\emili\OneDrive\Desktop\AN_3\PMP\Lab2\ex1.py"
0.19416341651050892
0.20305207989914806
PS C:\Users\emili\OneDrive\Desktop\AN_3\PMP\Lab2>
```
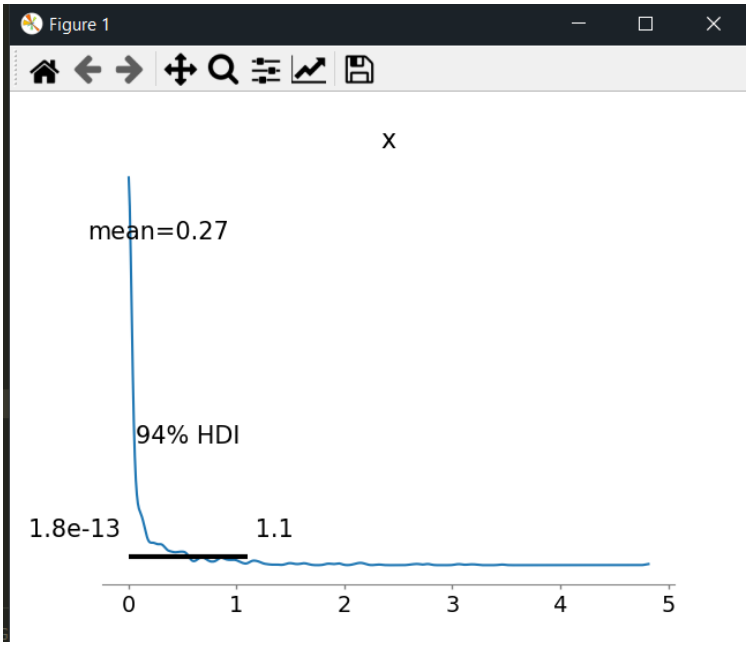
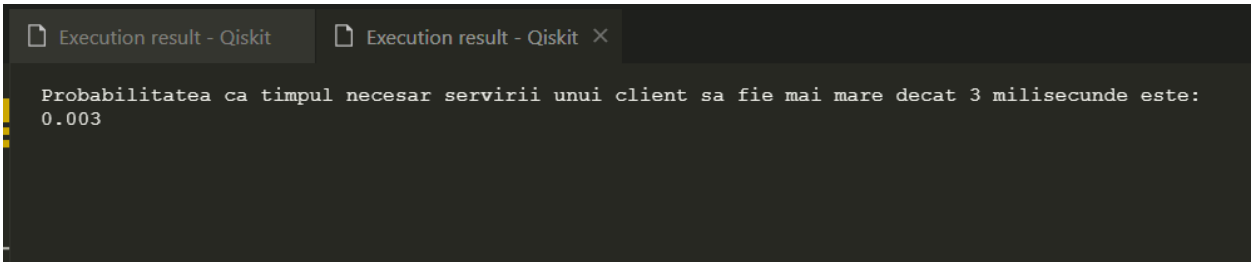

EX2.

Pentru 1000 clienti:

Nu mai avem nevoie de distributia exponentiala, ci o folosim pe cea Gamma.





EX3.

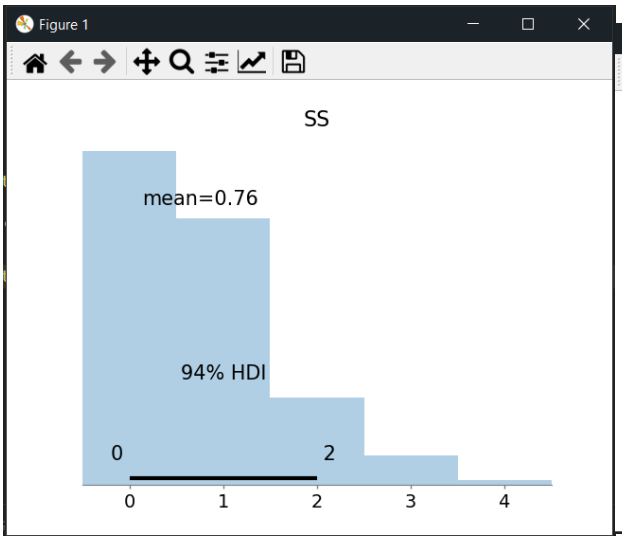


Figure 1
SS
mean=0.76
94% HDI
0
2
0
1
2
3
4

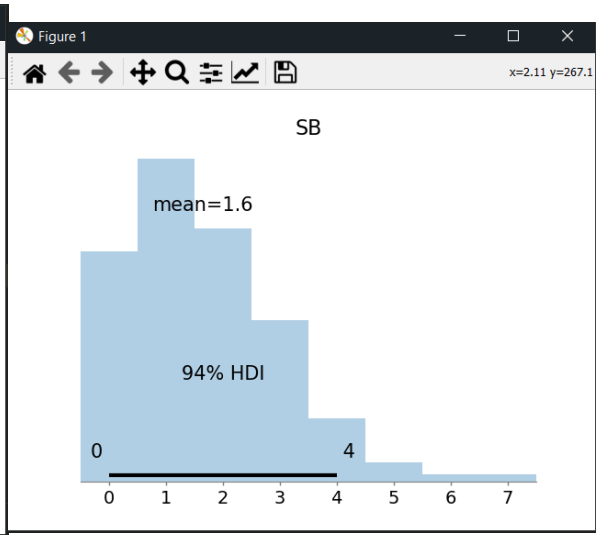


Figure 1
x=2.11 y=267.1
SB
mean=1.6
94% HDI
0
4
0
1
2
3
4
5
6
7

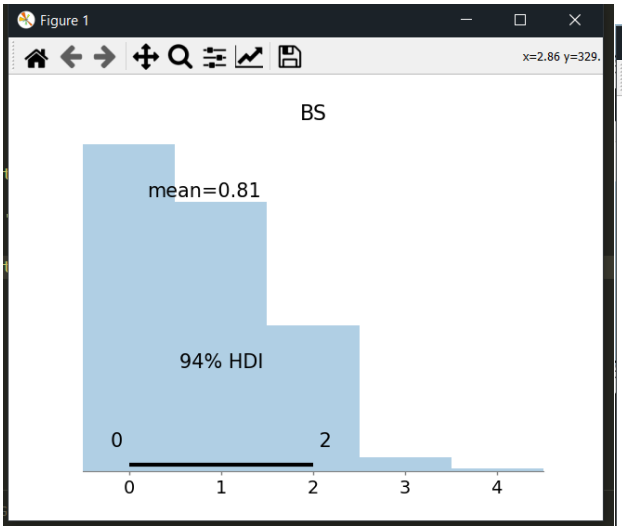


Figure 1
x=2.86 y=329.
BS
mean=0.81
94% HDI
0
2
0
1
2
3
4

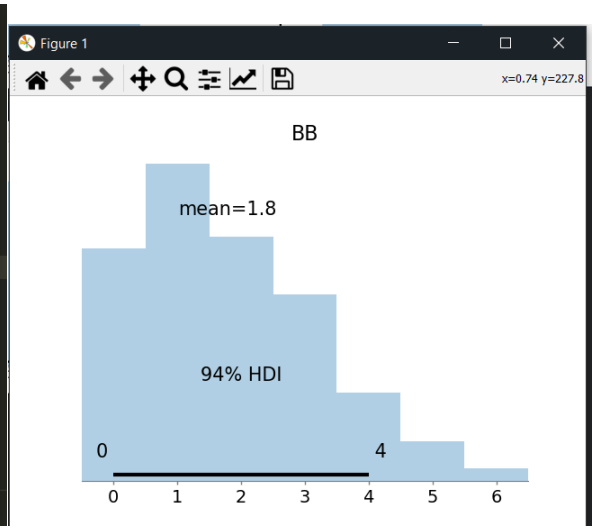


Figure 1
x=0.74 y=227.8
BB
mean=1.8
94% HDI
0
4
0
1
2
3
4
5
6