```
import numpy as np
import matplotlib.pyplot as plt
```

```
shape = 2.0
scale = 2.0
n = 1000

random_numbers = np.random.gamma(shape, scale, n)
```

```
plt.figure()

plt.hist(random_numbers, bins=100)

plt.xlabel("Value")
plt.ylabel("Frequency")
plt.title("Histogram of 1000 Gamma-Distributed Random Numbers")

plt.savefig("gamma_histogram.pdf")

plt.show()
```