codesaa

Q1.(1)

```
import numpy as np
import matplotlib.pyplot as plt
mean=0
std_dev=1
num_samples=1000
r_num=np.random.normal(mean,std_dev,num_samples)
rounded_num=np.round(r_num).astype(int)
unique_values, frequencies=np.unique(rounded_num, return_counts=True)
print(“Values|Frequencies”)
for value,frequency in zip(unique_values, frequencies):
  print(f”{value:>5}|{frequency:>9}”)
plt.bar(unique_values, frequencies, color=’red’, edgecolor=’blue’)
plt.title(“Frequency Distribution”)
plt.xlabel(“Values”)
plt.ylabel(“Frequencies”)
plt.grid(axis=’y’, linestyle=’–‘, alpha=0.7)
plt.show()
```

Q1(2)

```
odd=[]
even=[]
range_first=int(input(“Enter the first number:”))
range_last=int(input(“Enter the last number:”))
Range=range(range_first, range_last+1)
for i in Range:
  if i%2==0:
    even.append(i)
```