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CN Lab

Leaky Bucket

```
class LeakyBucket:
    def __init__(self, bucket_size, output_rate, packets):
        self.bucket_size = bucket_size
        self.output_rate = output_rate
        self.packets = packets

    def run(self):
        for i in range(len(packets)):
            print("packet{} is, size = {}".format(i, packets[i]))
            if packets[i] > bucket_size:
                print("Bucket overflow")
            else:
                while packets[i] > output_rate:
                    print(packets[i], "outputted")
                    packets[i] -= output_rate

                if packets[i]:
                    print("last {} bytes sent".format(packets[i]))

        print("Bucket output successful")

bucket_size = int(input("Enter bucket_size: "))
output_rate = int(input("Enter output rate"))
packets = list(map(int, input("Enter packets: ").split()))

leakyBucket = LeakyBucket(bucket_size, output_rate, packets)
leakyBucket.run()
```