

class Client:

```
def __init__(self, rate, data = []):  
    self.rate = rate  
    self.data = data
```

```
def __str__(self):
```

```
    return str([str(self.rate), str(self.data)])
```

class Buffer:

```
def __init__(self, buffer size, buffer = []):  
    self.buffer = buffer size  
    self.buffer = buffer
```

```
def checkstate(self):
```

```
    if len(self.buffer) == 0:  
        return True
```

```
def __str__(self):
```

```
    return str([str(self.buffer size),  
                str(self.buffer)])
```

while True

```
    data to send = input("Enter string to send")
```

```
    if i < client.rate
```

```
        client.data.append(data to send[i])
```

```
    else:
```

```
        if count < buffer.buffer size:
```

```
            buffer.buffer.append(data to send[i])
```

```
        else
```

```
            print("Data loss" + data to send  
                  [i])
```

else

$j = 0$

for  $i$  in range(0, len(data\_send) + len(buffer)):

if  $i < \text{client\_rate}$ :

if len(buffer):

client\_data.append(buffer[0])

del buffer[0]

else

client\_data.append(data\_send[i])

$j++$

else:

if len(buffer)  $\leq$  buffer\_size:

if  $j < (\text{data\_to\_send})$

buffer.append(data\_send[i])

$j++$

else:

if  $j < \text{len data\_to\_send}$ :

print("Data loss" + data\_send[i])

$j++$

print(buffer)  
print(client)