Python基础 第十三天作业

1. 制作一个Ping的类

代码：

from kamene.all import \*  
from kamene.layers.inet import ICMP, IP  
class Qping():  
 def \_\_init\_\_(self, ipaddr):  
 self.ipaddr = ipaddr  
 self.srcip=None  
 self.length = 100  
 self.ping\_pkt =IP(dst=self.ipaddr) / ICMP()  
  
  
 def src(self, srcip):  
 self.srcip = srcip  
 self.ping\_pkt = IP(dst=self.ipaddr, src=self.srcip) / ICMP()  
  
 def size(self, length):  
 self.length = length  
 self.ping\_pkt = IP(dst=self.ipaddr, src=self.srcip,len=self.length) / ICMP()  
  
 def one(self):  
 ping\_result = sr1(self.ping\_pkt, timeout=2, verbose=False)  
 # print(self.ping\_pkt.show())  
 if ping\_result:  
 print(f'{self.ipaddr} 可达！')  
 else:  
 print(f'{self.ipaddr} 不可达！')  
 def ping\_five(self):  
 for i in range(5):  
 ret = sr1(self.ping\_pkt, timeout=2, verbose=False)  
 # print(self.ping\_pkt.show())  
 if ret:  
 print('!',end='',flush=True)  
 else:  
 print('.',end='',flush=True)  
 print()  
  
 def \_\_str\_\_(self):  
 if self.srcip is None:  
 return '<%5s=>dest\_ip: %5s,size: %s>' % (self.\_\_class\_\_.\_\_name\_\_,self.ipaddr,self.length)  
 else:  
 return '<%5s=>dest\_ip: %5s,src\_ip:%5s,size: %s>' % (self.\_\_class\_\_.\_\_name\_\_,self.ipaddr,self.srcip,self.length)  
  
class Newping():  
 def \_\_init\_\_(self, ipaddr):  
 self.ipaddr = ipaddr  
 self.srcip=None  
 self.length = 100  
 self.ping\_pkt =IP(dst=self.ipaddr) / ICMP()  
 def size(self, length):  
 self.length = length  
 self.ping\_pkt = IP(dst=self.ipaddr, src=self.srcip,len=self.length) / ICMP()  
 def ping\_five(self):  
 for i in range(5):  
 ret = sr1(self.ping\_pkt, timeout=2, verbose=False)  
 # print(self.ping\_pkt.show())  
 if ret:  
 print('!',end='',flush=True)  
 else:  
 print('+',end='',flush=True)  
 print()  
 def \_\_str\_\_(self):  
 if self.srcip is None:  
 return '<%5s=>dest\_ip: %5s,size: %s>' % (self.\_\_class\_\_.\_\_name\_\_,self.ipaddr,self.length)  
 else:  
 return '<%5s=>dest\_ip: %5s,src\_ip:%5s,size: %s>' % (self.\_\_class\_\_.\_\_name\_\_,self.ipaddr,self.srcip,self.length)  
  
if \_\_name\_\_ == '\_\_main\_\_':  
 ping = Qping('1.1.1.200')  
 total\_len =70  
 def pring\_new(word,s='-'):  
 print('{0}{1}{2}'.format(s\*int((70-len(word))/2),word,s\*int((70-len(word))/2)))  
 pring\_new('print class')  
 print(ping)  
 pring\_new('ping one for sure reachable')  
 ping.one()  
 pring\_new('ping five')  
 ping.ping\_five()  
 pring\_new('set payload lenth')  
 ping.size(200)  
 print(ping)  
 ping.ping\_five()  
 pring\_new('set ping src ip address')  
 src\_ipaddr = '2.2.2.20'  
 ping.src(src\_ipaddr)  
 print(ping)  
 ping.ping\_five()  
 pring\_new('new class NewPing','=')  
 newping=Newping('1.1.1.200')  
 newping.size(400)  
 print(newping)  
 newping.ping\_five()

运行结果： 