

exp8

April 21, 2022

```
[ ]: import time
      from threading import Thread, RLock
```

```
[ ]: class Shared:
      def __init__(self):
          self.lock = RLock()

      def test1(self, arg):
          with self.lock:
              print("test 1 begin")
              time.sleep(1)
              arg.test2(self)
              print("test 1 end")

      def test2(self, arg):
          with self.lock:
              print("test 2 begin")
              time.sleep(1)
              arg.test1(self)
              print("test 2 end")

      class Thread1(Thread):
          def __init__(self, s1, s2):
              super().__init__()
              self.s1 = s1
              self.s2 = s2

          def run(self):
              self.s1.test1(self.s2)

      class Thread2(Thread):
          def __init__(self, s1, s2):
              super().__init__()
              self.s1 = s1
              self.s2 = s2

          def run(self):
```

```
self.s2.test2(self.s1)
```

```
[ ]: s1 = Shared()
      s2 = Shared()

      t1 = Thread1(s1,s2)
      t1.start()

      t2 = Thread2(s1,s2)
      t2.start()

      time.sleep(2)
```

```
test 1 begin
test 2 begin
```

```
[ ]:
```