



































```
import Pyro4
from bloodbag import BloodBag
class BloodBank(object):
        def init (self):
                self.storage = []
        def list_storage(self):
                for bag in self.storage:
                        return bag. __dict__
        def retrieve(self, doctorname, bagid, patient):
                for bag in self.storage:
                        if bag.bagid == bagid:
                                self.storage.remove(bag)
                print('{0} retrieved a blood bag for {1}'.format(doctorname, patient))
        def store(self, bagid, bloodtype, donor, collectiondate, expirydate, address):
                bag = BloodBag(bagid, bloodtype, donor, collectiondate, expirydate, address)
                self.storage.append(bag)
```

```
class BloodBag(object):
    def __init__(self, bagid, bloodtype, donor, collectiondate, expirydate, address):
        self.bagid = bagid
        self.type = bloodtype
        self.donor = donor
        self.collectiondate = collectiondate
        self.expirydate = expirydate
        self.address = address
```

```
class Doctor(object):
        def __init__(self, name, speciality, hospital):
                self.name = name
                self.speciality = speciality
                self.hospital = hospital
        def retrieve bloodbag(self, person, bloodbank):
                bag = bloodbank.list storage()
                if bag['type'] == person.bloodtype:
                        bloodbank.retrieve(self.name, bag['bagid'], person.name)
                else:
                        print('No {0} blood bags in storage'.format(person.bloodtype))
```

```
class Person(object):
        def __init__(self, name, bloodtype, phonenumber, address):
                self.name = name
                self.bloodtype = bloodtype
                self.phonenumber = phonenumber
                self.address = address
        def donate(self, bloodbank):
                cdate = datetime.datetime.now()
                edate = cdate + datetime.timedelta(days=42)
                bloodbank.store(1, self.bloodtype, self.name, cdate, edate, self.address)
                print('Thank you for donating')
```