ESOF 322 HW1

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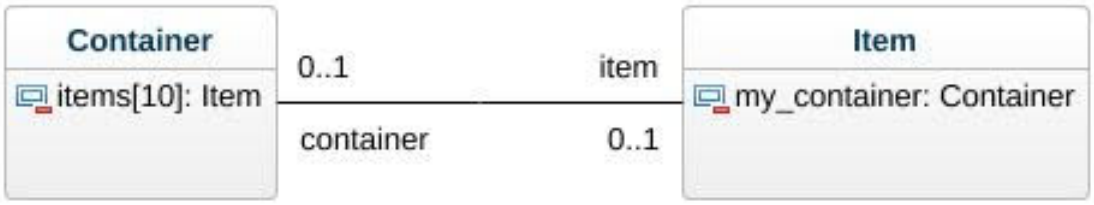
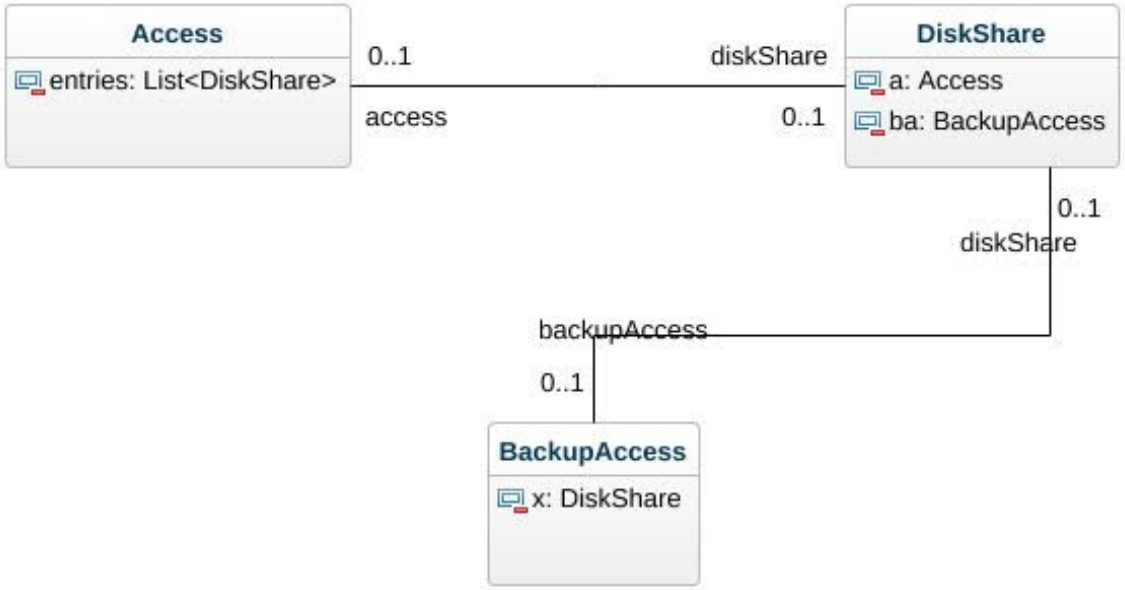
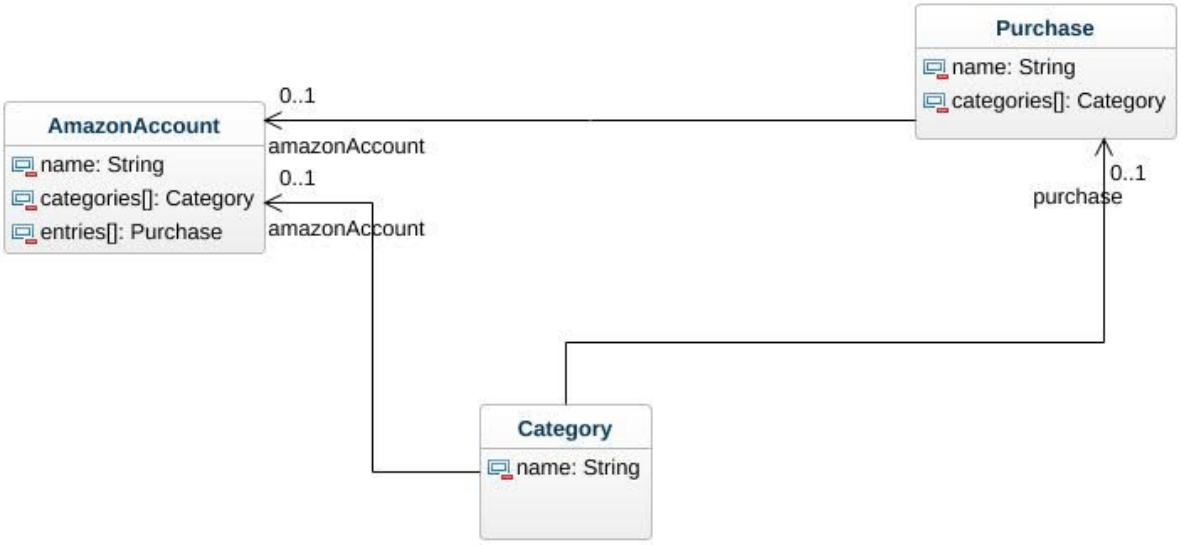
Problem 1



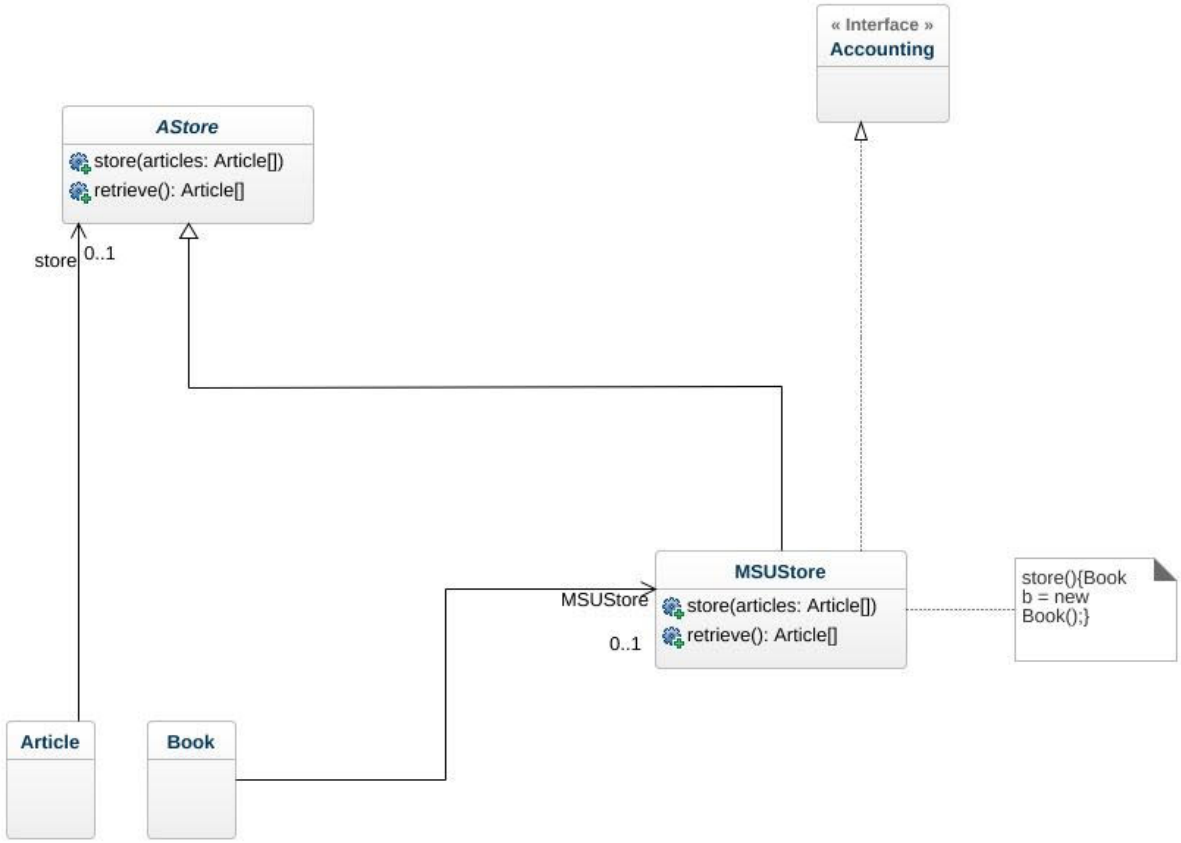
Problem 2


Access
entries: List<DiskShare>
0..1
access
diskShare
0..1
DiskShare
a: Access
ba: BackupAccess
0..1
diskShare
backupAccess
0..1
BackupAccess
x: DiskShare

Problem 3


Purchase
name: String
categories[]: Category
0..1
amazonAccount
AmazonAccount
name: String
categories[]: Category
entries[]: Purchase
0..1
amazonAccount
0..1
purchase
Category
name: String

Problem 4


« Interface »
Accounting
AStore
store(articles: Article[])
retrieve(): Article[]
store
0..1
MSUStore
store(articles: Article[])
retrieve(): Article[]
MSUStore
0..1
store(){Book
b = new
Book();}
Article
Book

Problem 5

(Picture 1 of 2)

```
public class Company(){
    private Customer customer;
    private Service service;
    private Truck truck;
    private Car car;
    private Motorbike motorbike;
    public String name;
    public Address headquarters;
}

public class Employee extends Person(){
}

public class Person(){
    private Address address;
    public String name;
    public String email;
}

public class Customer extends Person(){
    private BankAccount bankAccount;
}

public class Subcontractor extends Employee and Customer(){
}

public class BankAccount(){
    private final Customer customer;
    public UnlimitedNatural number;
    public String depositor;
    public String bank;
}

public class Address(){
    public String street;
    public String postalCode;
    public String city;
}

public class Service(){
    public Customer customer;
}
```

Problem 5

(Picture 2 of 2)

```
public class VehicleRentalService extends Service(){
    private final Company company;
    public Vehicle vehicle;
    public void offerCar(){
    }
    public void offerMotorbike(){
    }
    public void offerTruck(){
    }
}

public class Truck extends Vehicle(){
    public UnlimitedNatural weight;
    public UnlimitedNatural power;
    public String manufaturer;
    public String regNo;
}

public class Car extends Vehicle(){
    public CarKind kind;
    public UnlimitedNatural noSeats;
    public UnlimitedNatural power;
    public String manufacturer;
    public String regNo;
}

public class Motorbike extends Vehicle(){
    public MbKind kind;
    public UnlimitedNatural cylinderCap;
    public UnlimitedNatural power;
    public String manufacturer;
    public String regNo;
}

public class Vehicle implements Rentable{

}

public interface Rentable{
    public void rent(){...}
}
```