Names:

Shereen Gamal (33)

Asmaa

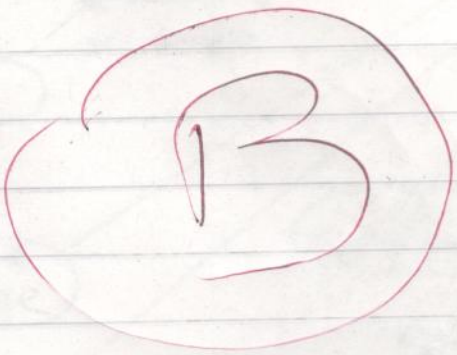
Menna Selim (67)

Menna Salah Elkmaah (68)

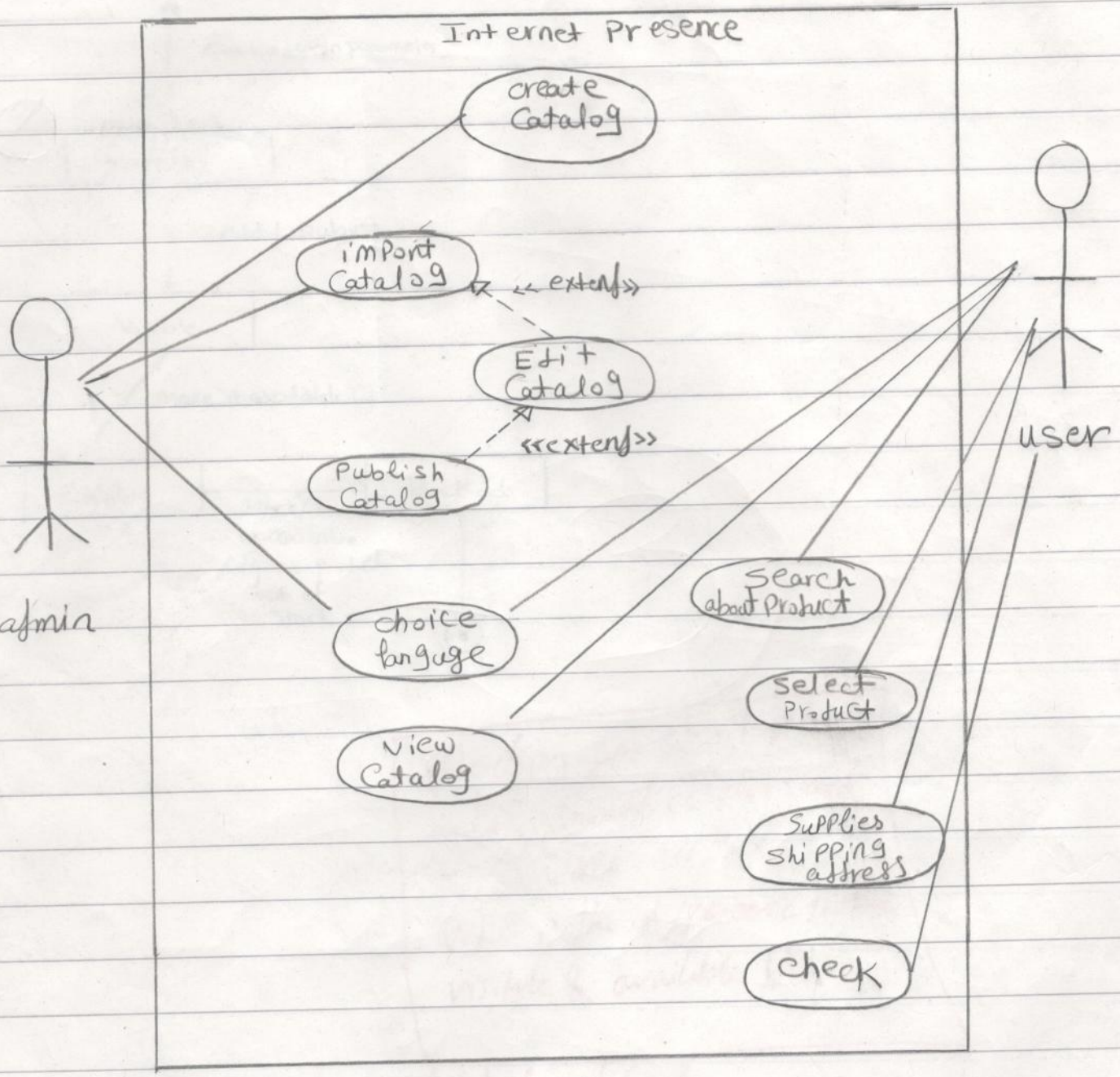
Myrna Fayez Boules (70

Test :-

2008

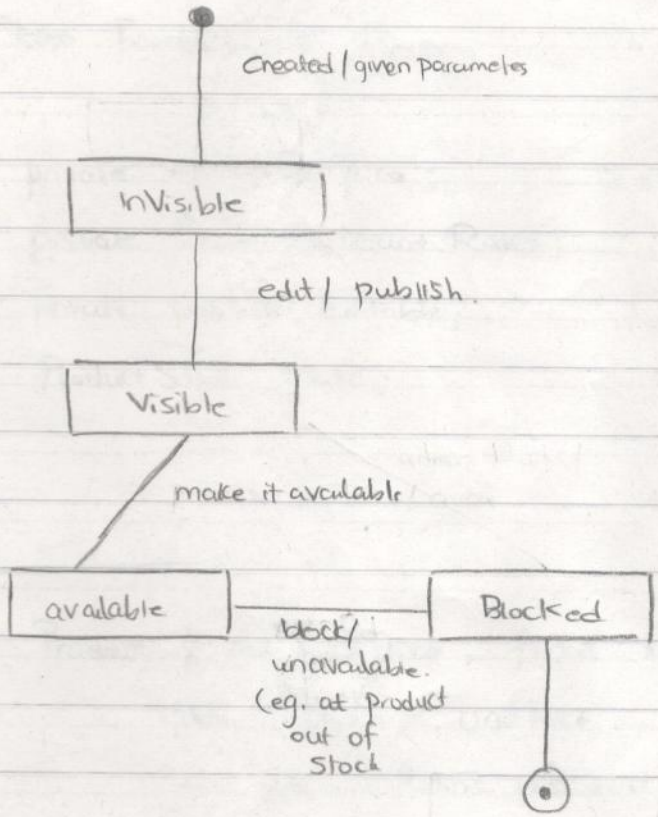


Question (1):


Internet Presence
create Catalog
import Catalog
<< extend >>
Edit Catalog
<<extend>>
Publish Catalog
admin
user
choice language
search about Product
select Product
view Catalog
Supplies shipping address
check

Question (2).

State Digrame.



Blocking for short period and it should return back to available
What is the difference between visible & available !!!

Mohamed Saad

Question (2) : product Class

```
Class Product( ) {

    private int unitPrice;
    private float discountRatio;
    private boolean eddtable;
    Product State State;


    Product ( int unitPrice, float discountRatio) {
        this.unitPrice = UnitPrice
        this. discount Ratio= discount Ratio;
        this.State= new invisible( );
        this. eddtable = true;


    }

    Public boolean setPrice ( int newPrice) {
        if ( eddtable) { this. unt Price = newPrice;
            return true;
        }
        return false;
    }
```

```
Public Void getUnitPrice ( ) {  return this.unitPrice ; }

Public boolean setDiscountRatio ( float newRation
        if ( this.editable ) {  this.dicountRatio = newRatio ;
        return true
        }
    return false ;
}


Public float getDiscountRatio ( ) { return discountRatio ; }


Public int getPriceAftenDiscount ( int numberofItems ) {
        return numberOfItems * discountRatio ;
}


Pubic Void setState ( ProductState newState ) {
        this.State = newState ;
}

Public ProductState getState ( ) { return this.State ; }
```

Question (2) : Java Skeleton Code.

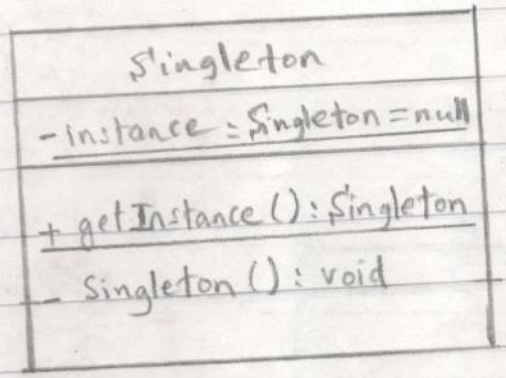
```
Interface ProductState {
    Public boolean isVisible( );
    Public booleam editable( );
}

Abstract Class Visible implements ProductState {
  private final boolean visible = true;
  protected boolean available;

  Public boolean isVisible( ) {
      return visible;
  }
  Public boolean isAvailable( ) {
      return Available; }
Public boolean isEditable( ) {
      return true;
}

  Class Available extents Visible {
      Public Visible( ) {
          Super. available = true;
}
```

```
Class Blocked extends Visible {
    Blocked ( ) {
        Super. available = false ;
    }
}
```

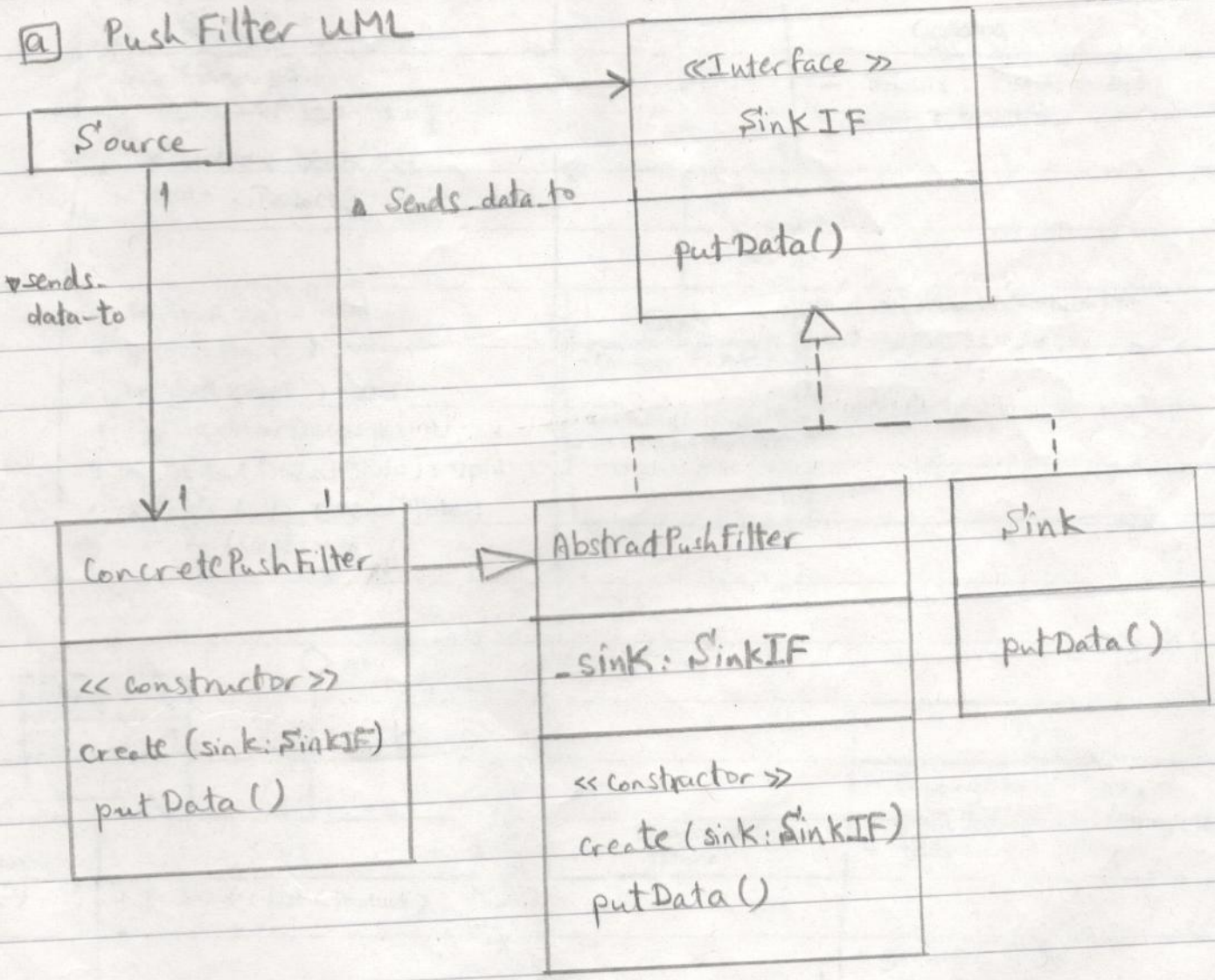
```
Class Invisible implements ProductState ( ) {
  Private final boolean visible = false , editable = true ;

  public boolean isVisible ( ) { return visible ; }
  public boolean isEditable ( ) { return editable ; }
```

Question (6):

(a) Singleton UML



(a) Push Filter UML



Question (3)

CGS Tree structure is missing do it like "Composite" design pattern

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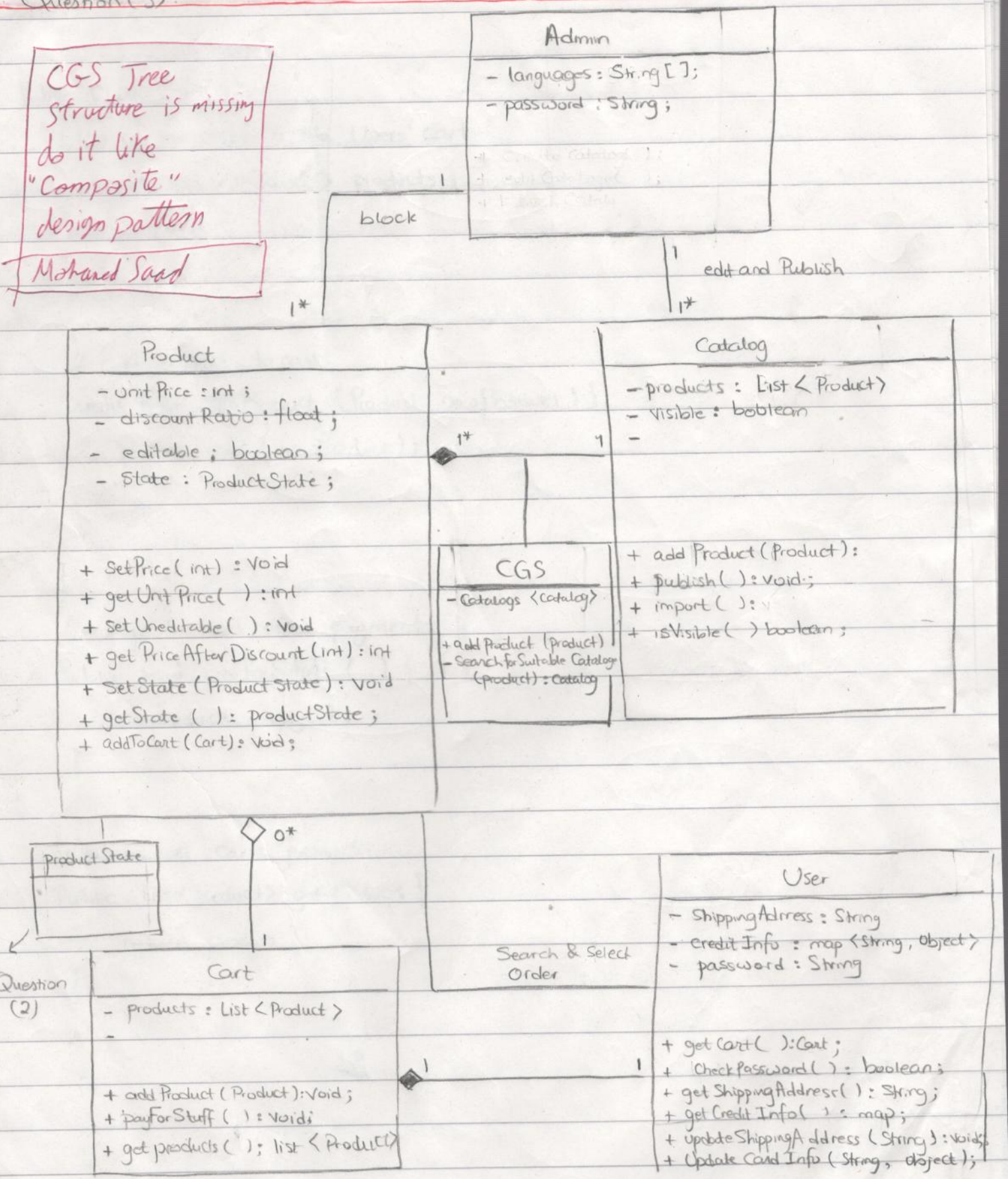


Question (4)

```
Public Class Cart {
  // list of products in the Users' cart
    private list < product > products ;



  // add product to cart
  public void addProduct (Product newProduct) {
      products.add (newProduct);


  }
  //empty the cart after payment
  Public void payforStuff ( ) {
        products.empty( );
  }

  // return all carts products.
  Public List<Product> getProducts {
      return produts
  }
```

```
Class User {
    private String shippingAdress , password;
    private map. <String, Object> CreddInfo
    private Cart myCart;

    User ( String shippingAdress , map <String, Object CreddInfo ,
          String password )
     { this . password = password;
       this. CreddInfo = CreddInfo;
       this. Shipping Address = ShippingAddress


     }


    Public Cart getCart ( ) {
        return myCart
    }


    Pubic String get Shipping Adress ( ) {
        return shippingAdress
    }
```

```
public map<String, Object> getCreditInfo( )
    { return CreditInfo;
    }

Public Boolean checkPassword ( String Password ) {
    if (this.password == password ) }
        return true; }
    return false

Public updateShippingAddress ( String newAddress ) {
    ShippingAddress = newAddress;
    }

Public UpdateCardInfo ( String key , Object newInfo ) {
    CreditInfo.set ("key", newInfo);
}
```

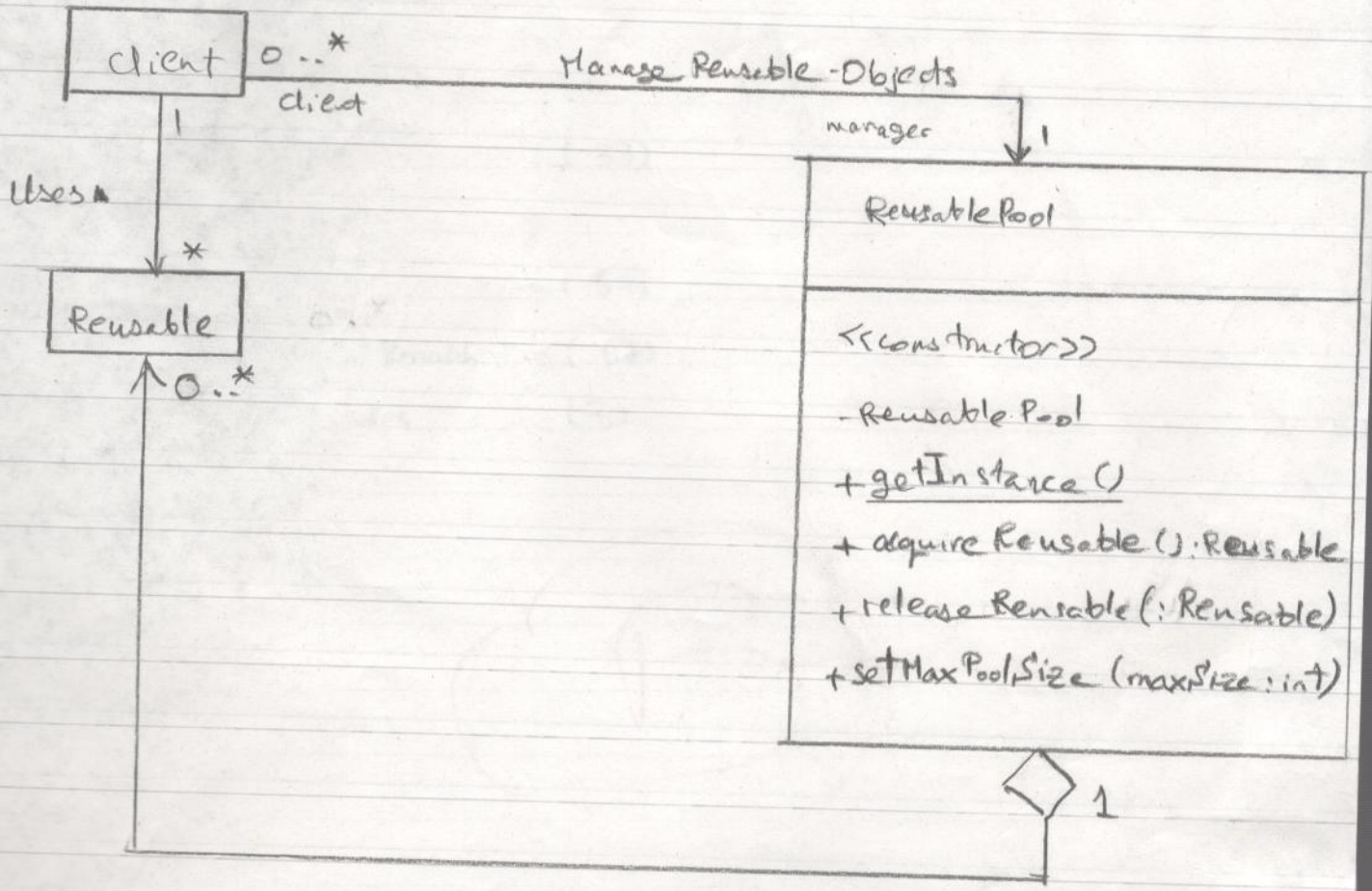
```
Class Catalog {

    Private list<Product> products;

    Private boolean visible;


    Public Catalog {
        Visible = false;
        Products = new Arraylist <product>();


    }


    // adding product to Catalog after Checking CGS by the System.
Public void addProduct (Product newProduct) {
        products.add (newProduct);
}


    Public void publish( ) {
        this.visible = true;
    }
```

```
Class Admin {
    private final String [ ] Languages = { "English", "Arabic", "Spanish"
            "French", "Italian" };
    private String password


Public Admin ( String password) {
    this.password = password;
}
```

```
Class Cgs {
  List < Catalog > catalogs;

public addProduct ( Product newProduct ) {
      Catalog suitableCatalog = SearchSuitableCatalog( newProduct );
      SuitableCatalog.add (newProduct );

}

private Search Suitable Catalog. ( Product addProduct ) {
```

Question(5)

- Pool design pattern UML



This is wrong answer
Pool is not for
Pagging

Mohmad Said