19- Gehad Fathy Mohamed

25- Salma Abd el Aziz Abd el Hamid

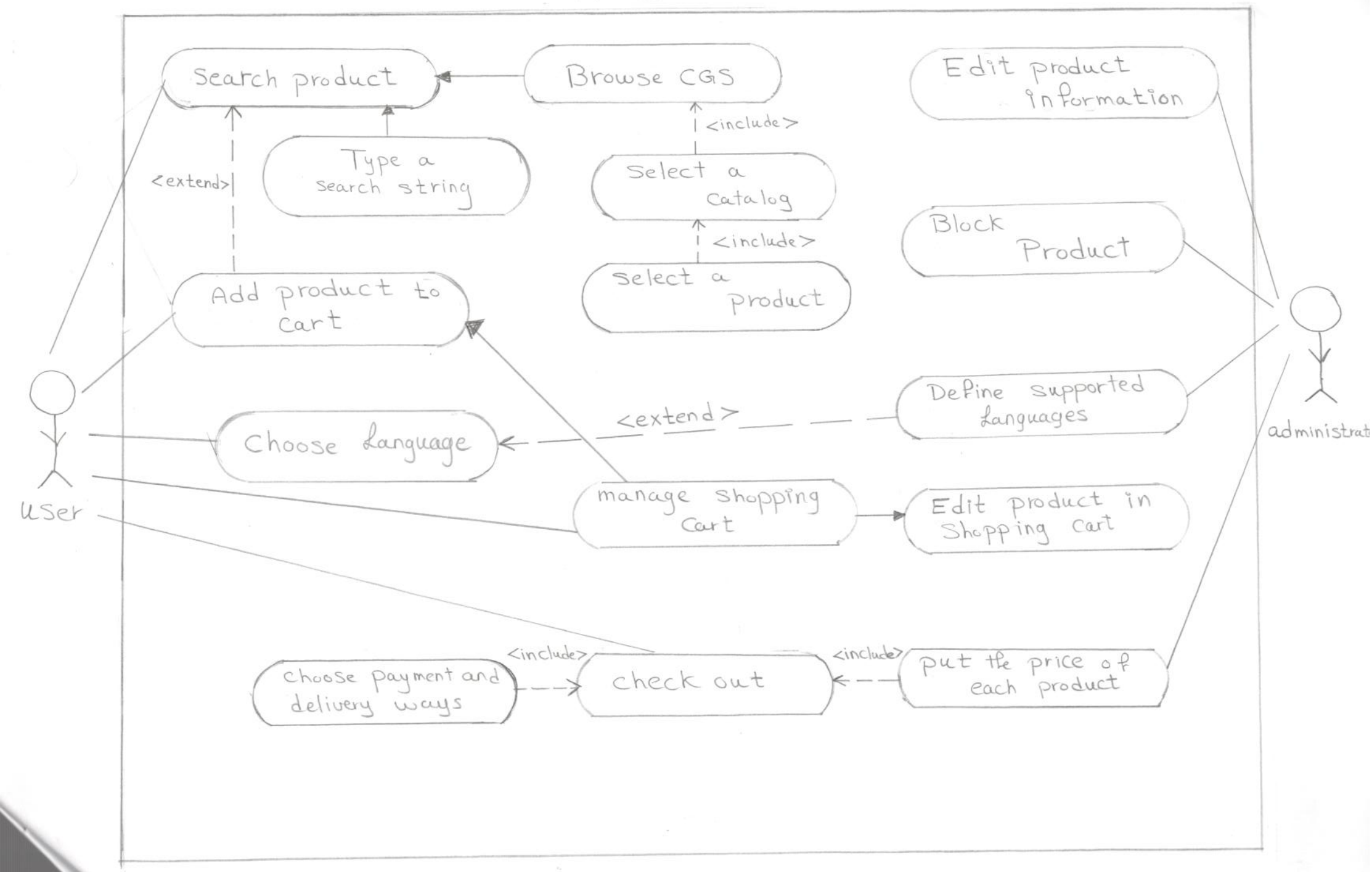
26- Salma Mohamed Mohamed

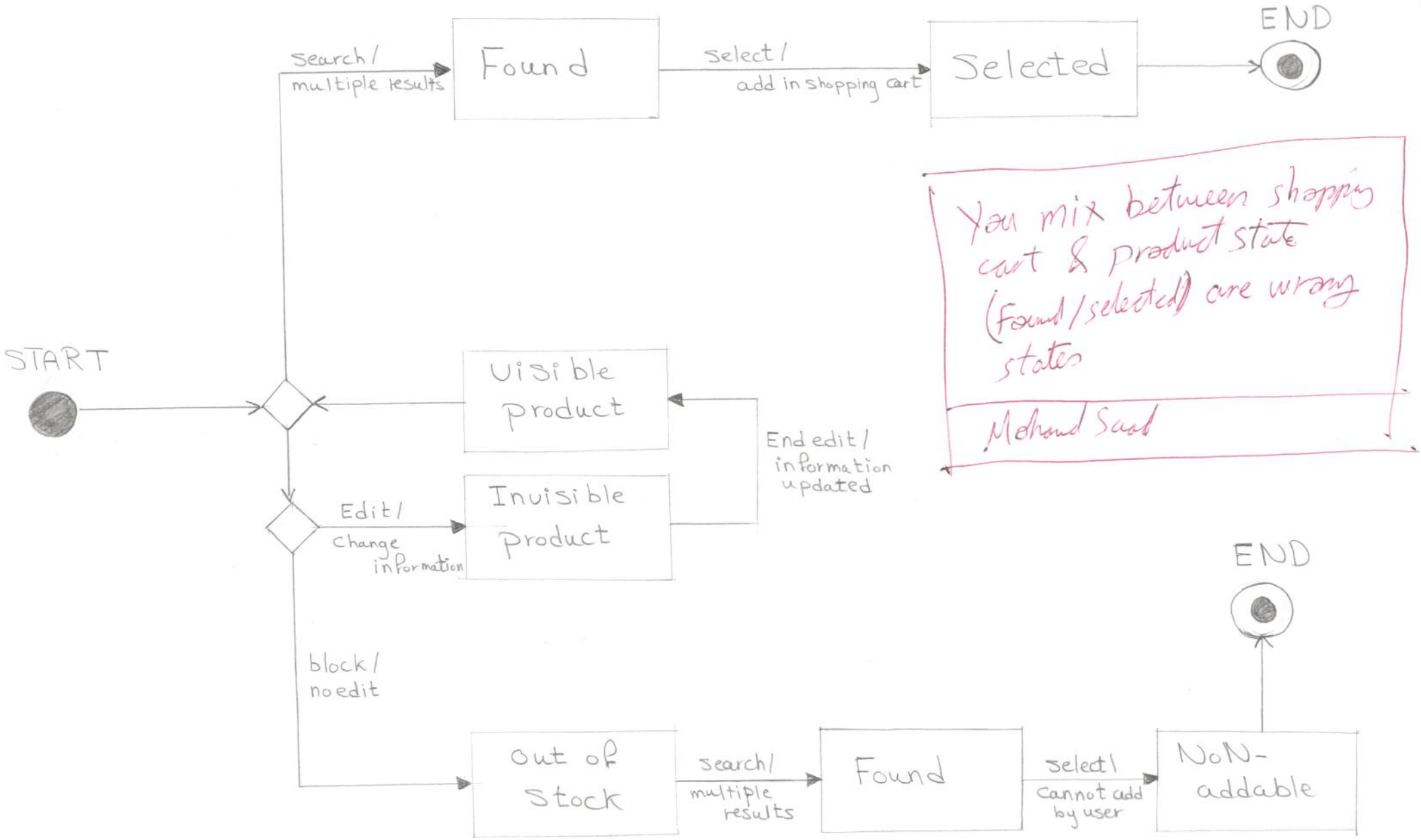
28- Shadwa Abd el Mobdy Aly

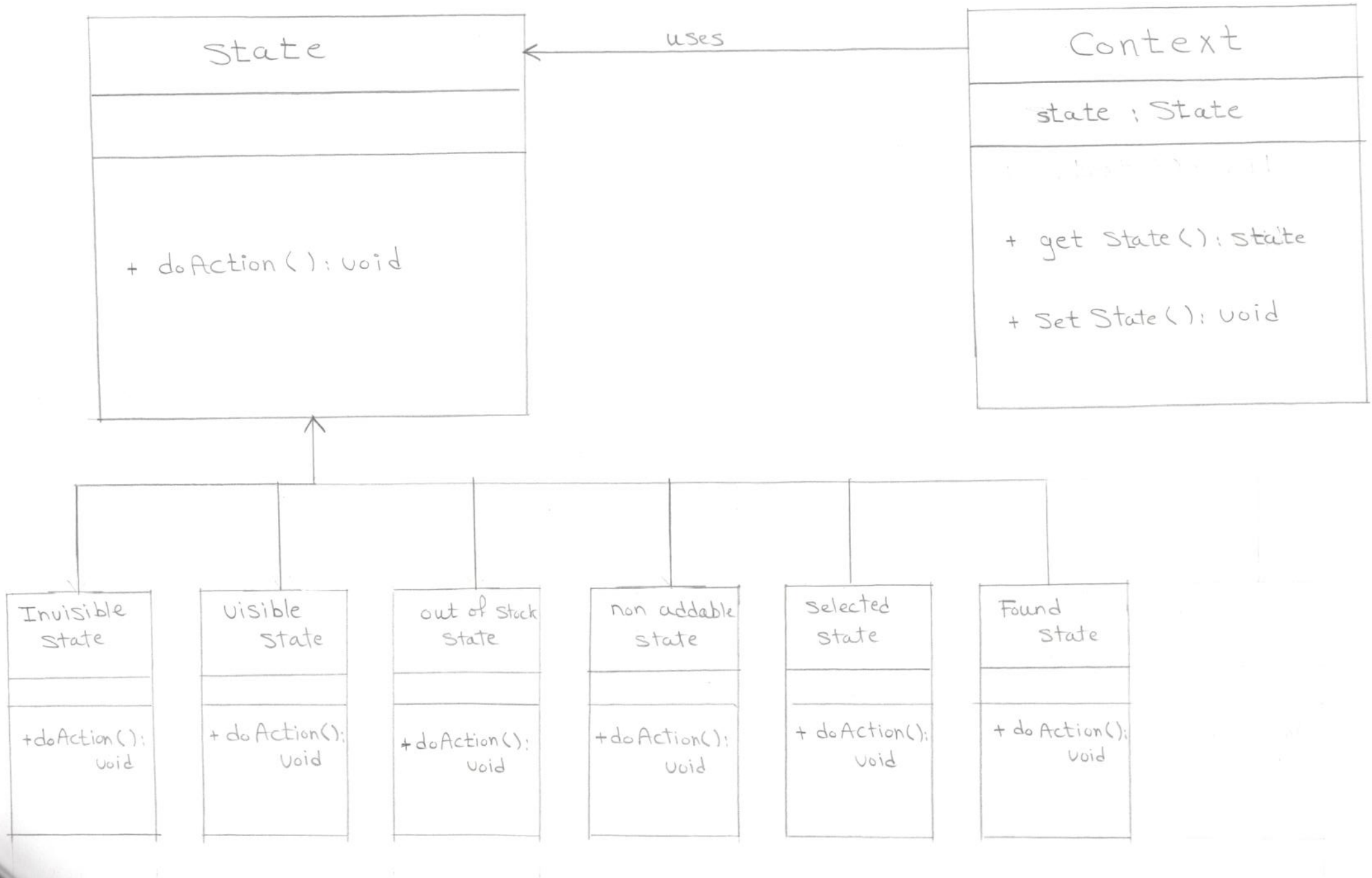
B

2008

Shopping website




END
search/
multiple results
Found
select/
add in shopping cart
Selected
You mix between shopping cart & product state (Found/selected) are wrong states
Mehmud Saad
START
Visible product
End edit/
information updated
Edit/
Change information
Invisible product
END
block/
no edit
out of Stock
search/
multiple results
Found
select/
cannot add by user
NoN-addable


State
+ doAction(): void
uses
Context
state : State
+ get State(): state
+ Set State(): void
Invisible State
+doAction(): void
visible State
+ doAction(): void
out of Stock State
+doAction(): void
non addable state
+doAction(): void
Selected State
+ doAction(): void
Found State
+ doAction(): void

[1] Context class

```
public class Context {
    State state;
    public void setState(State state){
        this.state = state;
    }
    public State getstate(){
        return state;
    }
}
```

[2] State Class (Abstract class)

```
Public class State {
    public void doAction(Context c){ }
}
```

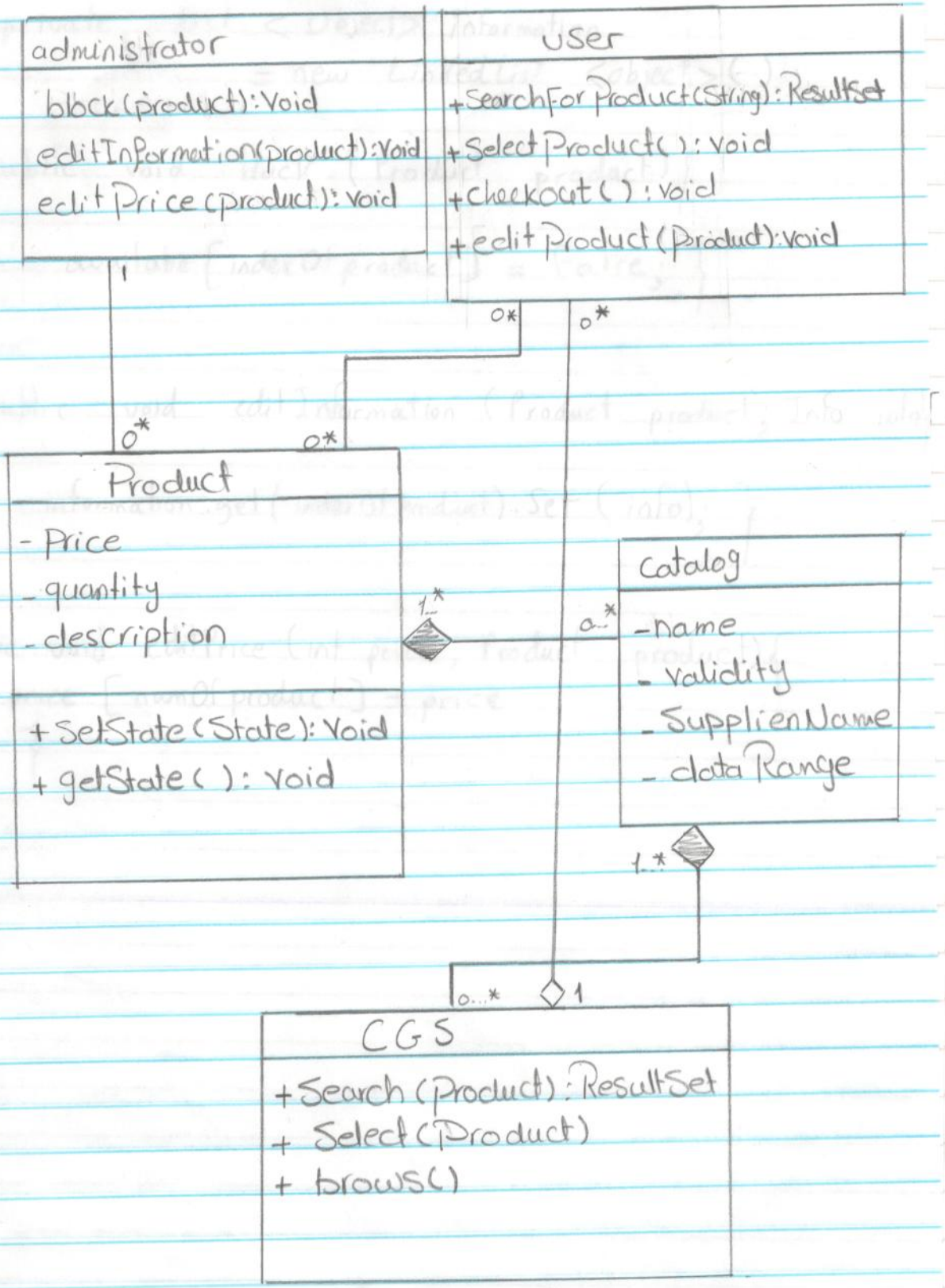
[3] visible State Class

```
Public class VisibleState extends State{
    Public void do Action (Context c){
        C.SetState(this);
    }
}
```

(@3)

CGS Tree is missing
do it as "Composite"
design pattern

Mahmoud Saad



[Q4] public class Administrator {

```
private int price [ ] = new int [ ];
private boolean availabe [ ]
        = new boolean [numOfProducts];

private List <Object> information
        = new LinkedList <object>( );

public void Book (Product product) {

    availabe [indexOfproduct] = False; }

public void editInformation (Product product, Info info){

    information.get(indexOfproduct).Set(info); }

public void editPrice (int price, Product product){
    price [numOfproduct] = price
    }

}
```

```
Public Class User {
    Private int [ ] quantityArray = new int [ ];
    Private CGS c = new CGS( );

    public ResultSet searchforProduct ( String s){
        Resultset result = c. search (s);
        return result
    }

    public void selectProduct ( Product product){
        c. select ( product);
    }

    public void checkout ( ){

    }

    public void editProduct (Product product, int quantity){
        quantityArray [indexOf Product] = quantity
    }

}
```

```
Public Class Product {
    Private int price =0
    Private int quantity=0
    Private String description = " "

    public void setPrice ( int price) {
        this .price = price ;
    }
    public void setQuantity (int quantity){
        This . quantity = quantity ;
    }

    public void setDescription (String description){
        This . description = description
    }

    public int getPrice ( ) { return price;}

    public int getQuantity ( ) { return quantity ; }

    public String getDescription( ) { return description ; }
```

```
public class Catalog ( ) {
    Private List <Product > lProduct = new List <Product> ;
    Private String name ; supplie Name = " " ;
    Private boolean valid = False ;
    Private int dataRange = 0

    public void setName (String name) {
        This . name = name;
    }
    public void setSupplieNane ( String supplierName ) {
        This . supplie Name = supplierName ;
    }
```

```
public void setValidate (boolean validate){
    This. validate = validate;
}

public void SetdataRange ( int dataRange)
    This. dataRange = data Range;
}
public List <Product> getlist ( ) { return LProduct; }
public String getName ( ){ return name;}
public String get Supplier Name ( ){ return supplier Name;}
public boolean getValidate( ) { return validate }
public int getData Range( ) { return dataRange; }
```

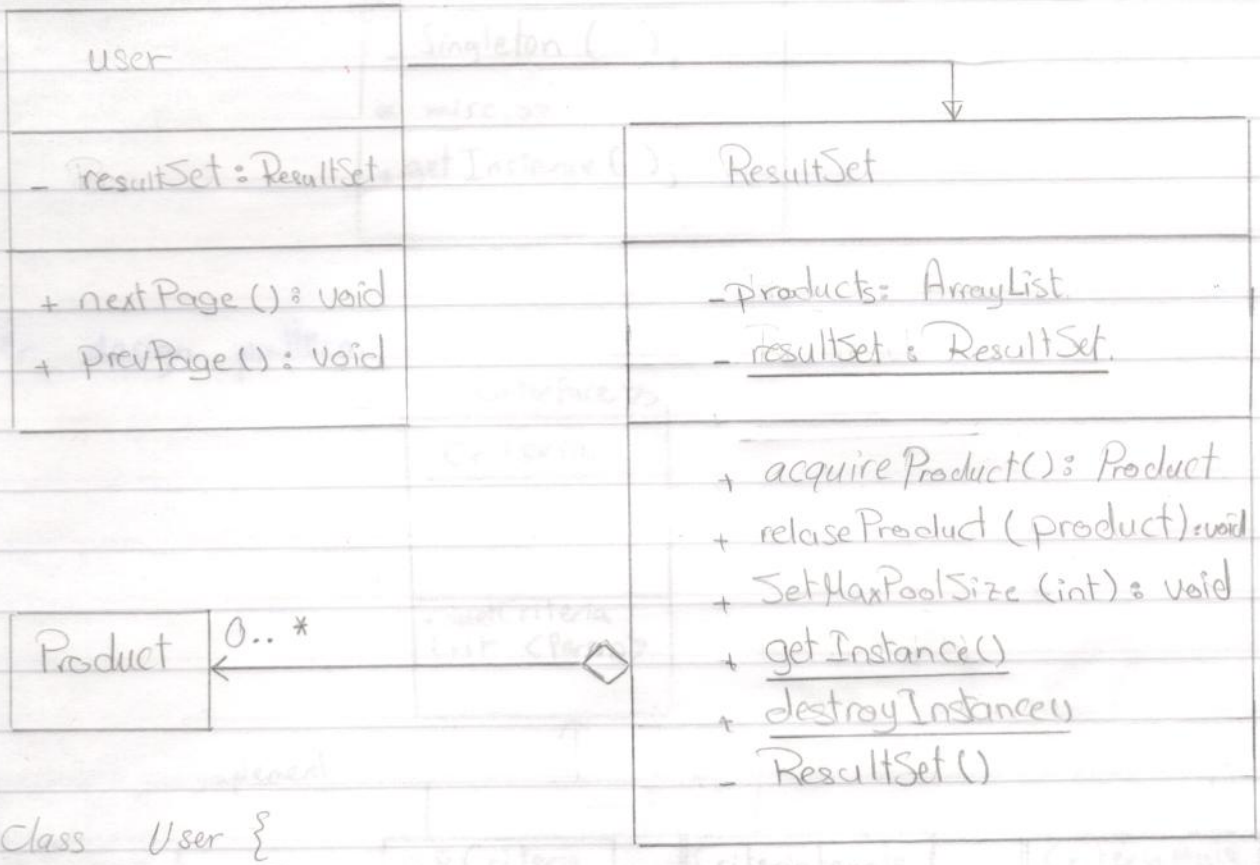
```
public class CGS{
  private List < Catalog> L= new List <catalog> ( );
  private ResultSet result = new ResultSet ( );
  public ResultSet search ( Product product) {
      For (int i=0 ; i< L. size ( ); i++) {
       LTemp = L. get(i) . get list ( );
        For (int j=0 ; j<LTemp. size( ); j++ {
          if ( product . equals (lTemp. get (j))
              result. add (product);
        }
      }
      return result ;
  }

public void select Product ( product product) {

}

public void browse ( ) {

}
```

This is wrong answer
Pool is not for that

Mohamad Saad

Question 5

object pool + Singleton «UML class diagram»



* Class User {
  private ResultSet resultSet;

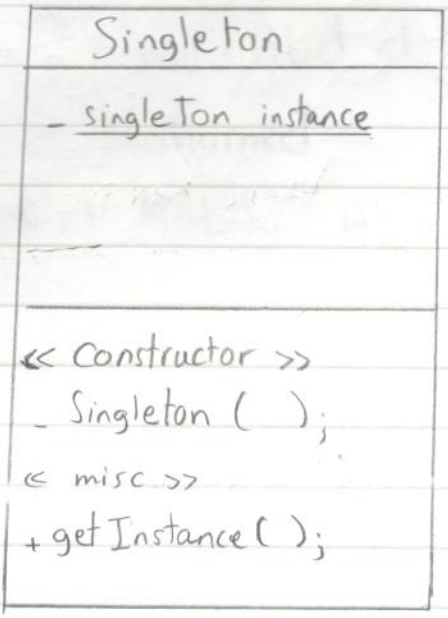
  public void nextPage();
  public void prevPage();
}

* class ResultSet {
  private Product[] products ;
  private static ResultSet resultSet;

  Private ResultSet();
  public Product acquireProduct();
  public void relaseProduct(Product product);

```
public void setMaxPoolSize(int maxSize);
public static ResultSet getInstance();
public static void destroyInstance();

}
```

6 SingleTon;



Filter design pattern;