B

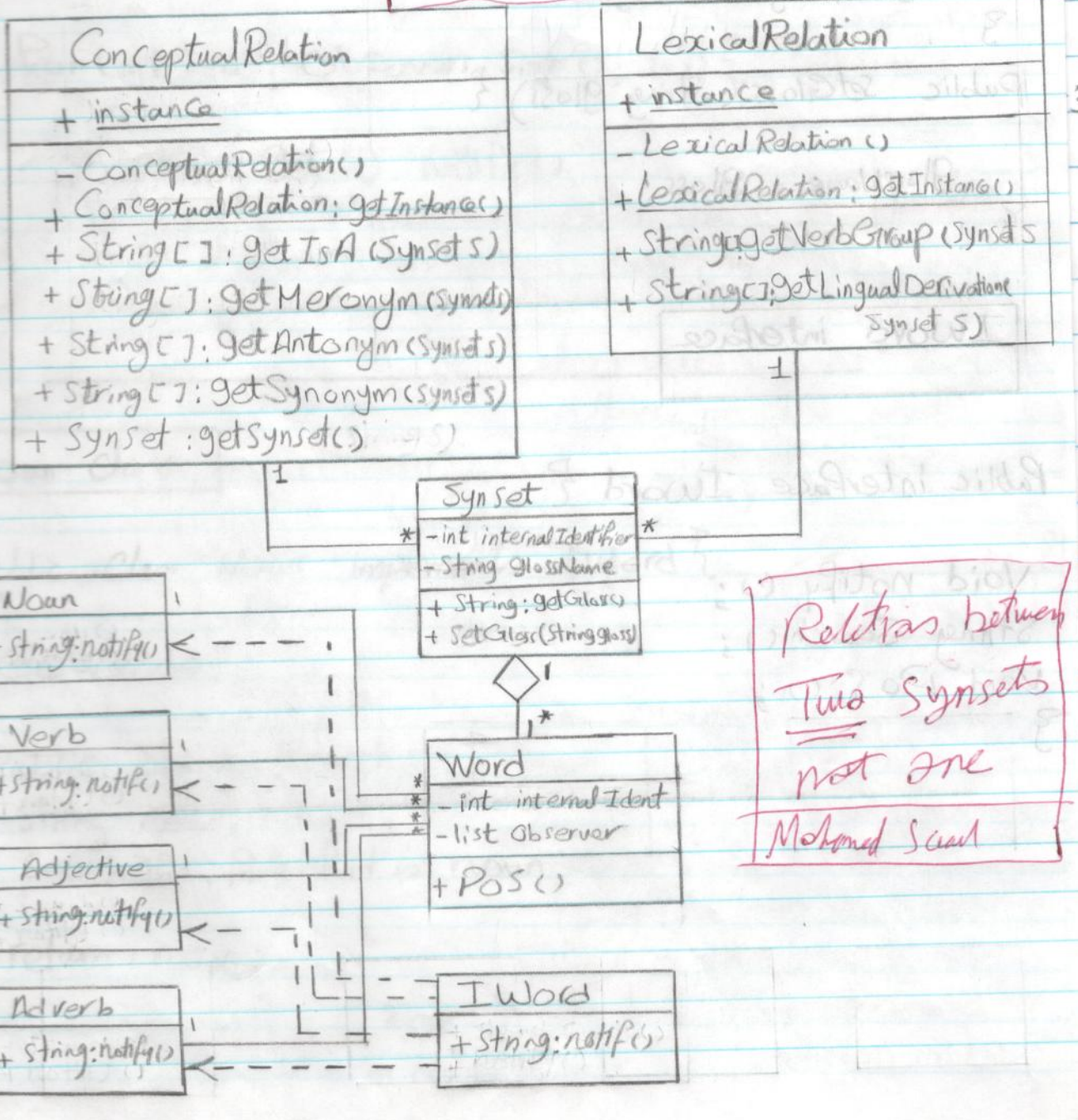
Names :

- Ahmed Eid Abd El_Monieam. (7)
- Radwa Adel Ahmed Hassan. (22)
- Shehab Kamal El_Senany. (32).
- Aliaa Ahmed Othman. (40).

Final OOP 2013.

it is better to use Inheritance
Mohamed Saad

1



Relations between Two Synsets not one
Mohamed Saad

1

2

Synset Class

```
Public Class Synset {

  Private int internalIdentifier;
  Private String glossName;
Public String getGloss() {
    return glossName;
  }
Public setGloss(String gloss) {

    glossName = gloss;
}
```

Iword interface

```
Public interface Iword {

 Void notify();
 String Search();
 Void POS();
}.
```

Word class

```
Public class word {

  Private int internalIdentifier;
  Private list observers;

  Public void Pos {

    For (int i=0; observers.size(); i++) {

      observers.get(i).notify()
  }
}
```

Noun class

```
Public class Noun implements IWord {

  @Override

  Public String Search() {
    String noun = null;
    Search the File if it is noun

    return noun;
  }

}
```

Verb class

```
Public class Verb implements Iword {

@override

Public String notify() {
    String verb = null;
     Search the File. if it is verb.
    return verb;
}
}
```

Adverb class

```
Public class Adverb implements Iword {
 @override.
Public String notify () {
    String adverb = null;
     Search the File. if it is adverb.
    return adverb;
}
}
```

Adjective class

```
Public class Adjective implements Iword {

@overide

Public String notify () {
   String adjective = null;
    Search the File if it is adjective
  return adjective;
}
}
```

ConceptualRelation class

```
Public Class ConceptualRelation {
  Public Static ConceptualRelation instance = null;

Private ConceptualRelation () {
};

Public Static ConceptualRelation getInstance () {
    if (instance == null) {
        instance = new ConceptualRelation ();
    }
return instance;
}

Public String [] getIsA (Synset s)
  String [] isA = null;
  Search the File for the is-A relationships and
  return the array

  return isA;
}
```

```
Public String [] getMeronym(Synset s)
String [] meronym = null;
Search the File For the meronym relationships
and return the array.

return meronym;
}.

Public String [] getAntonym (Synset s) {
String [] antonym = null;
Search the File For the antonym relationships
and return the array.

return antonym;
}

Public String [] getSynonym (Synset s) {
String [] Synonym = null;
Search the File For the Synonym relationships
and return the array

return synonym;
}
}.
```

LexicalRelation class

```
Public class LexicalRelation {

Public Static LexicalRelation instance = null;

Private LexicalRelation () {
}

Public Static LexicalRelation getInstance () {

  if(instance == = null) {
  instance = new LexicalRelation();
}

return instance;

}.

Public String [] getVerbGroup (synset s) {

  String [] VerbGroup = null;

Search the File For verb group relationship and
return the array if Found

return VerbGroup;

}.
```

Question 1:

a Factory Factory

msc

r's

aword Net

a Conceptual

Public String [] getLingualDerivative (synset s)

String [] lingualDerivative = null;

Search the file for the lingual Derivative of the word and return it if found.

return lingualDerivative;

}

}

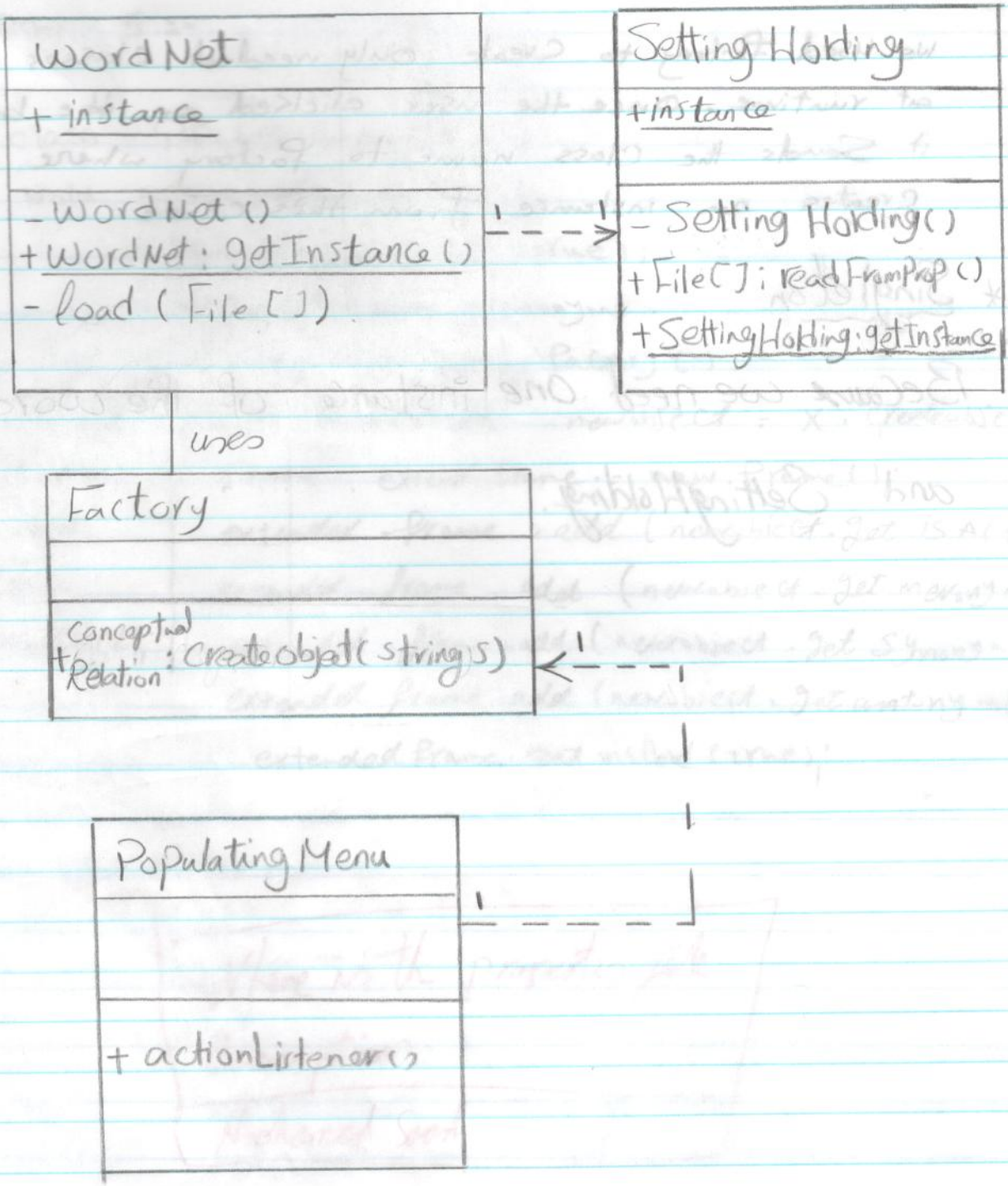
uestion 3:

- the design Pattern is observer.
- Subject : word
- observers : noun S verb S adj. S adv.
- Subject (word) implment (interface) I word.
- Here we used observer design Pattern because when word get user's input. it will notify ll observs in array List. after they are observed they returned adv, adj, noun and verb For user's nput. and word can only notify specific bserver for specific output.

This is wrong answer
WordNet is static data
so Observer can't Fit
here
WordNet keep fixed
Information about words
not dynamic when the
user type it !!

Mohamed Sead

4



Question 7:

a Factory Factory

a WordNet

a Conceptual

* Factory

We used factory to create only needed classes at runtime. Once the user clicked on the bar it sends the class name to factory where it creates an instance from this class.

* Singleton

Because we need one instance of the WordNet and SettingHolding.

Question 5 :-

a - b class BPulate menu {

Void actionListner ( ) {

Frame_1 . set visible (true);

actionListner ⟶ synonyms .

Factory x = new factory ( )

{ ConceptialRelation newobject = x . createobject( );

Frame extend_frame = new frame( );

extended_frame . add (newobject . get IsA(temp)

extended_frame . add (newobject . get meronym(temp

extended frame . add (newobject . get Synonym(temp

extended frame . add (newobject . get antonym(temp

extended frame . set visible (true);

Synset temp =newobject. get Synset (currentword);

}

Where is the properties file description

Mohamed Soud

@Question 1:

a Factory Factory

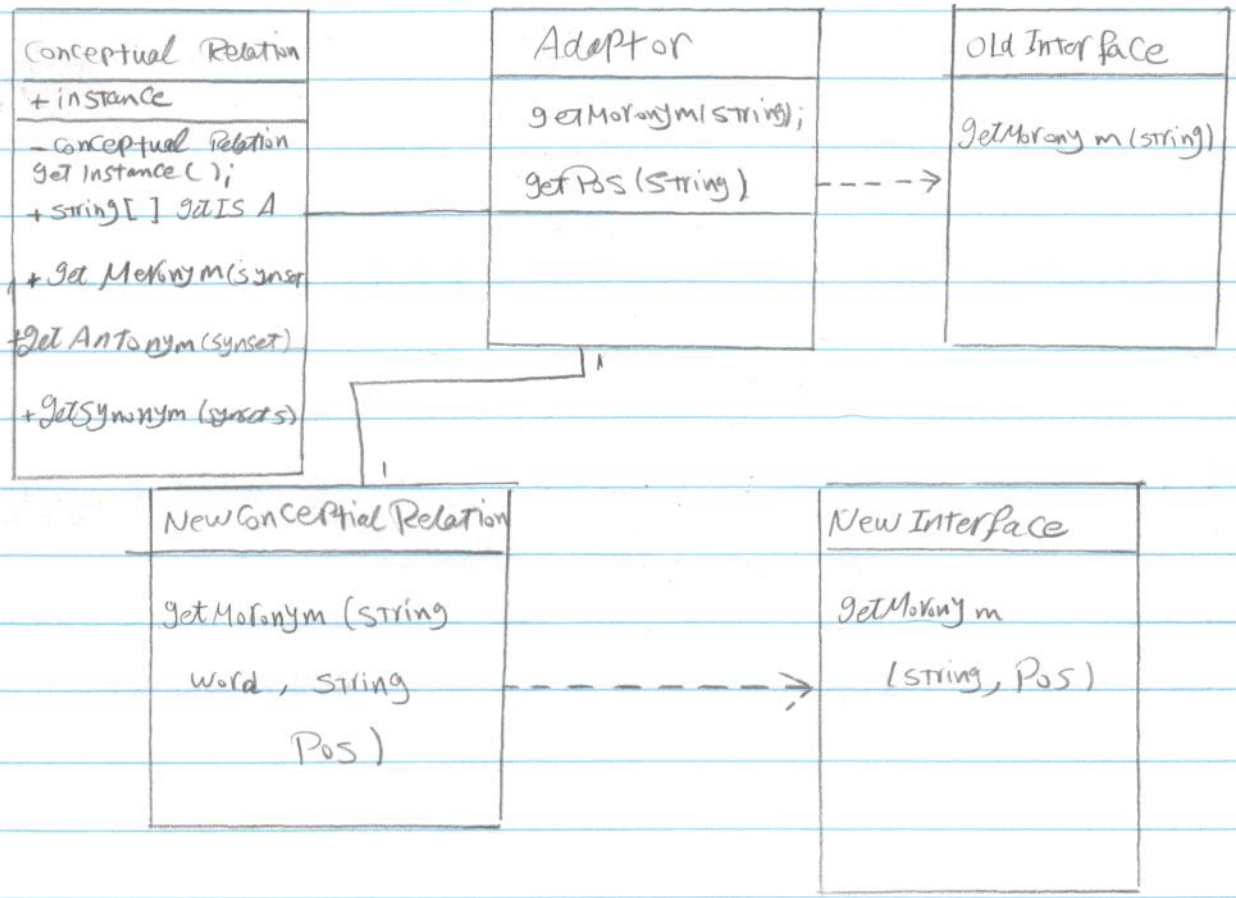
a word Net

a Conceptual

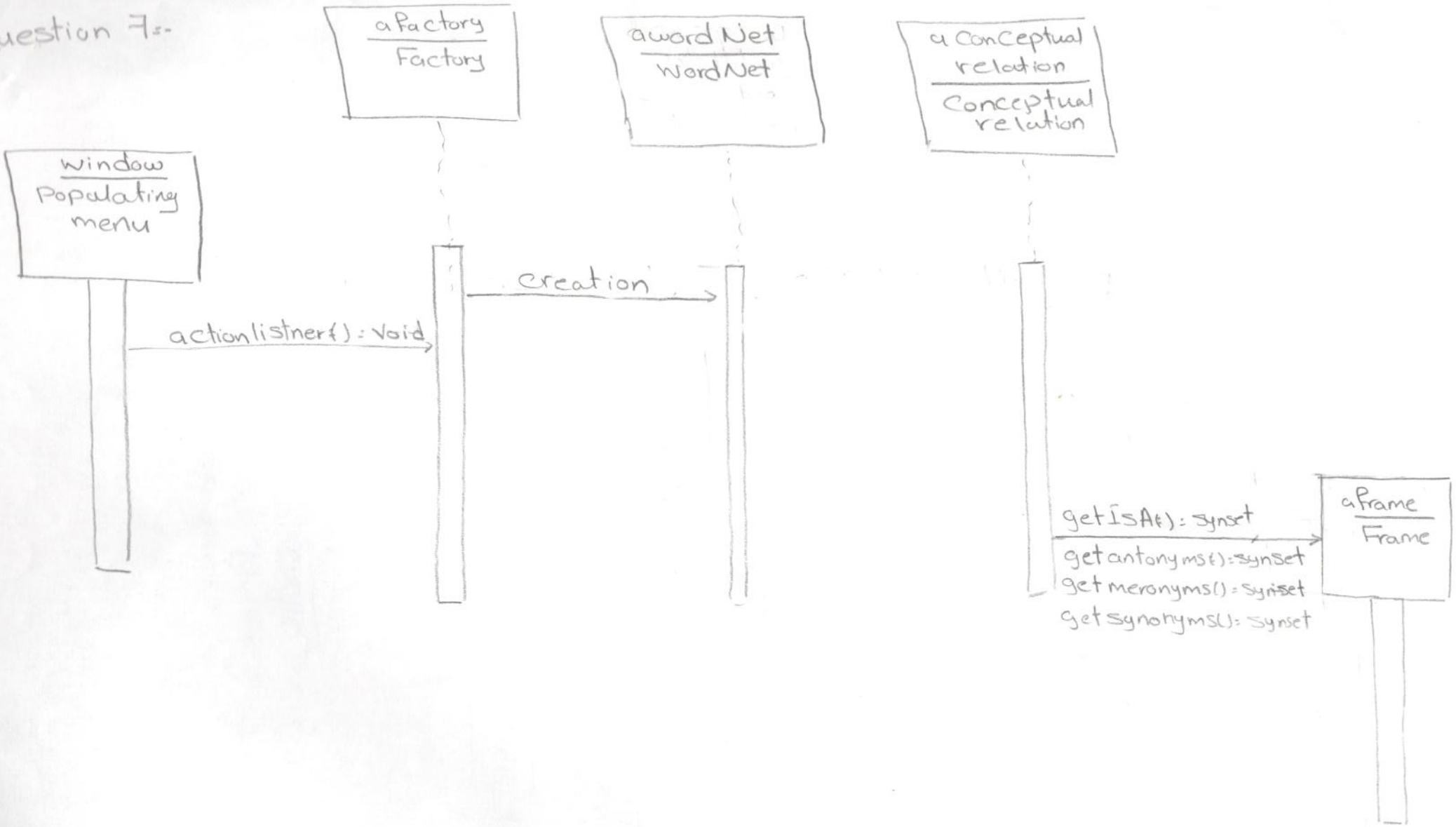
Question Six:

a- The design Pattern is adaptor, we will use it to use old interface to send only word as a Parameter to the method. and in some class we need to calculate Pos and resend the word and the Pos which we calculated to the new interface String [ ] get Meronym (String word , String Pos).

b-



Question 7:-


aFactory
Factory
aword Net
WordNet
a Conceptual relation
Conceptual relation
window
Popalating menu
creation
actionlistner() : void
getIsA() : synset
getantonyms() : synset
get meronyms() : synset
get synonyms() : synset
aFrame
Frame