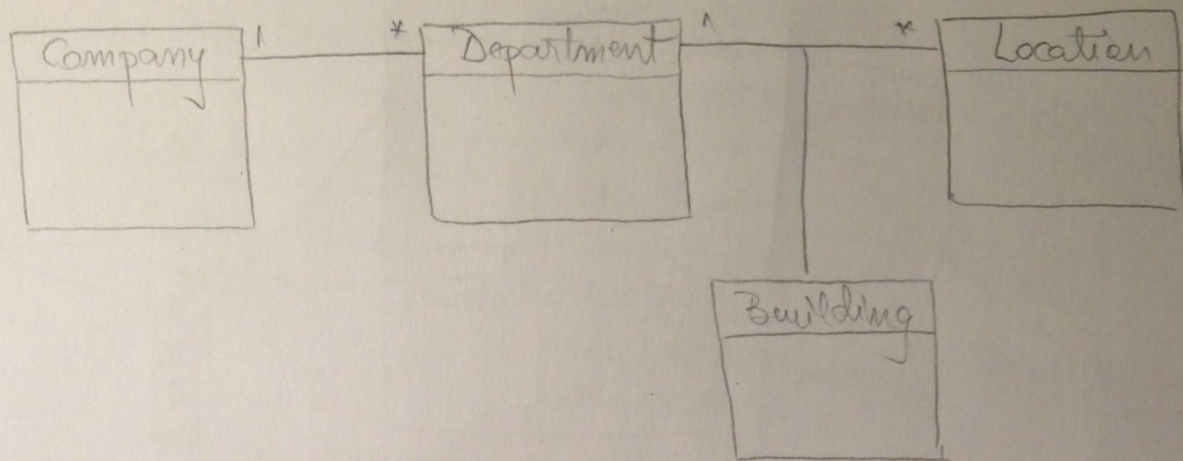
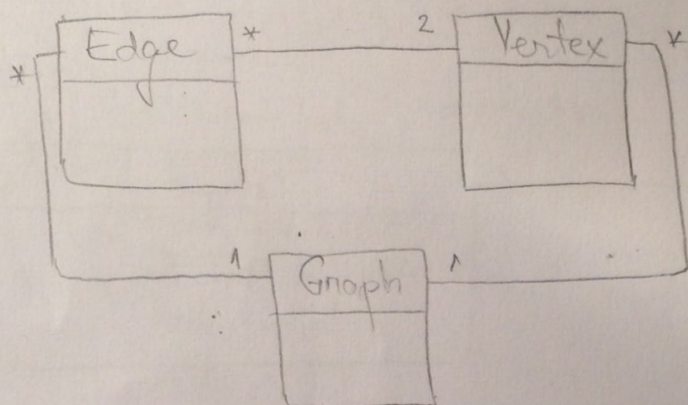


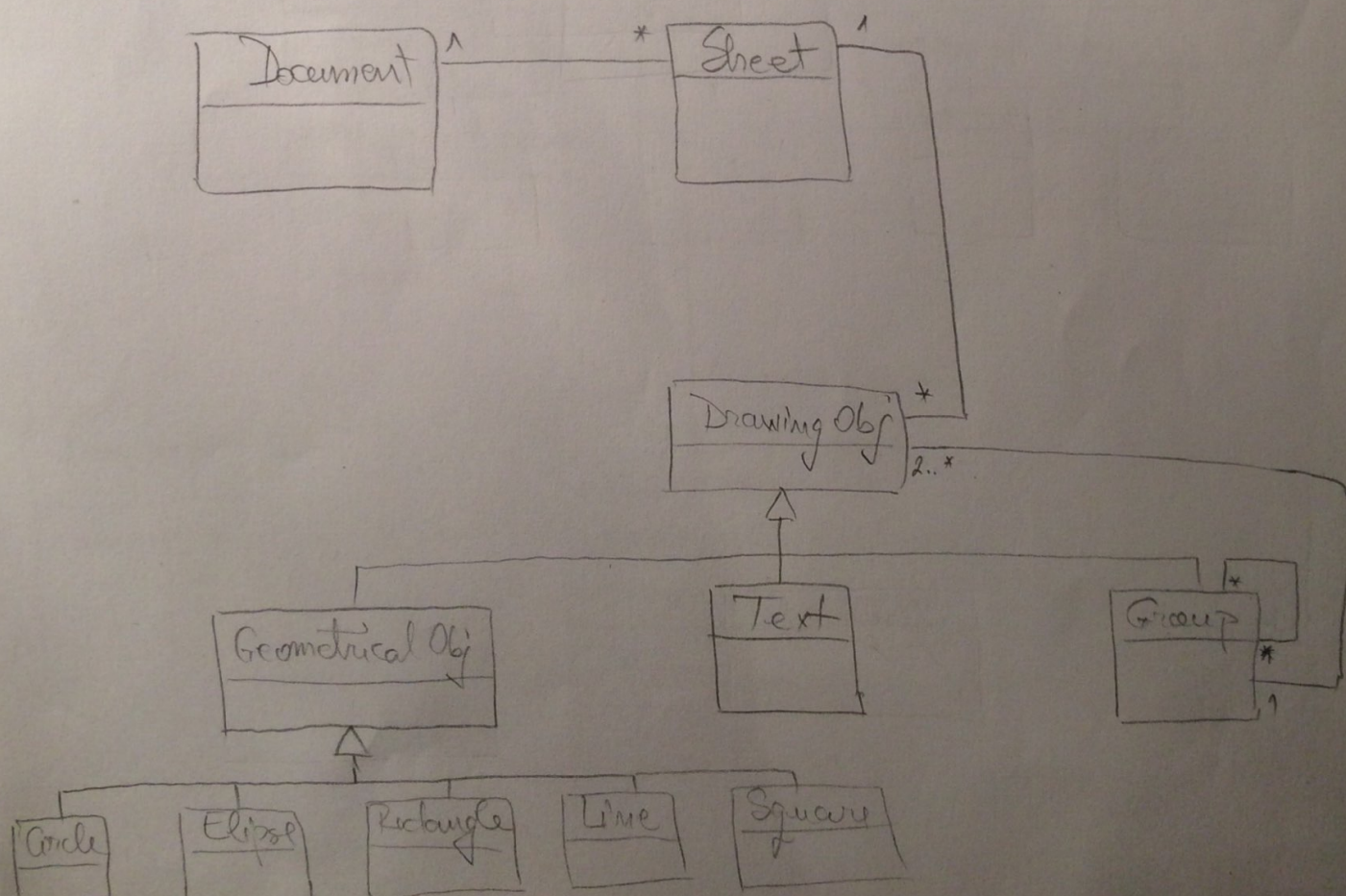
P2.



P1.

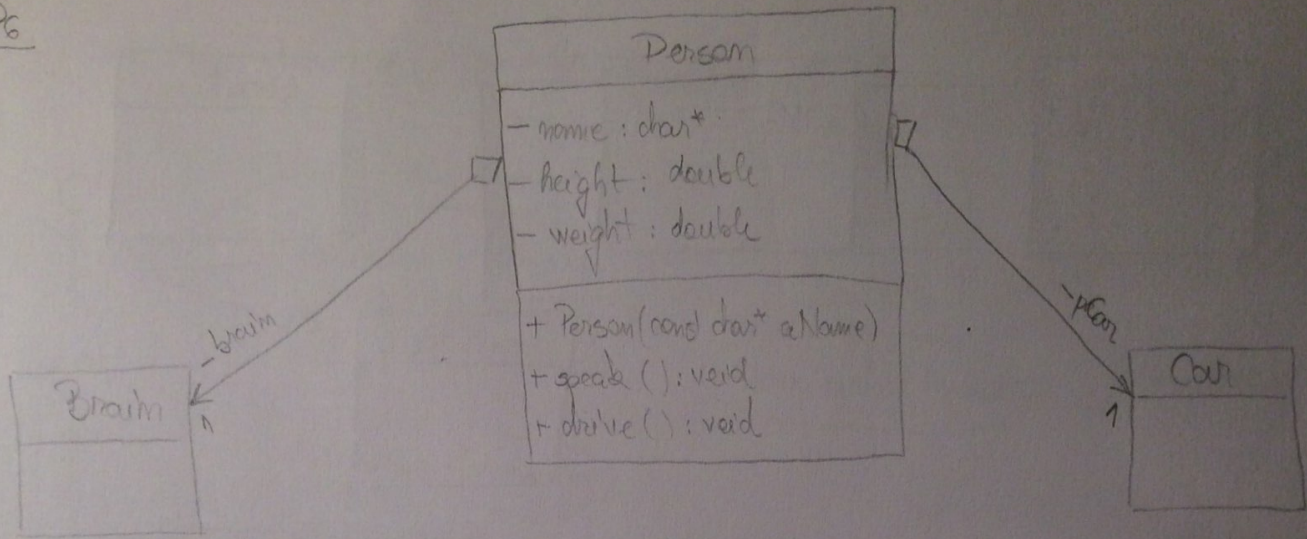


P3.

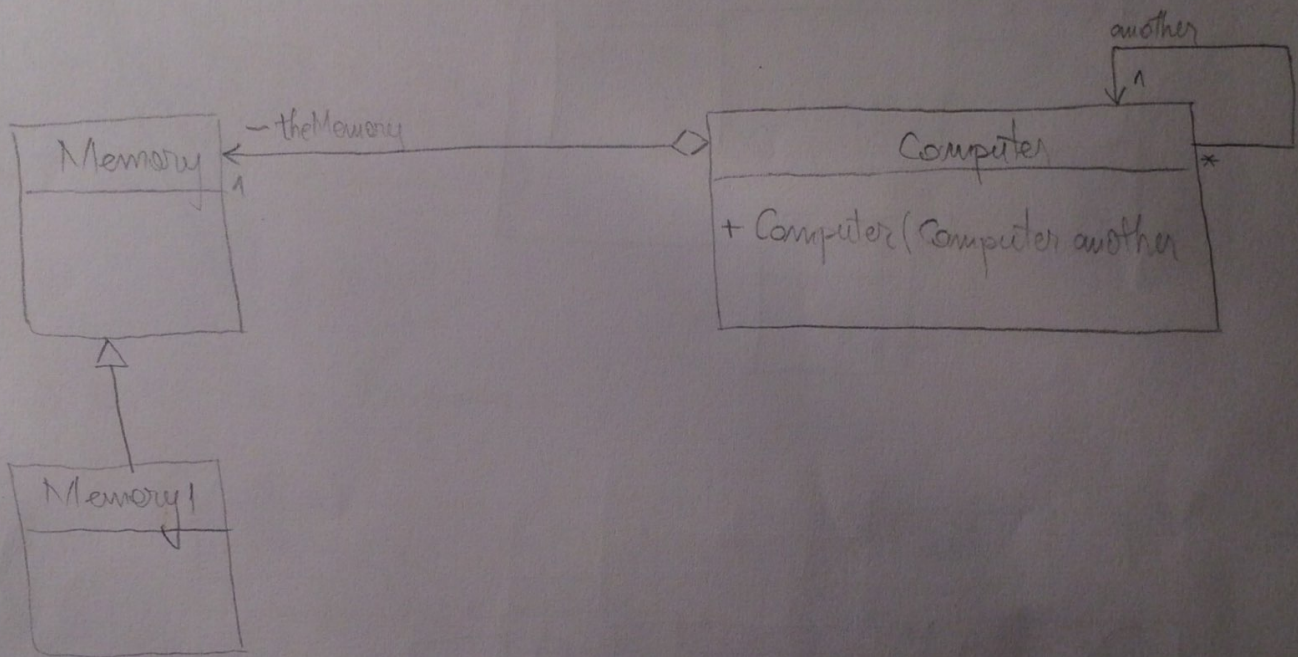




P6

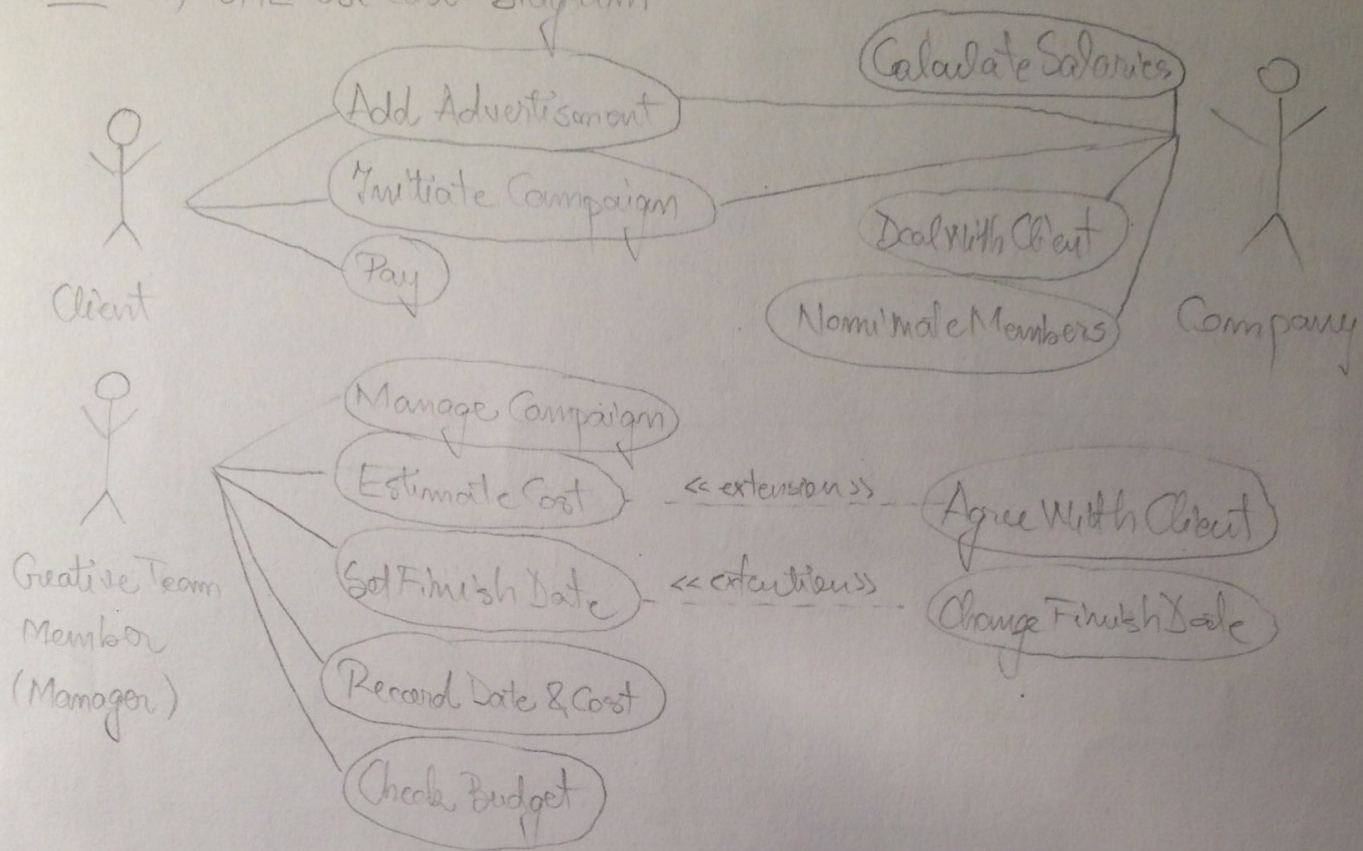


P7

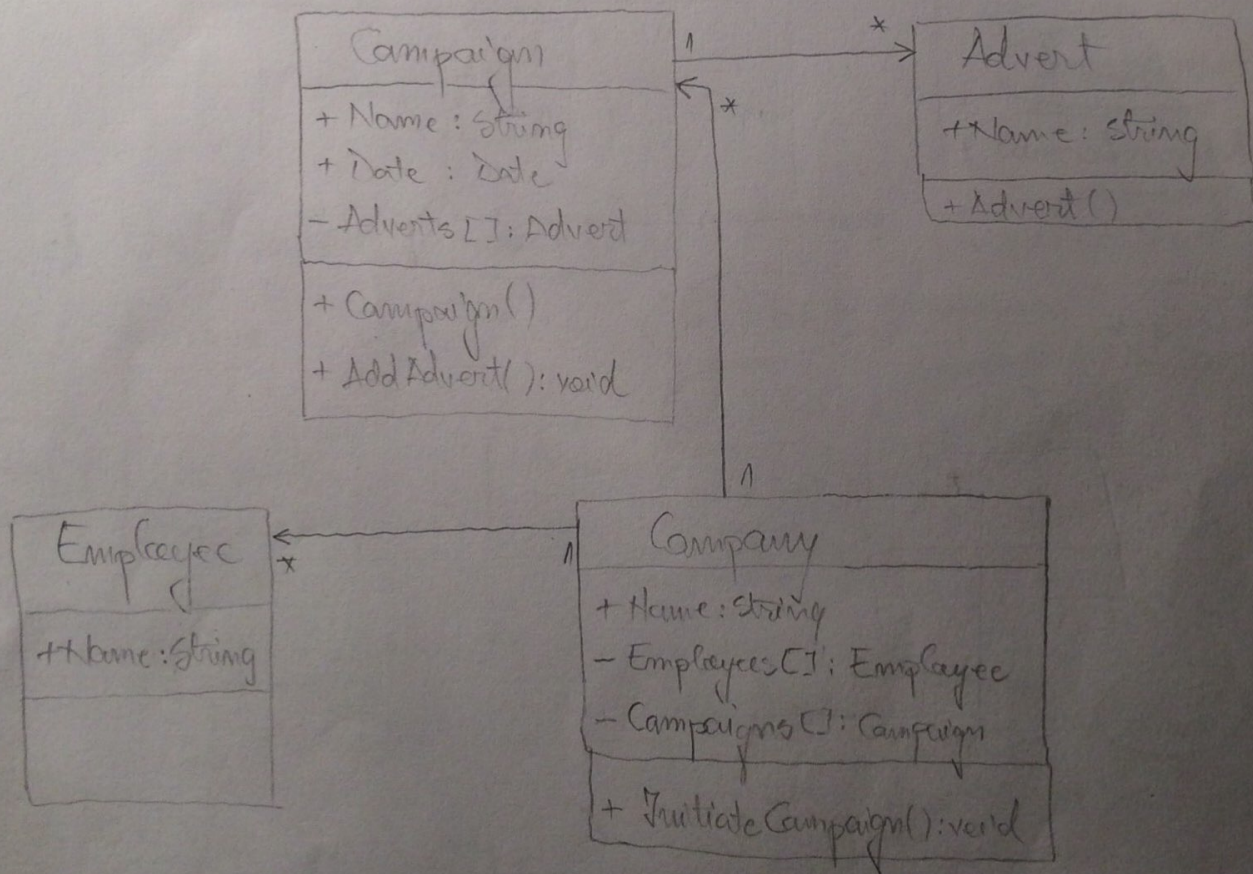




P4. a) UML Use Case Diagram

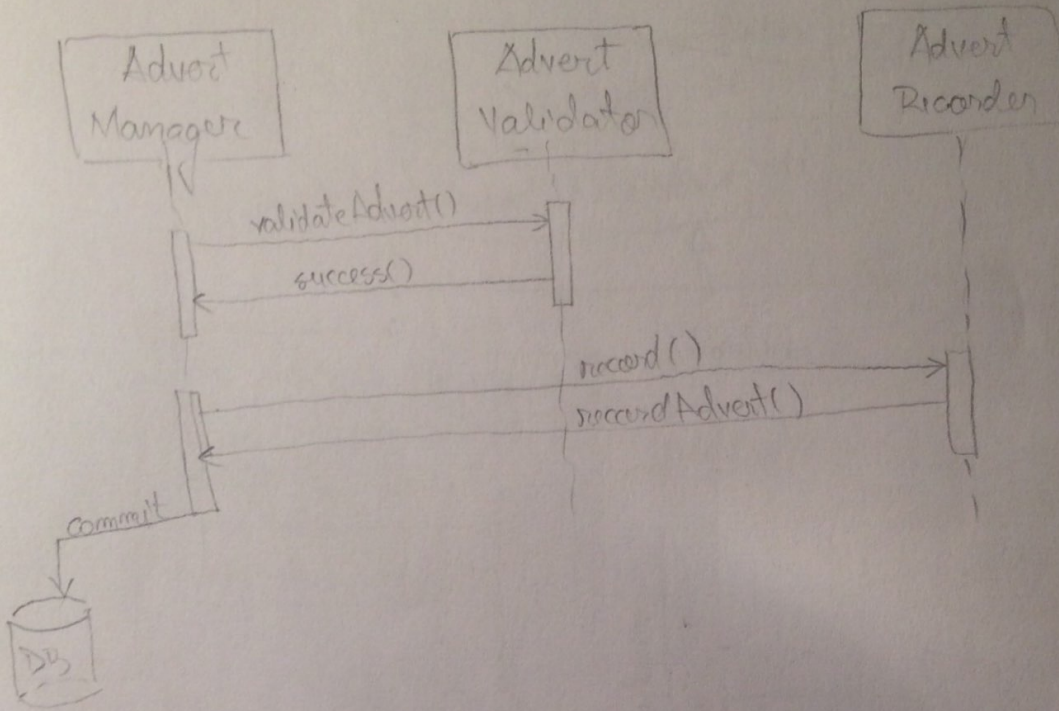


b) UML Class Diagram

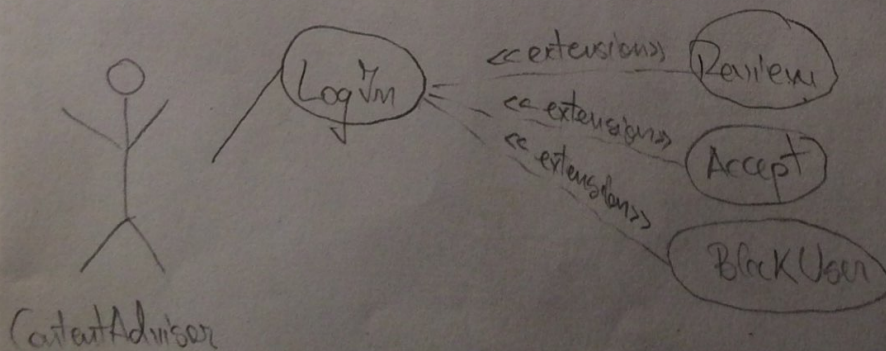
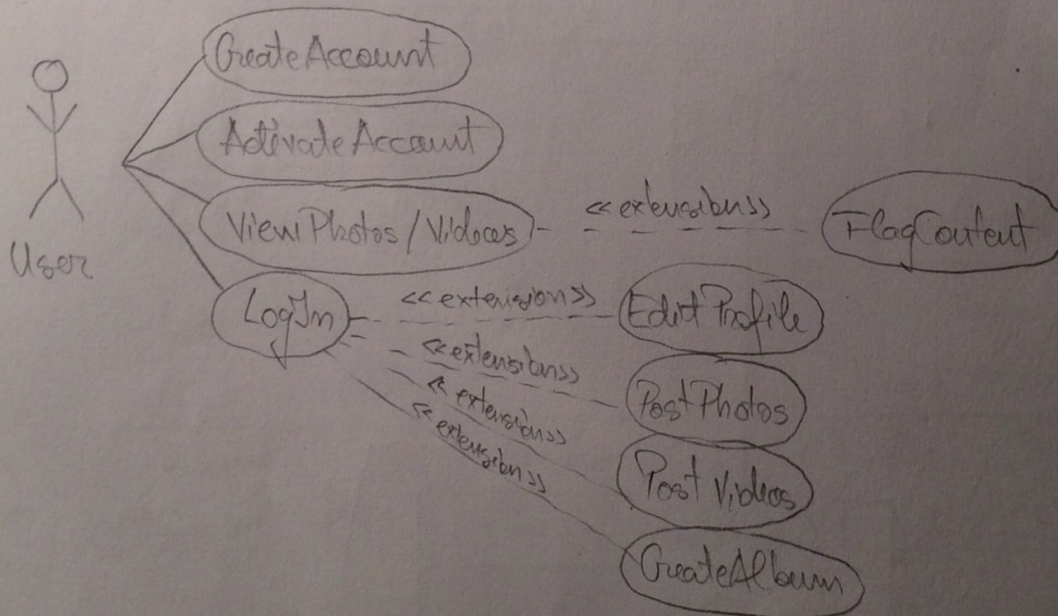




C). UML Sequence Diagram  
Use Case: Add Advertisement

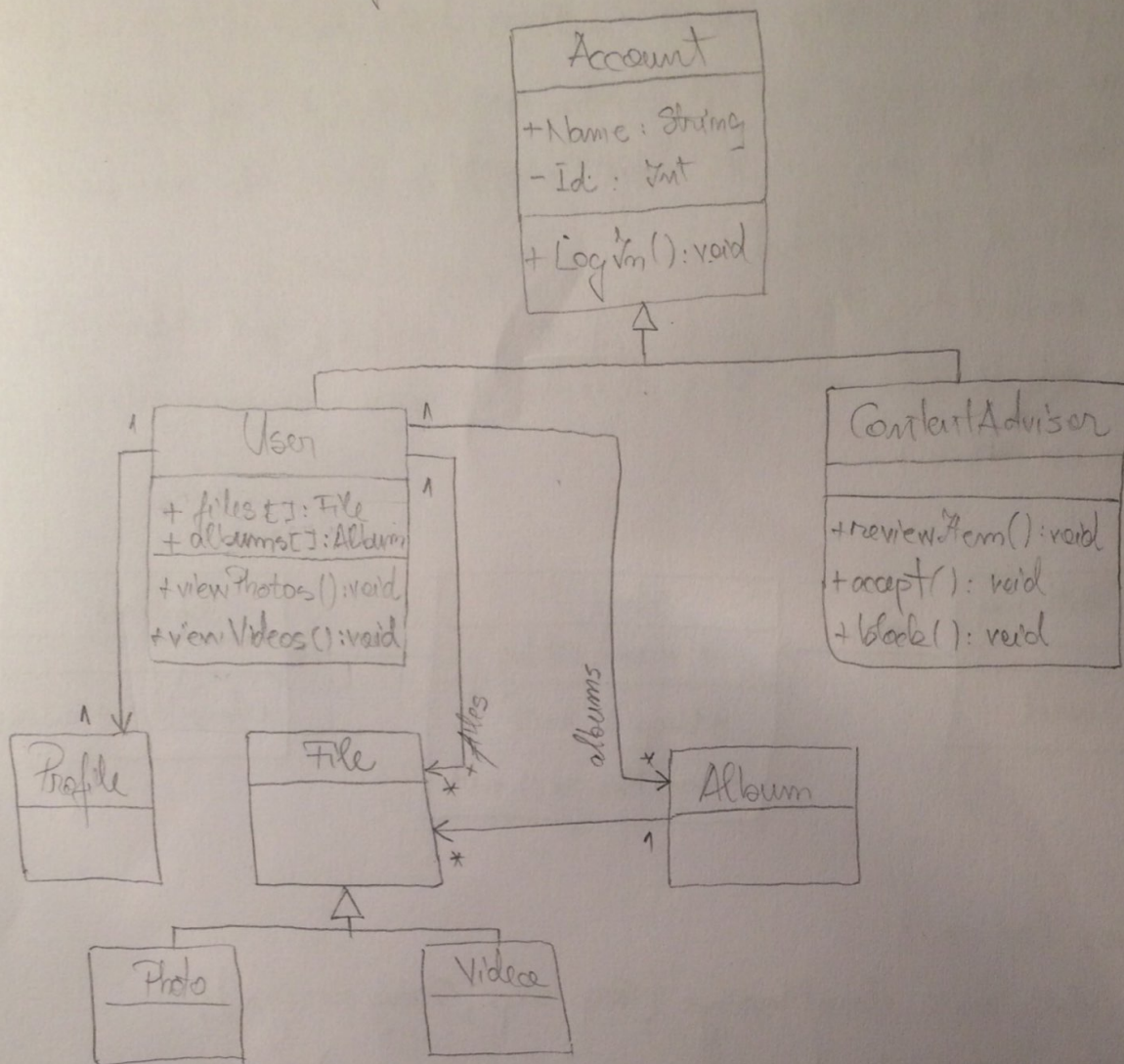


P5. a) UML Use Case Diagram



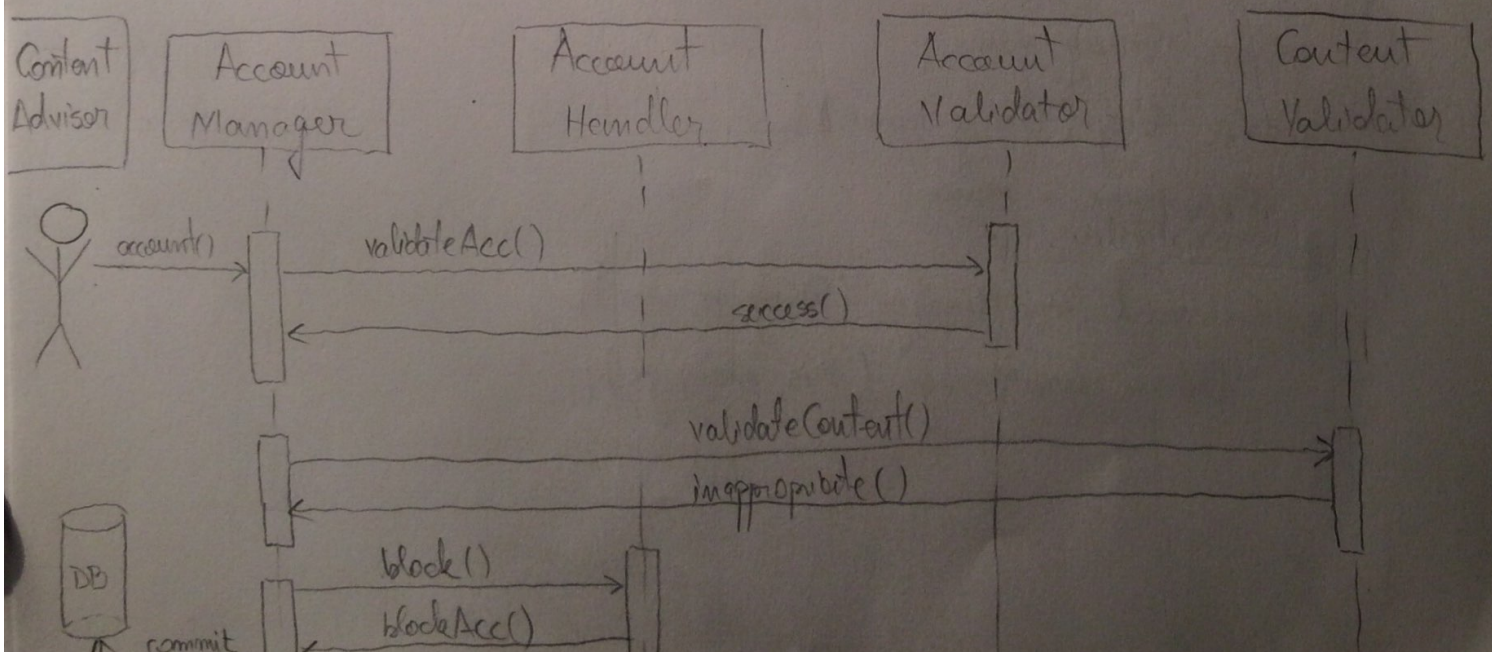


## b) UML Class Diagram



## c) UML Sequence Diagram

Use Case : Block User

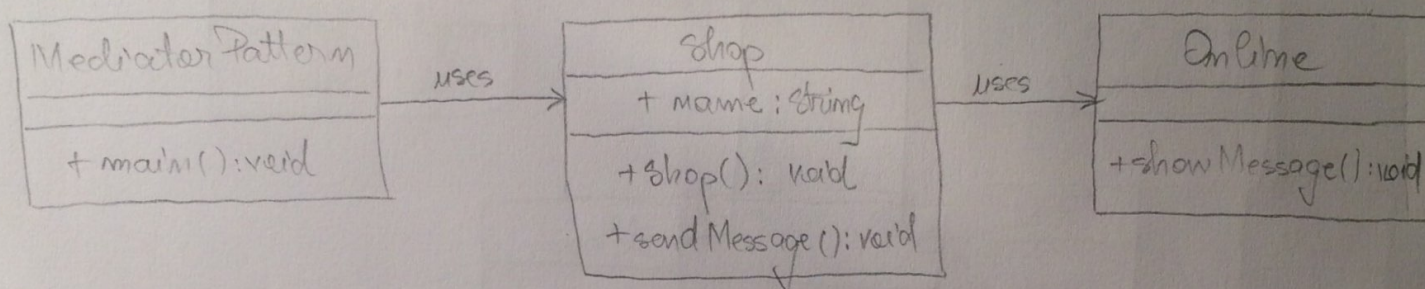




## P8. Design Pattern: Mediator

Demo: Example of a shop where multiple shops can send messages to an online shop and it is the responsibility of online shop to show the messages to all shops (in order to announce the state of the stock).

I've created two classes: Shop and Online (and MediatorPattern class which will use Shop objects to show communication between them).



```
public class Online {
    public static void showMessage (Shop shop, String message) {
        System.out.println (shop.name + " " + message);
    }
}
```

```
public class Shop {
    public String name;
    public Shop (String name) {
        this.name = name;
    }
    public void sendMessage (String message) {
        Online.showMessage (this, message);
    }
}
```



```
public class MediatorPattern {
```

```
    public static void main (String[] args) {
```

```
        Shop a = new Shop ("A");
```

```
        Shop b = new Shop ("B");
```

```
        a.sendMessage ("Hi! Stock is...");
```

```
        b.sendMessage ("Hi! Stock is...");
```

```
    }
```

```
}
```